TEXAS STATE SOIL & WATER CONSERVATION BOARD

SEMI – ANNUAL REPORT

TO THE

GOVERNOR,
LIEUTENANT GOVERNOR,
AND
SPEAKER OF THE HOUSE

JANUARY 1, 2004

FORWARD

In response to S.B. 1828 passed by the 78th Texas Legislature in Regular Session, 2003, the Texas State Soil and Water Conservation Board presents this review of its programs and activities. S.B. 1828 added §201.028 to the Texas Agriculture Code to provide that the TSSWCB shall prepare and deliver to the Governor, the Lieutenant Governor, and the Speaker of the House of Representatives a report, not later than January 1 and July 1 of each year, relating to the status of the budget areas of responsibility assigned to the State Board including outreach programs, grants made and received, federal funding applied for and received, special projects, and oversight of water conservation district activities.

The FY04 Operating Budget versus Expenditures is attached to this report. Information on grants made to local districts and other entities is incorporated within the program section it involves. Federal grants received for the Clean Water Act are provided in that section.

Attached, as an addendum of this report, will be the Brush Control Program 2003 Annual Report. §203.056, Texas Agriculture Code, requires the State Board, before January 31 of each year, to submit a report of the activities of the Brush Control Program during the immediately preceding calendar year.

The Texas State Soil & Water Conservation Board takes pride in the accomplishments and remarkable progress that have been made in soil and water conservation in this state. Often environmental successes are slow to be realized. We are proud to report one success story in this report and that involves reducing the level of Atrazine in several water bodies, particularly the Aquilla Reservoir in the Hill County-Blackland SWCD.

However, we recognize there remains a continuing challenge and an ongoing need to ensure our land has the capability to produce food and fiber for future Texans. Because of changes in land use, ownership, technology, and population growth, the need for soil and water conservation programs will remain critical. Texas has a finite number of acres to provide for the needs and desires of citizens and visitors, and this places an ever-increasing demand on agricultural land. Farmers and ranchers face complex decisions concerning the best ways to manage and utilize the land available to them.

We believe that soil and water conservation programs must remain dynamic as land uses change and technology improves to make some conservation practices more capable of meeting demands on soil and water resources. We also maintain the belief that the purpose of the soil and water conservation program is to promote the wise use of our renewable natural resources and provide for the conservation and enhancement of the soil and water resources of this state through and by the dynamic decisions of local soil and water conservation districts which promotes the use of each acre of land within its capabilities and treating it according to its needs.

From the beginning, the Texas State Soil and Water Conservation Board and local soil and water conservation districts have formed an organizational framework through which various complex governmental conservation programs are delivered to local landowners and operators. This relationship has successfully been utilized to disseminate sound management techniques and practices to maintain individual productive land uses to provide for the needs of present and future generations.

To the landowners of Texas, the individual soil and water conservation district directors, and the many agencies and organizations assisting and working with our programs, we offer our sincere thanks.

Table of Contents

	Page
Historical Background	5
Organization	7
Staff	7
Soil And Water Conservation Districts	9
Annual State Meeting Of Soil And Water Conservation District Directors	10
Director Mileage And Per Diem	10
District Technical Assistance Funds	10
District Sub-Chapter H Funds	10
District Conservation Assistance Program	11
Programs & Activities Supporting The TSSWCB	11
Total Maximum Daily Load (TMDL) Program	11
Clean Water Act, §319(h) Grant Program	11
Water Quality Management Plan (WQMP) Program	13
Poultry Water Quality Management Plan (WQMP) Initiative	15
North Bosque River Watershed Initiative	16
Dairy Manure Export Support (DMES) Program	17
Comprehensive Nutrient Management Plan (CNMP) Program	18
Water Quality Management Plan (WQMP) Program Implementation in the North Bosque Watershed	19
Clean Water Act, §319(h) Grant Projects in the North Bosque Watershed	19
Texas Atrazine Initiative	22
Background	22
Development of the Texas Approach	23
Implementation of the Atrazine Initiative	23
Atrazine Initiative Results – A Success Story	25
Coastal Management Program	25
Background	25
Current Status	26
Information Technology	27
Construction of Wireless Local Area Networks at Regional Offices	27
Construction of Agency Wide Area Network	27
Email Virus Scanning	28
Virtual Private Network	28
SWCD Email Support	28
Email Spam Scanning	28
Secure POP3 Service	28
Network Specialist Duties	29
E-Mail Services	29
Web Hosting	29
Local Area Network Infrastructure	29
Wide Area Network Infrastructure	29
Financial/Accounting/HR	29
Application Support	29

Security Services	30
User Services	30
Operations/ Other	30
Public Information /Education Report FY03	30
General Overview	30
2003 Summer Teacher Workshops	31
2003 Texas Conservation Awards Program	31
Outstanding Conservation District	31
Resident Conservation Rancher	32
Resident Conservation Farmer	32
Absentee Conservation Farmer/Rancher	32
Water Quality Management Plan	32
Essay Contest	32
Poster Contest	32
Business/Professional Individual	32
Conservation Teacher	33
Wildlife Conservationist	33
Conservation Homemaker	33
Conservation District Employee	33
Forestry Conservationist (Area IV only)	33
Soil & Water Stewardship Public Speaking Contest	33
Wildlife Alliance For Youth	35
State Woodland Clinic and Contest	36
Regional Woodland Clinic	36
Conservation Education Video Library	37
Conservation Education Models	37
Nonpoint Source (NPS) Pollution Watershed Flow Model	37
Groundwater Flow Model	37
Public Information and Education Program Transition	38
Brush Control Program	38
2003 Annual Brush Control Report	Atch 1
TSSWCB FY04 Operating Budget vs. Expenditures	Atch 2

HISTORICAL BACKGROUND

In the early history of the United States, the conservation of soil and water resources was not often considered by those involved in agriculture. Quite the contrary was true in fact. Land was cleared and put into farm production. When the land quit producing at a profitable level, the farmers merely moved on to new land farther west and started the process over again. There was no need to be concerned with soil conservation, as there was a seemingly unlimited supply of virgin land waiting to be tilled. This process continued through the 1800s and into the early 1900s. With the outbreak of World War I, farmers in the Great Plains states were encouraged to break out native grassland to grow wheat and other foodstuffs to feed the nation and the world. As a result of these and other unwise management practices and the fact that the farmlands were experiencing long periods of drought, the 1930s produced some of the worst dust storms the nation had ever seen. Clouds of dust rolled across the plains states sending dust storms through the south and into the nation's capitol. At the same time, the nation was in the midst of a great economic depression. The federal government, seeking ways to put people back to work and encourage conservation, created the Civilian Conservation Corps and Soil Erosion Service. Through these mechanisms, demonstration projects were initiated to train technicians and to educate the public in ways to conserve soil resources. These programs were successful in putting people back to work, but lacked the local ties to establish lasting conservation programs.

One of the early day leaders in the national effort to control soil erosion was Hugh Hammond Bennett from North Carolina. After graduation from the University of North Carolina in 1903, Hugh Bennett took a job with the Bureau of Soils in the United States Department of Agriculture. Because of his experience, scientific knowledge and leadership ability, he was put in charge of the Soil Erosion Service when it was created in 1933. In 1935, P.L. (Public Law) 46 was passed creating the Soil Conservation Service within the U.S. Department of Agriculture and Hugh Bennett became the first Chief of the agency. He soon became internationally known for his accomplishments in conservation work.

With the help of Congressman Buchannan from Columbus, Texas, Hugh Bennett was able to persuade President Franklin Roosevelt that the soil resources of this nation were being wasted. He convinced the President that a Model Soil Conservation Act should be developed and sent to the governors of each state for passage by their state legislatures. The purpose of this Model Act would be to develop programs at the state and local level to control soil erosion.

In 1936, such a Model Act was sent to the governors with the endorsement of President Roosevelt. The Model Act, developed in Washington, was patterned after the Texas Wind Erosion Act, the Grass Conservation Acts in the Northern High Plains and certain water conservation district law.

In 1937 legislation was introduced in the Texas Legislature based on this Model Act. It is reported that as many as 25 different versions of this soil conservation law were considered before a final version was passed. There was much heated discussion of the proposed legislation. When the final version was adopted, the bill contained many undesirable features. The law would have set up Soil Conservation Districts automatically on a county basis and made County Commissioners Courts the governing body. A portion of the county tax was to be used to finance the program and county agricultural agents were to be the administrative officers.

A number of agricultural leaders from across the state had, by this time, become concerned about the newly passed legislation. It was their opinion that, if the responsibility for installing and maintaining conservation measures lay in the hands of the land owners, the control of such a program should also be

in their hands. As a result of these and other concerns, a group of landowners led by V.C. Marshall of Heidenheimer, Texas, convinced the Governor to veto the 1937 legislation.

Hard feelings among agricultural leaders resulted from the attempt to pass this soil conservation law. Under the leadership of Mr. Marshall, a concerted effort was made during the interim between legislative sessions to heal the old wounds and to put together a version of a law that would be generally accepted by the farmers and ranchers of Texas. Mr. Marshall organized a committee of leaders from across the state to promote the passage of a new Soil Conservation Law. He traveled many miles at his own expense seeking the views of agricultural leaders and promoting the idea of the Soil Conservation District Program.

The key points Mr. Marshall felt should be included in the new law were that (1) farmers and ranchers should determine whether or not a Soil Conservation District was needed and hold a local option election prior to the establishment of the district; (2) the program should be controlled by landowners; and (3) the Soil Conservation Districts should have no taxing authority or the power of eminent domain.

In 1939 the Texas Legislature passed H.B. (House Bill) 20 which incorporated those features and was the first Soil Conservation Law for the state. The law created the State Soil Conservation Board and allowed for the creation of the Soil Conservation Districts. Mr. Marshall was elected as the first Chairman of the Soil Conservation Board and later resigned to become the first Executive Director of the agency.

On April 30, 1940, the Secretary of the State issued Certificates of Organization for the first 16 Soil Conservation Districts paving the way for the program we now operate. Today, Texas has 216 local soil and water conservation districts that encompass more than 99% of the state.

As previously mentioned, the Model Act endorsed by President Roosevelt was in part patterned after the Texas Wind Erosion Act. Texas was already making attempts to address soil conservation as a result of the "Dust Bowl" days of the 1930s. The 44th Legislature in 1935 passed legislation authorizing the establishment of Wind Erosion Conservation Districts. This law provided for the creation of districts to "conserve the soil by prevention of unnecessary erosion caused by winds, and the reclamation of lands that have been depreciated or denuded of soil by reasons of winds." A number of such districts were created. With the passage of the Soil Conservation District Law in 1939, those Wind Erosion Conservation Districts, which were created, soon became dormant.

In 1975, Governor Dolph Briscoe, by Executive Order, designated the TSSWCB as lead agency to assume the planning and management responsibility for control of agricultural and silvicultural nonpoint source pollution as required by the Federal Water Pollution Control Act.

In 1981 the 67th Legislature passed H.B. 1436, which for the first time codified the agricultural laws of Texas. Title 7, Chapter 201 of this code contains the portion pertaining to Soil and Water Conservation.

In 1985 the 69th Legislature passed S.B. 1083 creating a Brush Control Program in Texas and granting new powers and responsibilities, without funding, to the TSSWCB and Soil and Water Conservation Districts under Chapter 203 of the Agriculture Code. In 1999, the TSSWCB received its first appropriation in the FY00-01 biennium to control water-depleting brush and trees, such as cedar and mesquite. The program received $9.1 million to establish a pilot project in the North Concho Watershed.

In 1993, the 73rd Legislature passed S.B. 503 which named the TSSWCB the lead agency to address water quality issues relating to runoff from diffused, or nonpoint sources resulting from agricultural and forestry operations. In 1999, the Legislature expanded the TSSWCB's environmental mission and appropriated money to address water pollution from nonpoint sources under a separate, federally mandated program.

The leaders who framed the Texas Soil and Water Conservation Law in 1939 recognized that landowners and operators of private land constitute the basic resource for the conservation of our renewable natural resources. Without the support and willing participation of private landowners and operators in the development and implementation of soil and water conservation programs there is little hope of success. Local soil and water conservation districts led by farmers and ranchers who know the land and the local conditions and problems have the means to develop conservation plans that address each acre of land specific to its needs to solve or reduce the severity of its problems.

ORGANIZATION

Since inception, the TSSWCB has been governed by five board members, elected by delegates from each of five regions of the state's 216 local soil and water conservation districts. Elections occur annually at regional conventions of the local soil and water conservation districts, with members serving two-year staggered terms. However, with the enactment of S.B. 1828 by the 78th Legislature, two Governor appointees join the five elected board members to create a seven-member board. Currently the two appointed positions are unfilled.

Elected State Board members must be 18 years of age or older; hold title to farmland or ranchland; and be actively engaged in farming or ranching. The Governor appointees must be actively engaged in the business of farming, animal husbandry, or other business related to agriculture and wholly or partly owns or leases land used in connection with that business; and may not be a member of the board of directors of a conservation district.

The State Board elects its own Chair and generally meets every other month, unless specific programs or issues require more immediate action. The following list shows the current Board members and shows which State Board Region they represent.

Texas State Soil and Water Conservation Board

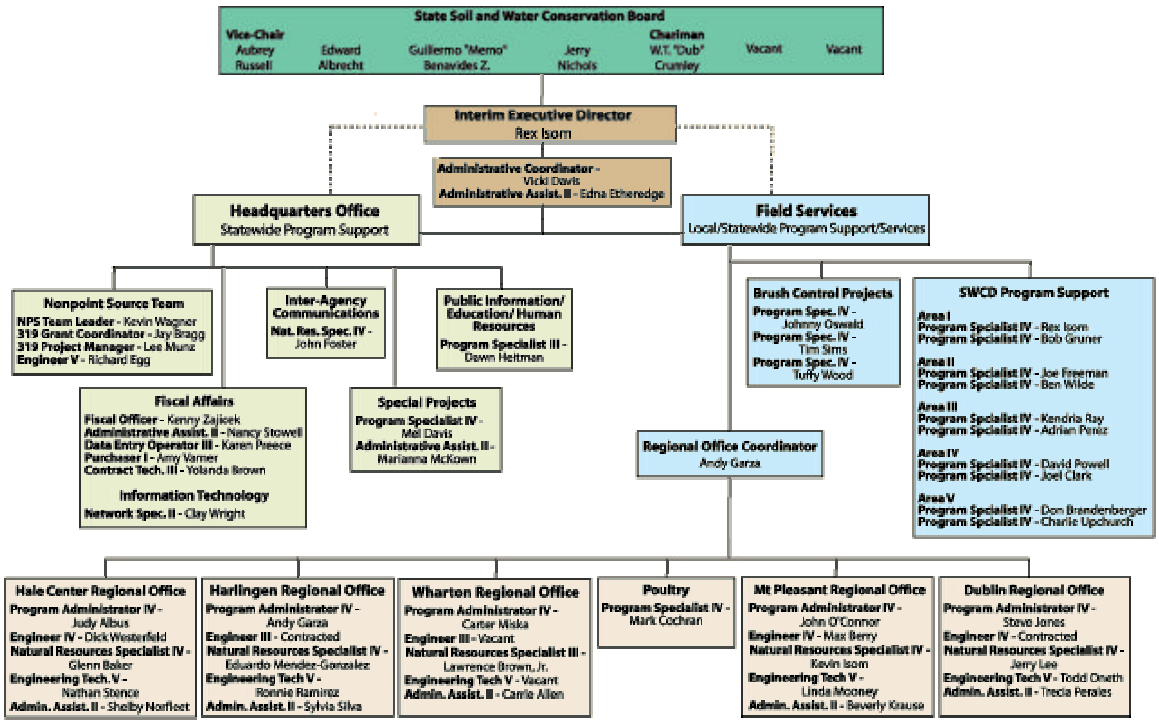
Member Name	Region	Term	Residence
Aubrey L. Russell	#1	May 5, 2003 – May 3, 2005	Panhandle
Edward G. Albrecht	#2	May 7, 2002 – May 4, 2004	Comfort
Guillermo "Memo" Benavides Z.	#3	May 5, 2003 – May 3, 2005	Laredo
Jerry D. Nichols	#4	October 1, 2003 – May 4, 2004	Nacogdoches
W.T. "Dub" Crumley	#5	May 5, 2003 – May 3, 2005	Stephenville

STAFF

The TSSWCB began downsizing in July 2003 and in that process appointed Rex Isom as Interim Executive Director. Mr. Isom continues, as of this date, to serve in that capacity, carrying out the directives of the State Board and directing staff efforts.

We emphasize our agency philosophy as stated in our Strategic Plan, "The State Soil and Water Conservation Board will act in accordance with the highest standards of ethics, accountability, efficiency, and openness…. We approach our activities with a deep sense of purpose and responsibility." Mr. Isom, as Interim Executive Director, is leading the agency in that direction and we expect all employees to follow that lead.

On December 1, 2002 the TSSWCB employed 62 staff, 28 of which worked in the Temple headquarters. The remaining 34 employees were field staff, either working out of their homes or located in the five regional offices located throughout the state. The FY04 budget for personnel was reduced and on December 1, 2003 the TSSWCB employed a total of 51, with 16 employees working in the Temple headquarters and 35 employees in the field. There are also two vacant field positions that will be filled in the near future as we progress through the hiring process. Due to the difficulties of finding engineers to hire, two field engineer positions are contracted. The following organization chart shows the agency's current structure.



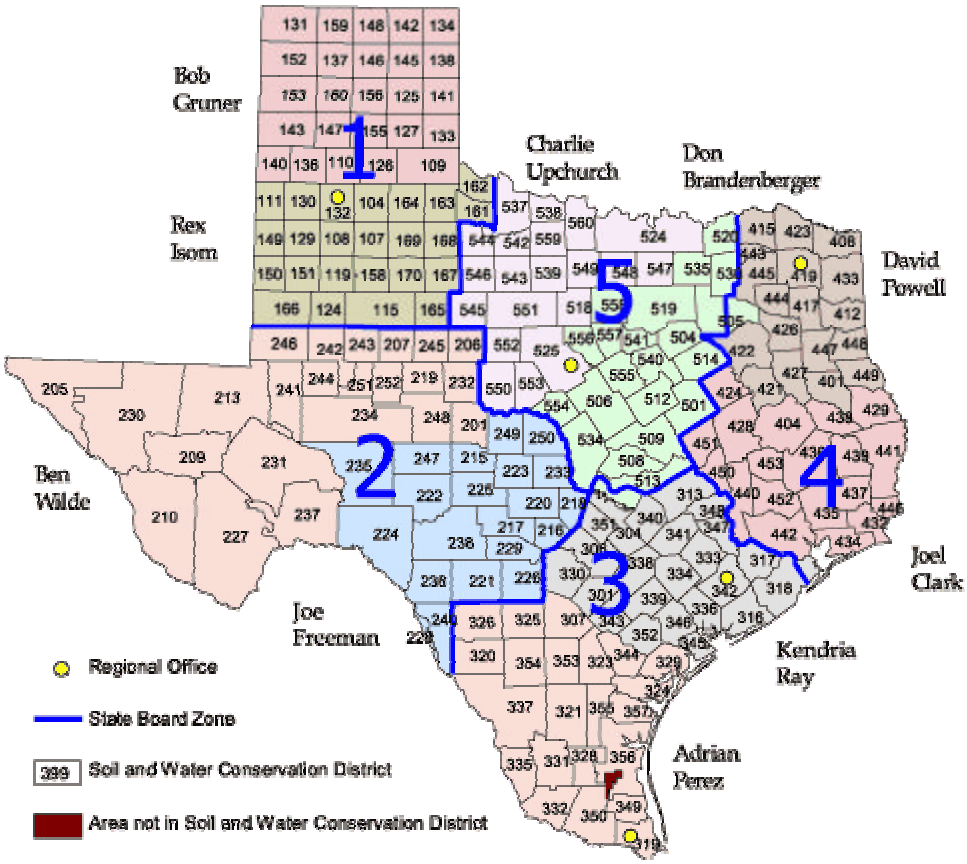
The results of restructuring the TSSWCB's organizational structure to move more resources to the field and away from headquarters has been a 71% to 29% ratio of salary for Field Staff to Headquarters Staff. Prior to restructuring, the ratio for Field Staff to Headquarters Staff was 52% to 48%.

The regional office staff provides on-site technical assistance to farmers and the field staff serves as liaisons between the TSSWCB and local districts. The field staff also provides assistance to local districts and district employees concerning operations, programs, and activities. The regional office staff coordinates with the Texas Commission on Environmental Quality (TCEQ), Texas Cooperative Extension (TCE), and the USDA's Natural Resource Conservation Service (NRCS) to provide technical assistance to landowners on conservation projects.

SOIL AND WATER CONSERVATION DISTRICTS

The TSSWCB performs many of its activities in coordination with the state's 216 local soil and water conservation districts. These local districts are political subdivisions of the state, established through local option elections of agricultural landowners. Districts generally reflect county boundaries, but may also follow river basin or watershed boundaries, depending on the desires of the local landowners.

The following soil and water conservation district map shows the current 216 local districts that cover almost the entire state. That portion of the state not in a soil and water conservation district is in Kenedy County and contains the privately owned King Ranch. The map also shows the grouping of the districts into the five State Board Districts that respectively elect a State Board member and shows the field staff that is assigned to work with each district within a specific area.



Landowners within these local districts elect the five district directors that comprise the districts governing body or board of directors. This board of directors administers the programs and activities of the district. Representatives of the districts within each region then elect the members of the State Board through a series of convention style-elections.

Districts do not have taxing authority and rely on locally generated funds from various activities and programs, federal assistance, county assistance, and state assistance from the TSSWCB. The USDA Natural Resource Conservation Service (NRCS) provides most of the federal assistance available to districts and through cooperative agreements provide technical assistance to farmers and ranchers requesting assistance from the district.

As stated, there are currently 216 local districts. However, one district is in the process of dividing and reorganizing as two new districts that will be based on single county boundaries to better serve the landowners within each county. This action was based on a petition to the State Board and an affirmative local option election of the landowners indicating their desire to have the two new districts.

ANNUAL STATE MEETING OF SOIL AND WATER CONSERVATION DISTRICT DIRECTORS

The Annual State Meeting of Soil and Water Conservation District Directors, required in §201.081, Texas Agriculture Code, was conducted in El Paso last October. There were 107 districts represented, with 206 individual district directors that registered for the meeting. The total registration was 563.

For the 2004 calendar year, the state meeting is scheduled for October 18-20 in Laredo. To help determine which cities should be contacted and evaluated for availability and feasibility to host the state meeting, the State Board is currently conducting a survey of district directors. The State Board will examine the final results of that survey following the January 30, 2004 deadline to respond.

DIRECTOR MILEAGE AND PER DIEM

Due to the reductions in staff at the headquarters office, director mileage and per diem claims are now managed directly by districts. The TSSWCB sent each district 75% of their approved allocation (grant) on October 1, 2003. The remaining 25% will be used as a pool for any expenses not covered through the initial allocation (grant). Field staff will approve each claim before payment to ensure claims are accurate and comply with state statutes and guidelines. The FY04 state appropriation for this program is $325,000.00.

DISTRICT TECHNICAL ASSISTANCE FUNDS

Rider 4 of the TSSWCB 2004-2005 Appropriation revised the allocation method for technical assistance funds. On September 1, 2003, the TSSWCB authorized the payment of 25% of each district's approved allocation (grant). The remaining balance for each district allocation will be distributed on a reimbursement basis during the fiscal year as expenditures are incurred. The FY04 state appropriation for this program is $1,036,241.00.

DISTRICT SUB-CHAPTER H FUNDS

Sub-chapter H funds are appropriated to the TSSWCB from the Agricultural Soil and Water Conservation Account No. 563. Senate Bill 1053 enacted by the 78th Legislature moved the bond that funded Account No. 563 to the Texas Water Development Board (TWDB). Account No. 563 no longer exists and future funding for Sub-chapter H grants will come from the TWDB. The TWDB has adopted rules and an application process for distributing the funds from the fund. The TSSWCB, on behalf of districts, will apply to the TWDB for funding. The FY04 state appropriation for this program is a potential maximum of $115,000.00.

DISTRICT CONSERVATION ASSISTANCE PROGRAM

District Conservation Assistance funds are appropriated to the TSSWCB from general revenue funds. Of the 216 local soil and water conservation districts, 215 have requested to receive an allocation (grant) from these funds. Local districts receive these funds as a dollar for dollar match for money that they generate locally through various activities. The local districts use this money to pay operational expenses. The FY04 state appropriation for this program is $916,364.00.

PROGRAMS & ACTIVITIES SUPPORTING THE TSSWCB

Total Maximum Daily Load (TMDL) Program

Section §303(d) of the 1972 Federal Clean Water Act (CWA) requires all states to compile a list of water bodies that do not meet their designated uses and then to develop total maximum daily loads (TMDLs) for the particular pollutant(s) that is causing the impairment. Following the development of a TMDL, a state approved implementation plan is developed prescribing the measures needed to restore the polluted water bodies.

In Texas, the responsibility to develop TMDLs is shared between two state agencies: the Texas State Soil and Water Conservation Board (TSSWCB) and the Texas Commission on Environmental Quality (TCEQ). In general, the TCEQ is the lead agency for protecting Texas' water quality. However, TCEQ shares the responsibility for managing and abating nonpoint source pollution with the TSSWCB. The TSSWCB is designated as the lead agency for *agricultural and silvicultural* nonpoint source pollution abatement while the TCEQ is the state's lead agency for *urban* nonpoint source pollution abatement and for *point source discharge permitting* through the Texas Pollutant Discharge Elimination System. As a result, any organization considering undertaking a TMDL project for a water body listed for an impairment due to agricultural or silvicultural nonpoint source pollution must coordinate efforts with the TCEQ and with the TSSWCB.

There are numerous watershed segments on the §303(d) List that involve agricultural nonpoint source (NPS) pollution and are targeted by TSSWCB Programs (i.e. CWA §319 and WQMP Programs) as funding becomes available. The TSSWCB is actively involved in the development for of TMDLs for almost 30 water bodies and the implementation of 5 TMDLs (E.V. Spence Reservoir, North Bosque River, Lake Aquilla, Lake of the Pines, and Arroyo Colorado) that have been identified as being impaired, at least in part, by agricultural activities. These TMDLs, which are primarily addressing dissolved oxygen/nutrients, bacteria, Atrazine, and salinity, are being implemented using both CWA §319 funding and WQMP Program funds. These programs are described in detail in following sections.

Clean Water Act, §319(h) Grant Program

In the 2003 Federal Grant Cycle the TSSWCB applied on May 12, 2003 for and received on September 11, 2003, a grant of $5,513,600.00 to carry out our responsibilities under the Clean Waters Act. The programs and projects to which those funds are being expended are listed below. During January 2004, EPA will start a new grant cycle. At that time the TSSWCB will submit a grant application for $5,515,000.00. The award date and the award amount will be determined at a later date by EPA.

Grantee	Amount	Time Period	Project Title
Administered by the TSSWCB	$154,231	5/12/03-3/31/06	Grant Administration
Administered by the TSSWCB	$245,109	5/12/03-3/31/06	Statewide Technical Assistance and Information Education Assistance
Upper Colorado River Authority	$19,200	5/12/03-3/31/06	The Aquatic Experience
Texas Forest Service	$367,620	5/12/03-3/31/06	Texas Silviculture BMP Effectiveness
Shelby Soil & Water Conservation District	$350,000	5/12/03-3/31/06	Sam Rayburn WQMP Implementation Supplemental
Texas Agricultural Experiment Station	$247,198	5/12/03-3/31/06	Bacteria Monitoring for Buck Creek
Texas Cooperative Extension	$98,341	5/12/03-3/31/06	Nitrate Impacts in Groundwater
Central Texas Soil & Water Conservation District and Little River – San Gabriel Soil & Water Conservation District	$424,080	5/12/03-3/31/06	Central Texas Water Quality Management Plan Implementation Assistance (Supplemental)
Texas Agricultural Experiment Station	$227,793	5/12/03-3/31/06	Technologies for Animal Waste Pollution
Navarro Soil & Water Conservation	$430,279	5/12/03-3/31/06	Navarro Water Quality Management Plan District Implementation Assistance (Supplemental)
Administered by the TSSWCB	$95,490	5/12/03-3/31/06	Santa Rosa Springs Well Plugging
Brazos River Authority	$96,081	5/12/03-3/31/06	Edge of Field Monitoring
Texas Cooperative Extension	$101,271	5/12/03-3/31/06	Reducing Atrazine Losses in Central Texas
USDA – Natural Resources Conservation Service	$158,400	5/12/03-3/31/06	Atrazine Modeling
Administered by the TSSWCB	$2,208,446	5/12/03-3/31/06	E.V. Spence Salt Cedar Project
USDA – Agricultural Research Service	$99,246	5/12/03-3/31/06	Leaf Beetle Demonstration
Brazos River Authority	$190,815	5/12/03-3/31/06	Bosque Watershed Coordinator
Total:	**$5,513,600**		

In addition to the grant received in 2003, the 319 Grant has been utilized to assist in the implementation of a number of TMDLs (i.e. North Bosque), Initiatives (i.e. Atrazine Initiative), and Programs (i.e. Poultry WQMP Program) as described in following sections.

Water Quality Management Plan (WQMP) Program

In 1993, the Texas Legislature passed Senate Bill 503 which directed the TSSWCB to implement Water Quality Management Plans (WQMPs) in Texas. The agency has implemented more than 6000 WQMPs since the inception of the program.

The WQMP Program is administered from five Regional Offices around the state. A poultry program specialist supports the WQMP Program out of a home office in East Texas. The Regional Offices are:

- Dublin Regional Office
- Hale Center Regional Office
- Harlingen Regional Office
- Mount Pleasant Regional Office
- Wharton Regional Office
- Poultry Program Office (Nacogdoches)

A WQMP is a site-specific conservation plan developed through (and approved by) SWCDs for agricultural or silvicultural lands. The plan includes appropriate land treatment practices, production practices, management measures, technologies or combinations thereof. The purpose of WQMPs is to achieve a level of pollution prevention or abatement determined by the TSSWCB, in consultation with local soil and water conservation districts, that is consistent with state water quality standards.

The TSSWCB selected requirements for a WQMP based on the criteria outlined in the *Field Office Technical Guide (FOTG)*, a publication of the United States Department of Agriculture's Natural Resources Conservation Service (NRCS).

Nutrient management must be included if nutrients are applied. If an animal feeding operation is involved (such as an unpermitted dairy), an animal waste management system will be a sub-component of the WQMP. Waste utilization will be considered when agricultural wastes are applied. These WQMPs also have subcomponents for irrigation waters, erosion control, and are flexible enough to cater to a wide range of operating systems.

Agricultural and forestry landowners may enter into these cooperative agreements with their local district to control nonpoint source pollution from their operations. While the decision to develop a plan is voluntary, landowners have many reasons to do so. These plans provide for landowners to use best management practices in their operations to protect their most precious agricultural resources by controlling erosion, conserving water, and protecting water quality. In addition, certified plans have the same legal status as Texas Commission on Environmental Quality (TCEQ) point source pollution permits, without having to go through that agency's regulatory process. Landowners may also receive financial incentives to help pay for implementing these plans.

It should be noted that the certified plans only have the same legal status as a TCEQ point source permit in certain cases such as forestry and animal feeding operations. A certified WQMP does not allow an

animal feeding operation that is required by law to operate within the confines of a water quality permit issued by the TCEQ.

Water Quality Management Plans are especially useful for animal feeding operations. Depending on their size, animal feeding operations may be regulated by TCEQ as a point source or are unregulated and eligible for the TSSWCB's voluntary program. Generally, these feeding operations are classified according to the number of animals they have, calculated as "animal units". Animal feeding operations with more than 1000 animal units must apply for a permit from TCEQ. Most animal feeding operations in Texas are not large enough to require a permit, which makes this program critical to protecting Texas' water quality.

In developing the Water Quality Management Plan, the TSSWCB, SWCDs, and the USDA Natural Resources Conservation Service (NRCS) provide technical assistance to help the landowner meet the criteria of the plan. A plan establishes practices and installations on the farm that adhere to best management practices specific for that area. The various installations that a plan calls for depend on the operation. A farm may include a combination of cropland, dairy cows, poultry, hogs or cattle.

These plans may also include erosion control measures such as terraces or grass waterways; or they may address nutrient management to help landowners avoid over-fertilizing their land, or over-applying animal waste. Although a plan will take into consideration each farm's unique components, all WQMPs generally attempt to control erosion, conserve water, and protect water quality.

Upon TSSWCB certification of a WQMP, a landowner may apply for a financial incentive that will help pay for implementing the plan. Local districts have varying rates for sharing the cost of plan implementation, however cost-share may not exceed 75% per plan, with a maximum $10,000 grant limit. Landowners receiving financial incentive have approximately three years to implement the provisions of the WQMP.

The TSSWCB allocates money to local districts for financial incentives based on whether the area has impaired water bodies as determined by TCEQ, or if the TSSWCB had previously designated it as a priority. Most of these financial incentives were appropriated from General Revenue funds. Some plans received financial incentives from federal funds. State appropriations provided to local districts in FY04 amounted to $2,171,740.00 to carry out a WQMP cost-share program in their district.

In addition to certifying WQMPs to ensure that they help abate nonpoint source pollution, the TSSWCB monitors WQMPs to ensure they are properly implemented. Each year, the TSSWCB conducts a status review on a minimum of 10% of the plans. Additional technical assistance may be offered to a landowner when a WQMP is found noncompliant. In the unlikely case that the landowner does not achieve compliance with the WQMP, the TSSWCB may decertify the plan.

During FY03, the WQMP Program was administered from the TSSWCB office in Temple. The staff reductions in the FY04 budget made it necessary for the program to be reorganized and the Regional Offices are now administered from the Harlingen Regional Office. Additionally, plan certification authority was shifted from the Temple headquarters to each regional office. This change is already expediting the certification process and reducing postage expenditures, while maintaining the integrity and standards of the program.

The last adjustment involved the complaint process, which was also administered out of the headquarters office during FY03. Headquarters office no longer has an individual to do complaint inspections and all complaints are investigated from the appropriate Regional Office.

For FY03, the WQMP met or exceeded its major performance measures. One example is the goal for the number of certified WQMP was exceeded by 12%. CWA §319 projects throughout the state helped in the process to exceed this particular measure. All five Regional Offices conducted their required plan evaluations effective through the program cycle of FY01. The evaluation period for the next round of cost-share allocations will include the fiscal years 97-01.

Considering the changes that have occurred for FY04, the WQMP Program is operating exceptionally well. For the first quarter of FY04, all performance measure goals were met and all challenges have been addressed in a reasonable and proficient manner.

Poultry Water Quality Management Plan (WQMP) Initiative

In 1994, the Texas State Soil and Water Conservation Board (TSSWCB) began assisting poultry operations with the establishment of the Northeast Texas - Senate Bill 503 Cost-share Area. Since 1994, over $300,000 of WQMP Program funding has been provided annually to six soil and water conservation districts (SWCDs) in Northeast Texas to address animal feeding operations (AFOs).

In 1995, the TSSWCB initiated three Clean Water Act, §319(h) projects to demonstrate composting as a means for dead bird disposal, buffer strips, and proper land application of poultry litter. In 1996, the TSSWCB expanded its efforts by initiating a composting and marketing project. This effort to promote the installation of composters and other means of mortality management on poultry farms resulted in accelerated WQMP development.

In 1997, the Texas Legislature passed Senate Bill 1910, which required all poultry farms to have a TCEQ-approved method of dead bird disposal. The law took effect in March 1998. However, the rules were not adopted and did not take effect until fall 1999. It was during this time that requests for poultry-WQMPs significantly increased due to pursuit of cost-share for mandated mortality management. This activity intensified the TSSWCB's poultry initiative.

In response to water quality concerns and the initiation of TMDL development in the Big Cypress/Lake O' the Pines watershed in 1999, the TSSWCB began using §319 funds for cost-share in the area in addition to the Senate Bill 503 cost-share funds already directed to the watershed. Due to rising concerns in nearby watersheds, the TSSWCB also included the Sam Rayburn and Toledo Bend Reservoir watersheds in its initiative in 1999. The TSSWCB expanded the poultry initiative again in 2001 to the Gonzales area.

All together, the TSSWCB has focused $5.3 million in §319 funding and over $3 million in state funding to assist poultry operations with abating NPS pollution in Texas. Nine of the sixteen §319-funded projects are ongoing. Another $2.9 million in USDA-NRCS Environmental Quality Incentives Program (EQIP) funding was obligated to assist poultry producers in Northeast Texas and Gonzales County from 2000 to 2003.

The 77th Legislature, in 2001, passed Senate Bill 1339, which requires all poultry facilities in Texas to operate in accordance with a WQMP certified by the TSSWCB. The review and certification process assures the plan includes appropriate practices, management measures and schedules of implementation.

This law provides a staggered-schedule of deadlines by which each producer, depending on their initial date of operation, must have requested the development of a WQMP from their soil and water conservation district. Any poultry facility constructed after January 1, 2002 is required to have a WQMP prior to the receipt of any birds.

Since the effective date of the new law, the TSSWCB has identified 1454 total poultry farms, of which 1232 (85%) currently operate under a certified WQMP. The TSSWCB estimates that 21 farms need to request a WQMP before January 2005 and 83 farms before January 2008. The other estimated 118 farms have already requested a plan and those plans are in various stages of development. However, there is an ongoing challenge of identifying new poultry farms continually being constructed and put into production and locating other poultry farms not yet identified.

Producers who fail to submit an application for a WQMP before the appropriate submission date for their specific facility are subject to enforcement actions by the Texas Commission on Environmental Quality. In fiscal year 2003, WQMPs were developed for 289 poultry farms. In fiscal year 2003, status reviews were conducted on 182 poultry operations in Texas, which is approximately 15% of poultry farms with a WQMP.

Since 2001, seven soil and water conservation district (SWCD) technicians have been employed under Federal Clean Water Act §319 contracts to develop WQMPs in poultry producing areas. Those contracts will expire in 2004. An eighth §319 district technician was hired in 2003 in the Shelby SWCD to conduct WQMP status reviews and that contract will expire in 2005. As a result, beginning in FY 2005, there will be a substantial reduction of available staff for developing new plans, conducting status reviews, and revising plans as needed.

Beginning in fiscal year 2004, a TSSWCB Poultry Program Specialist has been assigned to a field location in Nacogdoches County to assist with all aspects of the Poultry WQMP Program. Over 500 (35%) of the estimated 1454 poultry farms in Texas are located in Nacogdoches and Shelby counties. Approximately 130 (25%) of the existing farms in those two counties still need a WQMP developed. The specialist will also assist other soil and water conservation districts with poultry WQMP development as needed.

State appropriated grants in FY04 were made to the Hopkins-Rains SWCD and the Nacogdoches SWCD in East Texas for technical assistance in the Poultry WQMP Program for $250,000.00. State appropriated grants made to entities other than local districts in FY04 were two grants made to the USDA-Agricultural Service (ARS). The first grant was for $114,989.00 to conduct an investigation of nutrient loss mechanisms from land-applied poultry litter. The second grant was for $80,000.00 to conduct an investigation of additional tasks involving nutrient loss mechanisms from land-applied poultry litter.

North Bosque River Watershed Initiative

In 1998 the North Bosque River (Segments 1226 and 1255) was included in the Texas CWA §303(d) List of impaired waters under narrative water quality standards related to nutrients and aquatic plant growth.

In February 2001, the TCEQ adopted *Two Total Maximum Daily Loads for Phosphorus in the North Bosque River* for segments 1226 and 1255.

The TMDLs concluded that:

- Use of the two segments was "impaired" by high levels of nutrients.
- The nutrient of principal concern was soluble reactive phosphorus (SRP)
- Reduction of SRP of approximately 50% would reduce the potential for problematic algal growth in the river.
- The major controllable sources of nutrients in the North Bosque River basin were municipal wastewater treatment plants (WWTPs) and NPS pollution from dairy waste application fields (WAFs).

In December 2002, both the TCEQ and the TSSWCB adopted *An Implementation Plan for Soluble Reactive Phosphorus in the North Bosque River Watershed*. The four basic elements of phosphorus control identified in the plan were:

- Phosphorus application rates in WAFs.
- Reduced phosphorus diet for dairy cows to reduce the phosphorus content of dairy wastes.
- Removing approximately half of the dairy-generated manure from the North Bosque River watershed for use or disposal outside of the watershed.
- Effluent limits on phosphorus for municipal wastewater treatment plants.

Before and since the adoption of the Implementation Plan, the TSSWCB TMDL Program has been actively working on numerous projects and programs designed to assist the agricultural community in meeting its recommendations and requirements. All of the efforts explained in the following discussions are in support of the TMDL and the Implementation Plan.

State appropriated grants to entities other than local districts for projects in the North Bosque River were made to one project. That project was for $15,000.00 to Keith Broumley as financial assistance to conduct a Comprehensive Nutrient Management Plan to support the North Bosque River Anaerobic Digester Demonstration Project.

Dairy Manure Export Support (DMES) Program

The TSSWCB initiated the Dairy Manure Export Support (DMES) program in an effort to bring an innovative solution to the problem of elevated phosphorus levels in the North Bosque and Leon River Watersheds. The DMES program offers financial incentives to commercial manure haulers to support the transport of raw manure from dairy farms in the North Bosque and Leon River Watersheds to commercial composting operations. The raw manure is then improved through a composting process so it may be put to beneficial use. Entities such as the Texas Department of Transportation and municipalities, as well as agricultural producers and the general public are some of the target purchasers of the composted product. The TCEQ, TSSWCB's partner in the overall regional program, provides rebates to these target purchasers to facilitate the development of a sustainable market. The export of this surplus manure (and the nutrients contained in the manure) will help address concerns regarding potential NPS water quality impacts associated with traditional on-farm land application of manure in the region.

Overall DMES program management is controlled through the TSSWCB. The TSSWCB has contracted everyday activities to the Texas Institute for Applied Environmental Research (TIAER) at Tarleton State University. In April 2001, TIAER subcontracted many aspects of the program to the Foundation for Organic Resources Management (FORM), which was replaced by imanage, LLC in July 2003. Through FORM, and later imanage, LLC, the DMES program has been managed at the local level through a DMES program office located in Stephenville, Texas. The TSSWCB has contracted TIAER to manage the program through August 31, 2004.

Participation requirements for dairies include being located in the North Bosque and/or Leon River Watersheds. Dairies must have (or have applied for) a TSSWCB–certified Water Quality Management Plan or a TCEQ water quality permit and an approved nutrient utilization plan. Each composting facility must be compliant with all state regulations regarding compost facilities and be approved for participation in TCEQ's Composted Manure Incentive Project (CMIP). Manure haulers must attend a workshop convened by the TSSWCB's contractor and obtain a vendor number from the Texas State Comptroller and authorize direct deposit.

Individual hauling jobs are coordinated through manure haulers that make arrangements with dairies and commercial composting operations. A manure hauler completes a job notification form, which is then submitted to the DMES office for approval. Once approval is received, the manure hauler performs the work and submits an invoice to the DMES office, which is signed by a representative of the dairy, accompanied by load tickets signed by a representative of the composting facility, and a scale ticket for each load. The DMES office prepares semi-monthly reimbursement request summaries, has them approved by TIAER, and then submits them to the TSSWCB for payment. Because the TSSWCB is using Clean Water Act §319(h) funding from the U.S. Environmental Protection Agency (EPA), the TSSWCB must then request that the funds be released from EPA to the TSSWCB. The TSSWCB then issues reimbursements via direct deposit to the manure haulers.

The initial target amount of manure to be exported from dairy farms participating in the program was 300,000 tons during a 36-month program period from October 2000 through October 2003. Hauling of dairy manure under the DMES program has proceeded at a much faster rate than originally anticipated. In fact, as of October 31, 2003, over 685,500 tons of manure, or more than double the target amount, has been hauled under this program. The TSSWCB anticipates the DMES Program will continue through August 2004 and possibly beyond.

Comprehensive Nutrient Management Plan (CNMP) Program

The TSSWCB Comprehensive Nutrient Management Planning (CNMP) Program was developed in response to a control measure recommended in the *Implementation Plan for the North Bosque River Total Maximum Daily Load for Soluble Reactive Phosphorus*. The implementation plan recommended that dairy producers in the watershed voluntarily develop and implement a Comprehensive Nutrient Management Plan (CNMP). This program is confined to the North Bosque River Watershed by rule.

A CNMP is a resource management plan containing a grouping of conservation practices and management activities which, when combined into a conservation system, will help ensure that both agricultural production goals and natural resource concerns dealing with nutrient and organic by-products and their adverse impacts on water quality are achieved. A CNMP incorporates practices to utilize animal manure and organic by-products as a beneficial resource. The TSSWCB selected requirements for a CNMP based on the TCEQ rules and regulations required for permitted and unpermitted animal feeding

operations and criteria outlined in the *Field Office Technical Guide (FOTG)*, a publication of the United States Department of Agriculture's Natural Resources Conservation Service (NRCS). The FOTG represents the best available technology and is already tailored to meet the needs of soil and water conservation districts all over the nation. To be certified by the TSSWCB, the local SWCD, the producer, and the local NRCS Field Office must approve a CNMP. However, no state or federal regulations currently require a facility to develop a CNMP.

The TSSWCB is currently working with the owner of a dairy operation that was selected as the site of an anaerobic manure digester demonstration project in the North Bosque River Watershed. The overall project, managed by a group of entities including the Brazos River Authority, the TECQ, and the Texas Farm Bureau, is designed to reduce the amount of phosphorus present in the dairy's wastewater. The TSSWCB's contribution to the project is to provide the dairy with financial assistance from §319 grant funds toward the development of a CNMP so that the operation can appropriately utilize the reduced phosphorus wastewater, protect the natural resources on location, and be consistent with the recommendations of the Implementation Plan. The CNMP is currently under development by a third-party technical service provider with the assistance of the TSSWCB and NRCS.

Water Quality Management Plan (WQMP) Program Implementation in the North Bosque Watershed

The regional offices are maintained around the state for the purpose of providing technical assistance to rural landowners interested in conserving natural resources and protecting water quality. The Dublin Regional Office is located within the North Bosque River Watershed, and has been providing service to the area since 1993. Since September 1, 2002 (three months prior to the adoption of the TMDL Implementation Plan), the TSSWCB has certified 40 WQMPs covering more than 8,500 acres in the watershed. As stated in the TMDL Implementation Plan, the TSSWCB is interested in working with SWCDs to get as many acres of land as possible under the scope of a nutrient management plan (nutrient management plans are required components of WQMPs that cover land receiving either commercial fertilizer or animal waste). The previously mentioned 40 WQMPs include more than 4,900 acres now within the scope of a nutrient management plan. They also include more than 2,400 acres that are planned to be covered by improved vegetation. Vegetation helps to prevent NPS pollution by absorbing nutrients and preventing erosion that can carry nutrients with sediment into the North Bosque River stream system.

Clean Water Act, §319(h) Grant Projects in the North Bosque Watershed

Clean Water Act §319(h) Grant Program funding has been used extensively to assist in the development and implementation of the North Bosque River TMDL. Currently, seven CWA §319(h) are actively assisting the implementation of the North Bosque River TMDL. These are briefly described below.

Technical and Financial Assistance to Dairy Producers and Landowners of the North Bosque River Watershed Within the Cross Timbers and Upper Leon SWCDs

This project provides technical and financial assistance to landowners toward the development and implementation of certified WQMPs and CNMPs for any agricultural operations that land-apply animal waste. The project employs three SWCD technicians for developing WQMPs for unpermitted animal feeding operations (AFOs) or non-AFO farms, and for reviewing the technical completeness of CNMPs developed by third-party technical service providers on permitted dairy CAFOs.

The project also includes cost-share funding. The cost-share, applied through the TSSWCB rules and requirements, encourages producers to properly implement the best management practices (BMPs) included in the WQMPs and CNMPs. The project also includes funding for water quality monitoring, carried out by TIAER, at the micro-watershed level. This methodical monitoring scheme is being performed to determine the nutrient reductions that are achieved through the implementation of BMPs within the watershed.

Funding is also provided for the SWCDs and TIAER to conduct "micro watershed producer council" meetings with the owners of the WQMPs and CNMPs once a sufficient number of the plans have been implemented. Topics such as the overall TMDL progress, the latest water quality monitoring results, and how they relate to the impact of WQMP and CNMP implementation are intended to be presented to the councils.

Development of a Bacterial Source Tracking Library and
Assessment of Bacterial Sources Impacting Lakes Waco and Belton

This project is a component of a larger statewide bacterial source-tracking (BST) program. This project includes Parsons Engineering Science, Inc., Texas Farm Bureau, Brazos River Authority, City of Waco, TSSWCB, and the Environmental Protection Agency as project partners.

Protection of our water resources is one of the most significant environmental challenges of the new millennium. Nonpoint sources (NPS) of pollution, especially from agricultural activities, can greatly impact water quality. One key component in effectively implementing a NPS pollution management program is the identification and assessment of sources of bacterial contamination, especially for impaired waterbodies on the Texas Clean Water Act §303(d) list. Proper evaluation of these sources is needed to develop microbial total maximum daily loads (TMDLs) and appropriate best management practices (BMPs). This information may also be useful to properly assess risk in contact recreation, as many waterborne pathogens causing human illness do not colonize nonhuman hosts.

Fecal coliform bacteria have extensively been used as an indicator of fecal pollution and the potential presence of other pathogenic microorganisms in water. It has been established that the fecal coliform bacterium *Escherichia coli* (*E. coli*) is more closely associated with fecal pollution than other fecal coliform bacteria, which may normally reside and multiply in the environment.

E. coli is a common inhabitant of animal and human intestines and recent studies have shown that isolates from humans and various host animals (e.g. cattle, chickens, and pigs) may differ genetically and phenotypically. Use of genetic and biochemical tests may allow the original host animal to be identified, referred to as bacterial source tracking (BST). Molecular tools appear to hold the greatest promise for BST, providing the most conclusive characterization and level of discrimination for isolates. Of the molecular tools available, ribosomal ribonucleic acid genetic fingerprinting (ribotyping) and pulsed-field gel electrophoresis (PFGE) are emerging as versatile and feasible BST techniques. A phenotypic characterization method, antibiotic resistance analysis, also has the potential to identify the human or animal origin of isolates. However, reference "libraries" of bacterial genetic fingerprints and antibiotic resistance profiles are needed to correctly identify the source of bacteria isolated from environmental water samples.

There are projects in progress at Lake Waco and Lake Belton, the San Antonio River and tributaries, Oyster Creek and a project planned for the greater Houston area. These projects have two general

objectives: (1) to assess the water quality with regard to the relative contributions of fecal bacteria from bovine, human, and other animal contributions to the water bodies and (2) to develop local libraries, genetic and biochemical that can be used in determining the animal or human nonpoint fecal source contamination of surface water.

Field Validation of the Texas Phosphorus Index

This project is intended to determine the effects of selected soil properties in the North Bosque and Leon River Watersheds for measuring and predicting phosphorus runoff, as well as comparing and correlating different soil test and soil solution soluble phosphorus extracts to runoff phosphorus. The project, carried out by Texas Cooperative Extension, will also attempt to validate and/or modify the Texas Phosphorus Index as a predictive tool for classification of field sites relative to phosphorus loss potential. The information attained from these field studies will help validate and improve the Texas Phosphorus Index. With this information and additional studies similar to this across the state, quantitative assessments to predict the amount of phosphorus in runoff utilizing the Texas Phosphorus Index can be estimated. The runoff analyses will help determine the form of phosphorus, and whether it is mainly solution soluble or suspended. This will enable identification of appropriate best management practices to reduce the amount of phosphorus leaving fields, thus decreasing the amount of phosphorus reaching surface water resources. The Texas Phosphorus Index is an integral part of effective nutrient management planning.

Improving Water Quality by Developing, Implementing, and Field Testing Innovative Methods

This project, conducted by Texas Water Resources Institute, provides funding for the testing of new technologies designed for reducing water pollution associated with animal production systems, principally dairies. The focus is restricted to reducing phosphorus in dairy waste streams. Four technologies have already been selected, while the overall project is designed to accommodate two additional technologies yet to be determined. The four selected technologies include an electrocoagulation system, a polymer enhanced solids separation system, an aeration with microbubblers system, and a geotextile solids separation system. These technologies are tested and utilized in municipal waste treatment systems, dredging and sediment recovery from streams, and the oil and gas industry but they have not been adequately tested or demonstrated for treating animal waste. This is especially true for testing these technologies for the reduction of phosphorous from land applied liquid dairy manure in the Bosque River Watershed.

Edge-of-Field Monitoring of a Wastewater/Manure Management System Demonstration

This project will monitor and evaluate the phosphorus reduction capabilities of a state-of-the-art methane digester system installed on a dairy facility in the North Bosque River Watershed operating in conjunction with a TSSWCB-certified Comprehensive Nutrient Management Plan (CNMP). A multi-agency group including the Brazos River Authority, Texas Farm Bureau, and TCEQ is carrying out the overall methane digester project. Edge-of-field monitoring, funded by the TSSWCB and conducted by the Texas Institute for Applied Environmental Research, was initiated to determine the level of phosphorus reduction associated with the wastewater that has undergone treatment using methane digester technology and applied in accordance with the dairy's CNMP. Monitoring will occur on the liquid application fields used by the dairy operator to determine nonpoint source pollution (NPS) reductions.

Establishment of a Watershed Coordinator for the North Bosque River Watershed

The objectives of this project include identifying all pollution prevention projects and measures that are currently underway in the watershed, tracking the progress of these projects and measures, tracking rules and regulations that affect operations of entities in the watershed, reviewing water quality data for trend identification, providing opportunities for efficient and effective use of resources, and communicating through regularly scheduled stakeholder group meetings. Another objective of this project is to identify areas within the watershed that may not have received the attention necessary to reduce potentially detrimental impacts to water quality. The TSSWCB has contracted the Brazos River Authority to provide overall coordination of the project.

Athletic Field Topdressing as a Commercial Market for Compost from Dairy Manure

Composting of dairy manure and exporting of the compost out of the watershed have been advanced as a solution to the problem of the impaired water quality in the North Bosque River Watershed. The composting facilities have been established and the infrastructure to move manure from dairies to these facilities is in place. A high-volume market is needed that can afford the production and transportation costs of the compost. This project, carried out by the Leon-Bosque Resource Conservation and Development Council, seeks to develop that market by demonstrating the value of compost as a component to a premium blend of compost and sand.

Texas Atrazine Initiative

Background

Atrazine is a pre-emergent herbicide primarily used to control broadleaf and grassy weeds in corn and sorghum. Since it went on the market in 1958, it has become the most widely used herbicide in the United States.

It is classified as a restricted use herbicide due to its potential for groundwater contamination. Inconsistent with its restricted use designation, it is commonly found in W*eed and Feed* and other home and garden products, making it not only an agricultural issue, but an urban issue as well.

Atrazine, a chlorinated triazine herbicide, acts as a photosynthesis inhibitor. It is nontoxic to humans, having about the same toxicity as table salt. It has no adverse reproductive effects. It's not teratogenic or mutagenic. Only low levels of bioaccumulation may be expected in fish organs. It is nontoxic to birds and only slightly toxic to aquatic life.

Atrazine is, however, a possible human carcinogen (Class C). Due to this, a Maximum Contaminant Level (MCL) of 3 μg/L (micro-grams per liter) has been established for finished drinking water. A micro-gram would equate to 0.000,001 grams per liter of water.

Atrazine is persistent in the environment, having a field half-life of 60 days. It is moderately soluble in water and is not removed from drinking water by conventional water treatment methods. Activated carbon, ozonation, cation exchange, and UV treatment methods must be used to remove it from drinking water.

Because of its persistence, solubility, and widespread use, Atrazine is commonly found in surface water. A 1993-95 US Geological Survey (USGS) study of pesticides in urban and agricultural streams in the Trinity River Basin found Atrazine in 100% of samples from both sources. This suggests that Atrazine is both an agricultural and urban problem. The concentrations in the agricultural streams were, however, greater than the concentrations in the urban streams.

Development of the Texas Approach

In Texas, testing of Atrazine in drinking water began in 1993. However, the method used only had a detection limit of 3 μg/L, and few detections were observed. In 1996, the state began using EPA (testing) Method 525.2, which has a much lower detection limit 0.065μg/L. Once the state began using this new (testing) method, numerous detections began appearing around the state in both surface and groundwater supplies. Between 1996 and 1999, Atrazine was detected in 69 water supplies around the state. In addition to drinking water monitoring, some raw water monitoring for Atrazine has been performed, but it has been infrequent and project specific.

In 1995, due to a detection of 9.6 μg/L in Marlin City Lake, the Marlin City Manager contacted the TCEQ-Source Water Assessment and Protection (SWAP) team for assistance. The City of Marlin and TCEQ-SWAP team then approached EPA for federal assistance. In 1996, Marlin City Lake was designated an EPA Region 6 Pilot Source Water Protection Program project.

To deal with the growing number of Atrazine detections around the state, TCEQ-SWAP formed an "Atrazine Steering Committee" in 1997 (later, the committee was renamed the "Surface Water Protection Committee). Committee membership consisted of the TSSWCB, the TDA, Texas A&M University, Novartis, the USDA- NRCS, the USDA-Agricultural Research Service (ARS), the Texas Farm Bureau, the Brazos River Authority, and municipal representatives. The committee's goal was to develop a strategy to address the numerous detections of Atrazine in drinking water in a proactive manner through BMP implementation and public education.

In 1998, nine reservoirs were listed as impacted by Atrazine on the §303(d) List. One of these, Aquilla Reservoir was listed as impaired by Atrazine. The running annual average at the Aquilla Water Supply District's treatment plant for the second quarter of 1997 through the first quarter of 1998 was 4.0 μg/L, violating the drinking water standard (3 μg/L) and triggering the listing of Aquilla Reservoir as an impaired water of the state. The other eight reservoirs, Lake Bardwell, Joe Pool Lake, Marlin City Lake, Lake Lavon, Lake Tawakoni, Richland Chambers Lake, Lake Waxahachie, and Big Creek Lake, were listed as threatened by Atrazine.

Following the listing of these reservoirs on the §303(d) List, the state began developing and implementing an initiative to remediate the Atrazine threats and impairments consisting of:

- Performing a standard TMDL in Aquilla Reservoir
- Building on the Source Water Protection Program in Marlin City Lake
- Performing targeted monitoring and implementing BMPs in the 7 threatened lakes

Implementation of the Atrazine Initiative

The Aquilla TMDL was initiated in November 1998. It was a cooperative effort among the Texas Agricultural Experiment Station (TAES), Texas Cooperative Extension (TCE), Texas Department of Agriculture, Texas A&M University, TCEQ, TSSWCB, NRCS, Novartis, and local stakeholders. Over

$500,000 was provided for the Aquilla and Marlin projects through PPG funds, §§319(h), 604(b), Source Water Protection, TCEQ GR, and in-kind contributions. Stakeholder committees were formed for the Marlin and Aquilla projects. Training for pesticide applicators, demonstration of BMPs, and TEX*A*SYST was provided by the TAES in cooperation with the TCE. The Texas Agricultural Experiment Station conducted monitoring in the Aquilla and Marlin Watersheds. SWAT modeling of the watershed was completed as an in-kind contribution effort of NRCS, TDA, and TCEQ. Economic analyses of the implementation of BMPs on farms in both watersheds were also completed by the TAES.

The TMDL for Atrazine in Aquilla Reservoir was adopted by the TSSWCB and TCEQ in March 2001, and was revised in June 2002 in response to comments from the Environmental Protection Agency (EPA). The implementation plan was approved by the TSSWCB and TCEQ in January 2002. Region 6 of the EPA approved the TMDL on October 30, 2002.

The TMDL stated that a load reduction of approximately 25% would result in attainment of the water quality standards.

The environmental target set for measuring the success of the TMDL implementation plan is a running annual average concentration of Atrazine *in the reservoir* that does not exceed 3.0 μg/L for two consecutive years.

The TCEQ and the TSSWCB had the leadership roles for implementing the project, as well as for developing the TMDL. The key groups involved in implementing the plan at the local watershed level were agricultural producers and city governments. Regionally, the key partners were Aquilla Water Supply District, the Woodrow-Osceola Water Supply Corporation, the Hill County Appraisal District, and the Hill County-Blackland Soil and Water Conservation District. The Texas Cooperative Extension (TCE) and the Texas Department of Agriculture (TDA) also implemented aspects of the project. The U.S. Army Corps of Engineers, the federal agency that owns and operates the lake, also cooperated.

Since the source of the Atrazine was known, some activities were initiated before the TMDL and its implementation plan were complete. In 1998, the NRCS established the Aquilla EQIP Priority Area. From 1998-2003, the NRCS obligated over $2 million to implement BMPs in the Aquilla Watershed. Along with the EQIP funding, the TSSWCB initiated a §319 project in 1999 to provide cost-share and technical assistance through the Hill County-Blackland SWCD to encourage the implementation of BMPs in the Aquilla Watershed to reduce sediment and pesticide runoff from corn and sorghum farms.

In 1999, Aquilla area farmers formed a Producers Atrazine Action Committee. Meetings featured speakers on water quality topics and training on pesticide application. The Producers Committee developed a list of BMPs recommended for use in the watershed, and composed a questionnaire to document adoption of BMPs over time. In addition, the committee met with pesticide dealers to increase dealers' awareness of the problem and to gain their assistance. The practice to incorporate herbicides into the soil upon application was already adopted by about 33% of area producers at the end of the first year, and reached nearly 100% by the third year of the project.

In the seven threatened lakes, targeted monthly monitoring was conducted near water supply intakes to verify the level of impairment and provide baseline data for future actions. Texas A&M University conducted the analysis. Water quality sampling conducted by the TCEQ was used to measure the effectiveness of the practices. In addition, Syngenta, a private corporation that markets Atrazine, continued its voluntary pesticide monitoring program with the area's public water suppliers.

Partners in the program include the TSSWCB, the TCEQ, the TDA, the TPWD, the Texas Agricultural Experiment Station (TAES), the TCE, and the federal Natural Resources Conservation Service (NRCS). Several other agencies and interested parties were involved, including the EPA, the Brazos River Authority, the Sabine River Authority, the Aquilla Water Supply District, and Syngenta (formerly Novartis), a private corporation.

Monitoring was completed in August 2003, with the exception of Bardwell and Lake Waxahachie. The City of Waxahachie continues to sample these lakes to obtain the needed 36 monthly samples.

Technical and financial assistance was provided to corn and sorghum farmers to implement BMPs in the seven lakes watersheds through 12 TSSWCB §319 projects funded by EPA, over $4.1 million in cost share and TA was provided to farmers through SWCDs. Demonstrations, monitoring, and modeling were also conducted through TSSWCB 319 projects to support and evaluate the implementation of BMPs in the seven threatened lakes. Through the TSSWCB 319 program, almost $4.6 million has been obligated to address the Atrazine issues in the seven threatened lakes.

In 2000, the Little River was listed as threatened by Atrazine. In response to this listing, the TSSWCB initiated two 319 projects in 2002 to provide technical and financial assistance to the area to address this threat. These efforts were continued in 2003 with the provision of additional funding. Over $1.1 million in 319 funding has been provided to encourage BMP implementation.

Atrazine Initiative Results – A Success Story

As a result of the Atrazine Initiative, Atrazine concentrations in Aquilla Reservoir have been reduced to safe levels. Between 1998 and 2003, Atrazine concentrations in Aquilla Reservoir have been reduced by approximately 60%, to amounts lower than those required for treated drinking water. There have also been no Atrazine concentrations higher than the allowable amount at the Aquilla Water Supply District's drinking water treatment plant. Monitoring will be continued on a quarterly schedule to ensure that Atrazine concentrations remain at a safe level.

Monitoring by TCEQ indicates that Atrazine concentrations in five of the seven lakes have been reduced to levels that warrant their reclassification from threatened. Those lakes are now attaining their uses as a source for treated drinking water.

The other two lakes, Bardwell and Waxahachie Reservoirs, are still being monitored. However, trends in those two reservoirs indicate that they, too, will no longer be classified by the TCEQ as threatened within the next six months.

Coastal Management Program

Background

The Texas Coastal Management Program (CMP) was created to coordinate state, local, and federal programs for the management of Texas coastal resources. The program brings in federal Coastal Zone Management Act (CZMA) funds to Texas state and local entities to implement projects and program activities for a wide variety of purposes. The Coastal Coordination Council (CCC) administers the CMP and is chaired by the Commissioner of the GLO. It comprises the chair or appointed representatives from

the TPWD, the TCEQ, the TWDB, TxDOT, a member of the Texas State Soil and Water Conservation Board, a member of the RRC, the director of the Texas A&M University Sea Grant Program and four gubernatorial appointees. These members are selected to provide fair representation for all aspects concerning coastal issues.

The Council is charged with adopting uniform goals and policies to guide decision-making by all entities regulating or managing natural resource use within the Texas coastal area. The Council reviews significant actions taken or authorized by state agencies and subdivisions that may adversely affect coastal natural resources to determine their consistency with the CMP goals and policies. In addition, the Council oversees the CMP Grants Program and the Small Business and Individual Permitting Assistance Program.

The Coastal Zone Act Reauthorization Amendments (CZARA), Section 6217, requires each state with an approved coastal zone management program to develop a federally approvable program to control coastal nonpoint source pollution. The Texas CCC appointed a Coastal Nonpoint Source Pollution Control Program workgroup to develop this document. The National Oceanic and Atmospheric Administration and the U.S. Environmental Protection Agency jointly administer the program. In Texas, two agencies hold primary responsibility for the program's development and implementation: the Texas Commission on Environmental Quality and the TSSWCB.

Section 6217 calls for implementation of management measures (§6217(g) measures or (g) measures) that will control significant nonpoint sources of pollution to coastal waters. Six source categories are addressed by these measures: agriculture, forestry, urban and developing areas, marinas, wetland/riparian areas, and hydro modification. States can use voluntary approaches combined with existing state authorities to achieve implementation of management measures. However, if the voluntary mechanisms are not effective, states must have backup enforcement authorities in place to ensure that management measures are implemented.

Texas requested exclusion from the program for silviculture, rangeland, and dry land rowcrop agriculture from the northern boundary of the Coastal Bend Bays and Estuaries Program Area southward to the northern boundary of the Arroyo Colorado Watershed. The silviculture and rangeland exclusions were not allowed.

Texas submitted the Texas Coastal Nonpoint Source Pollution Control Program to EPA and NOAA in December 1998. In October 2000, Texas submitted the Texas Coastal NPS Control Program 15-year Program Strategy and FY 2001-2005 Implementation Plan.

Final findings were issued by NOAA/EPA in July 2003, which contained conditional approval of the program. The agricultural and silvicultural portions of the program were approved without conditions. In these findings, the dry land rowcrop exclusion was denied. Texas is collecting additional information to support the dryland rowcrop exclusion and will provide this to NOAA/EPA for further consideration.

Current Status

The TSSWCB is responsible for implementing the agricultural and silvicultural management measures of the program. The main mechanism we have for this is the State's cost-share program for implementing Water Quality Management Plans on farms and ranches through local soil and water conservation districts

(SWCD). For over five years, more than $300,000 of state funds have been spent annually in the coastal zone to provide cost-share to implement approximately 80 Water Quality Management Plans.

In addition to state funding, Texas receives §6217 funding from NOAA for implementing the Coastal Nonpoint Source Pollution Control Program. For the past several years, SWCDs in the Coastal Management Zone have received grants from NOAA's §6217 Implementation Funds to install agricultural management measures through the TSSWCB Water Quality Management Plan program. This has been very effective in expanding Texas' effort in carrying out the agricultural portion of its coastal nonpoint source program.

NOAA recently (November 2003) issued its draft guidance for §6217 grants for cycle 9 (FY04). With the new guidance, SWCDs will no longer be able to use §6217 funds for cost-share to implement Best Management Practices (BMP) on private property. Even demonstration projects cannot be on private land. Project proposals have been received from nine districts for cycle 9 of the grant program. This guidance will significantly reduce SWCDs ability to obtain any funding from the Coastal Program for implementing the agricultural management measures.

The TSSWCB and the GLO both wrote letters to NOAA to express concerns to this change in the use of the §6217 Implementation Funds. At the CCC meeting on December 11, 2003, the Council voted to write a letter to NOAA expressing similar concerns about no longer allowing the funds to be used to implement management measures on private land. They also asked Commissioner Patterson to call NOAA at the policy level to discuss Texas' concerns.

In the meantime, our Water Quality Management Plan program in the coastal management zone continues.

Implementation of the silvicultural management measures in the coastal zone is through a CWA §319 grant from the TSSWCB to the Texas Forest Service.

Information Technology

Construction of Wireless Local Area Networks at Regional Offices

In December 2002 and January 2003, the Network Specialist constructed wireless networks at regional offices in Dublin, Mount Pleasant, Harlingen, Wharton, Hale Center and Fredericksburg. This project brought file and print sharing capabilities to offices that previously did not have these capabilities, allowing for much more efficient sharing of data and office resources. These networks also provide convenient network access to visiting TSSWCB employees equipped with wireless laptop PCs.

Construction of Agency Wide Area Network

During the spring and summer of 2003, the Network Specialist, in coordination with the Texas Department of Information Resources (DIR), developed and installed a Linux-based routing network to deliver Internet connectivity to the headquarters and regional offices. This project brought full time, broadband connectivity to the regional offices for the first time. According to DIR, the use of Linux as the foundation for routing services is unique among Texas agencies and universities and is currently being investigated by DIR for possible use at other agencies because of its flexibility and cost-effectiveness. By building its own Linux routers, the TSSWCB saved over $10,000, not including annual service fees,

compared to a bid for the same job from SBC using Cisco routers.

Email Virus Scanning

In June and July of 2003, the Network Specialist installed and configured the agency's first email virus scanner. This scanner checks each incoming and outgoing email for malicious code. Since its deployment in July 2003, several hundred emails with malicious code have been safely quarantined by the system. This project was completed using open source software components resulting in no cost to the agency for software purchases, licensing, or support.

Virtual Private Network

During August and September of 2003 the Network Specialist designed and installed a virtual private network server at the headquarters office. This allows remote staff members at regional offices or other locations to securely login to the HQ network resources via encrypted tunnels through dial-up or broadband connections. This technology was used in December 2003 to further protect the wireless local area network at the agency headquarters. This project was completed using open source software components resulting in no cost to the agency for software purchases, licensing, or support.

SWCD Email Support

During the summer of 2003, the Network Specialist, in coordination with the National Association of Conservation Districts and the USDA-Natural Resources Conservation Service, setup email addresses for each SWCD in Texas. These addresses follow the naming convention of swcdnameswcd@tx.nacdnet.org (Central Texas SWCD = centraltexasswcd@tx.nacdnet.org). A mailing list was also set up to provide a convenient way for participating organizations and SWCDs to communicate with each other.

Email Spam Scanning

In October and November 2003, the Network Specialist configured an additional content filtering system that scores received email based on the likelihood that it is unsolicited commercial email, or spam. The Network Specialist quarantines mails that score above a certain threshold on the server for review. This system has blocked several hundred spam messages since its deployment. This technology compliments other checks in place on the mail server that filter spam emails. This project was completed using open source software components resulting in no cost to the agency for software purchases, licensing, or support.

Secure POP3 Service

In November 2003, the Network Specialist designed and configured a POP3 server on the agency's email server that uses Secure Socket Layer (SSL) technology to encrypt the user names, passwords used by agency email clients to send and receive mail. This greatly diminishes the likelihood of an attacker gaining employees' login credentials as that information travels over the network. This project was completed using open source software components resulting in no cost to the agency for software purchases, licensing, or support.

Network Specialist Duties

The agency Network Specialist performs duties in the following IT areas (as defined in the DIR 2004 Statewide Information Technology Asset Report):

E-Mail Services

Management and administration of all E-Mail support activities and resources. Examples include: E-Mail account management, E-Mail database/disk management, E-Mail application support, Mail server configuration, Mail alias maintenance, Content filtering, Filtering for viruses, worms, and Trojan horses, E-Mail software management upgrades (sendmail, Exchange, etc.), Hardware upgrades on a dedicated E-Mail server, Web Mail / E-Mail gateways.

Web Hosting

Activities and resources related to publishing and maintaining web servers. Examples include: Web server software (e.g., Apache, IIS) upgrades, Disk space upgrades allocated to hosting HTML or web application storage, Statistics and performance monitoring, Web Site content policies, look-and-feel management. Note: Do not include web HTML content development.

Local Area Network Infrastructure

Oversight of design, installation and support of local area network (LAN) servers, bridges, routers, gateways, cabling, hubs and network management systems. Examples include: Developing LAN component requirements and specifications, Testing and evaluating hardware and software, Installing and upgrading LAN components, Supporting network operating system, Troubleshooting, LAN traffic monitoring.

Wide Area Network Infrastructure

Design, installation and support of wide area network components. Examples include: DNS maintenance, Wiring for external hubs and routers, Diagnosing/solving external router errors, Link to the Internet, Router maintenance, Data circuit lease lines.

Financial/Accounting/HR

Support activities such as gathering user requirements, designing, analyzing, coding, configuring, implementing and supporting agency administrative systems. Examples include: Financial/Accounting/Budgeting, Purchasing, Inventory/Asset Management, Human Resources/Payroll, Time and Leave Accounting.

Application Support

Application and database administration activities such as gathering user requirements, designing, analyzing, coding, configuring, implementing, hosting and supporting agency- or program-specific applications. Applications may be web-based, custom, or commercial off the shelf (COTS). Example application areas: Case Management, Claims Management, Contract Management, Document Management, Grants Management, Geographic Information Systems, Issue Tracking, Performance

Measurement/Management, Project Management/Tracking, Records Management, Regulatory-Licensing/Permitting, Enforcement, Scheduling. NOTE: Does not include E-Mail and those administrative systems that are covered in the E-Mail and Financial/Accounting/Human Resources service areas.

Security Services

Network management of design, installation and support of security infrastructure. Examples include: Developing and implementing security policy and procedures, Installing or maintaining firewalls, Installing or maintaining virtual private network (VPN), Penetration testing, Performing network infrastructure security audit.

User Services

General IT customer support functions that are not application-specific and are not covered by another IT Service Area as defined in this report. These customer support functions range from staffing a help desk to end user training and PC installation and maintenance. Examples include: Level One Help Desk support, including all calls from end users, Tracking end user issues and maintaining status of problem management system, Questions about COTS software, PC installation, maintenance and upgrades, Seat management services, Installing applications for end users, End user training, Content filtering for Internet connection, User password maintenance.

Operations/ Other

IT operations and production support functions, plus any other IT activities and resources that were not reported in the previous IT Service Areas. Examples include: Agency IRM functions, Production scheduling, Backups and restoring, File and print services, Performance monitoring and management, Hanging tapes for the mainframe, Upgrading server hardware and software, Server operating system patches, Preventative maintenance, Capacity monitoring management, Assess new server technology and software, Installing and upgrading server hardware, Disaster recovery planning and procedures, Data Center services, Offsite data storage, Directory services, Hard disk formatting, partitioning and setup.

Public Information /Education Report FY03

General Overview

The purpose of the public information/education program is to provide leadership and coordination of information/education programs relating to the agency and district programs, services, operations and resources. The TSSWCB prepares and disseminates public information relative to the agency and district functions, programs, events and accomplishments for the public and to farmers and ranchers. TSSWCB staff coordinates seminars, conferences, workshops, displays at trade shows and training for district directors and district bookkeepers, conservation professionals, youth groups and other entities. Staff provides guidance to districts with their own individual information/education programs as well as regional and state information/education programs initiated by districts. Staff prepares and disseminates press releases, news stories and printed promotional products. The TSSWCB monitors the use of the publications and use of information. Staff represents the agency as needed with various information/education groups and entities. The TSSWCB has a cooperative agreement with the Association of Texas Soil and Water Conservation Districts to provide assistance and help coordinate

district involvement and participation with Association's Information/Education Committee and its programs.

2003 Summer Teacher Workshops

Several teacher workshops are held each summer for teachers interested in conservation and natural resource issues. The workshops are held in various parts of the state in cooperation with the TSSWCB. The Texas Environmental Education Advisory Committee to the Texas Education Agency approves the content of these workshops, sponsored by the TSSWCB. As an approved Environmental Education Professional Development Provider teachers are able to get credit hours toward their required continuing education units (CEUs), while experiencing nature and the outdoors.

2003 Texas Conservation Awards Program

Each year, the Texas State Soil and Water Conservation Board and the Association of Texas Soil and Water Conservation Districts co-sponsor the Texas Conservation Awards Program to recognize and honor those who dedicate themselves and their talents to the conservation and wise use of renewable natural resources. The 2003 Awards Program marked the 25th year of this joint program.

Local districts select their outstanding individuals as winners and submit them by mid-February each year for regional judging. Those selected as regional winners are honored each May at regional Awards Banquets. From these regional winners, a state winner is selected for the Outstanding Conservation Districts, Outstanding Conservation Teacher, Poster Contest, and the Essay Contest. These individuals are invited to the Annual State Meeting for recognition. The State Winners for 2003 were:

- Outstanding Conservation District – Fannin County SWCD, Bonham, Carroll W. Jones, Chairman.
- Outstanding Conservation Teacher – Dr. Tina Davies, High School Biology, John Cooper School, The Woodlands, Montgomery County SWCD.
- Poster Contest – Jessie Neuendorff, LaGrange Intermediate School, LaGrange, Fayette SWCD.
- Essay Contest – Amanda Davis, Brackettville High School, Brackettville, West Nueces-Las Moras SWCD.

The conservation awards program provides competition and incentives to expand and improve conservation efforts, resource development, and increase the wise utilization of renewable natural resources. As a result, soil and water conservation districts, and both rural and urban citizens of Texas are benefited.

Soil and water conservation districts may enter their local recognition honorees in any of 10 categories (East Texas has an additional category of Forestry Conservationist), depending on appropriateness to the category description. For the youth of the district, there is also a poster and essay contest.
The categories and a brief explanation of each are:

Outstanding Conservation District

Awarded to the winning soil and water conservation district in each area for the most outstanding program during the past fiscal year.

Resident Conservation Rancher

Awarded to the outstanding resident conservation rancher in each area. They **must** be a resident of the district, perform ranching activities within the district and be a cooperator with the district from which the entry was submitted. The rancher may have other business or professional interests.

Resident Conservation Farmer

Awarded to the outstanding resident conservation farmer in each area. They **must** be a resident of the district, perform farming activities within the district and be a cooperator with the district from which the entry was submitted. The farmer may have other business or professional interests.

Absentee Conservation Farmer/Rancher

Awarded to the outstanding absentee conservation farmer or rancher in each area. They **must** reside **outside** the district, but operate farming or ranching activities within the district and be a cooperator with the district from which the entry was submitted. The person may have other business or professional interests.

Water Quality Management Plan

Awarded to the outstanding Water Quality Management Plan recipient in each area. They **must** be a district cooperator who has a district approved Water Quality Management Plan and has incorporated water quality into their farming or ranching activities and soil and water conservation work.

Essay Contest

Essays (topic: "The Living Soil") are to be submitted to local soil and water conservation districts for local judging. Each local district will judge the entries and submit three essays to the TSSWCB for competition on the area level. Plaques will be awarded to 1st, 2nd and 3rd place winners on the area level and state winners will be selected from the area winners. This contest is open to students, 18 years and younger, and does not jeopardize Texas University Interscholastic League eligibility.

Poster Contest

Posters should address one of the following subjects: "Food for the Future" or "The Living Soil". Posters shall be submitted to local soil and water conservation districts for local judging. Each local district will judge the entries and submit three posters to the TSSWCB for competition on the area level. Plaques will be awarded to the 1st, 2nd and 3rd place winners on the area level and state winners will be selected from the area winners. This contest is open to students, 12 years and under, and does not jeopardize Texas University Interscholastic League eligibility.

Business/Professional Individual

Awarded to the outstanding man or woman in the business community who has rendered the most unselfish conservation service in each area. Representatives of the news media (radio, television, newspaper, magazines, etc) who contribute to or provide support for conservation shall also be considered

eligible for this award. (This award is not for individual conservation practices or individuals who, because of employment, assist with or augment the work of the soil and water conservation district.)

Conservation Teacher

Awarded to the outstanding teacher of conservation in schools in each area. Teachers of all grade levels are eligible for this award.

Wildlife Conservationist

Awarded to the outstanding wildlife conservationist in each area. They **must** be a district cooperator who has incorporated wildlife conservation into their farming and ranching activities.

Conservation Homemaker

Awarded to the outstanding conservation homemaker in each area. The homemaker and or family **must** own or operate a farm or ranch, be a district cooperator and have knowledge of the conservation programs being implemented.

Conservation District Employee

Awarded to the outstanding soil and water conservation district employee who exhibits a degree of knowledge, skill, ability, and leadership that clearly results in superior job performance far above the basic requirements of the position.

Forestry Conservationist *(Area IV only)*

Awarded to the outstanding forestry conservationist for the most outstanding farm forestry conservation program in the commercial forest areas of Texas. They **must** be a district cooperator or an individual who has implemented conservation practices on their land and has done missionary work for conservation and the district program.

Soil & Water Stewardship Public Speaking Contest

The Soil & Water Stewardship Public Speaking Contest is open to high school FFA students interested in conservation. The contest is aimed at broadening students' interest and knowledge of conservation and how individuals must depend on and take care of the world around them for survival. The contest is coordinated through the Texas FFA, with contests at the local, area and state level. Local winners compete in the 10 state FFA areas and those winners compete for the state title. Each year the state winner is invited to the Annual State Meeting of District Directors to deliver their presentation.

To prepare for the contest, students are to consult with their Agriculture Science teacher and work with their local soil and water conservation district. Students are encouraged to visit with their local SWCD to find out more about conservation practices in their area.

This project is a partnership between the Texas FFA, the Vocational Agriculture Teacher's Association of Texas, The Texas State Soil and Water Conservation Board, and the Association of Texas Soil and Water Conservation Districts.

The Soil & Water Stewardship Public Speaking Contest Winners in 2003 were:

Jaida Brown, Hartley, Hartley SWCD
Donna Mitchell, Lamesa, DawsonSWCD
Danae Trahan, Van Vleck, Matagorda SWCD
Randi Roanhaus, Henrietta, Little Wichita SWCD
Angela Price, Chico, Wise SWCD
Jody Rodenberg, Gilmer, Upshur-Gregg SWCD
Jamie Callahan, Florence, Taylor SWCD
Dillon DeWald, Granbury, Brazos Valley SWCD
Megan Murrell, Winnie, Trinity Bay SWCD
Megan Shearrer, Jourdanton, Atascosa SWCD (2003 State Winner)

The State Winner of the Soil and Water Stewardship Public Speaking Contest is invited to attend the Annual State Meeting each year and asked to deliver their winning address. Without notes, the presentation delivered by Megan Shearrer this year in EL Paso was as follows:

Food for the Future

From insects, spit-roasted animals, dry cracker biscuits, to filet mignon, food and food preservation have been ever changing over the centuries. I'm sure the founding fathers of our country never expected a typical future lunch to be a burger and fries. For a history of Soil Stewardship Week, we turn to the Bedias Creek and Walker County Soil and Water Conservation District's web page. Soil Stewardship began as an early tradition in Europe. Early France was hit by an unexpectedly severe drought. The people implored God to help them, and their situation improved. They set aside special days, or Rogation Days, to thank God for the fertility of the earth and for their harvest. When our country was founded, the tradition became a part of our culture. Soil Stewardship week is our opportunity to be thankful for the fruitfulness of our soils and other natural resources. It is also a time to increase awareness of everyone's personal responsibility to do what he or she can to preserve our nation's resources. "Food for the Future" cannot be possible without conservation in the present. No great thing such as this can be accomplished alone, however. We must all work together in our communities, counties, states, and country to ensure that our posterity has the opportunity to enjoy fertile soils and pure waters. We must give them the chance to enjoy "Food for the Future". Our local Soil and Water Conservation District is concerned with providing "Food for the Future". The conservation of cropping systems, proper grazing techniques, crop residue use, and brush management are among their top priorities. These concerns are affiliated with preserving the ecosystem. The ecosystem is like a giant pyramid. If the foundation of the pyramid shifts, then the entire structure is damaged. That kind of damage could endanger "Food for the Future". In summary, the mission statement dictates that knowledge, understanding, and awareness are the keys to guaranteeing that we leave our descendants with the proper means to fashion "Food for the Future". The local Soil and Water Conservation Districts and communities work hard to make certain that no pieces will be missing when it comes to "Food for the Future". My local area supports many crops. Some of the major crops are peanuts, pecans, watermelons, corn, and strawberries. Without the preservation of soil, water, and other resources, future crops of peanuts or watermelons won't have the nutrients they need to thrive and bear fruit. Thinking ahead is a major characteristic of the "Food for the Future" theme. The local Soil and Water Conservation District is aiming to bring more people to understand the importance of conservation for the future. Urban communities increase the need for "Food for the Future". The Malthusian theory states that population grows geometrically, while food supply and resources only grow arithmetically. Necessity is the mother of invention, however, and

because of modern agricultural advancements, resources, or alternatives to resources, have been able to grow geometrically as well. Still, there will come a point when that is no longer possible and we are faced with the same old problem: more people than adequate resources. The growth of urban areas brings the world closer and closer to testing this theory. This has spurred an agricultural revolution of sorts. More and more alternatives to traditional agricultural practices are being devised daily. Many have turned to watering their crops/gardens with gray water, or wastewater that has been purified by a sewage plant. Genetically engineered foods that are more resistant to diseases and pests are being grown. Alternative forms of finding energy have been developed. Instead of corn, some farmers are growing switchgrass as a fuel source. Ethanol can be produced from the switchgrass at less of an environmental concern. The technology we possess can be used to provide for the future. Agriculture and silviculture, the science of forestry, have one basic thing in common: ecology. Both study the relationships between organisms and their environment, something very important to food production. Altering one environment, such as cutting down too many trees, can change the global environment. We get food from plants and animals, and understanding their relationship with their environment is vital to the prosperity of "Food for the Future". Efficient growing practices can be derived from ecology. Agriculture and silviculture are important to food production because they walk hand in hand, and there would be no food without them. Ensuring food for the future can be done by the city businessman and the small farmer. Urban people should, in summary, reduce resource consumption. Compost piles, family gardens, and alternative means of transportation such as carpooling or bicycles all help to reduce resource consumption. Farmers can use Best Management Practices (BMPs), such as land stripping and skipping rows to benefit preservation of food crops. Drip irrigation is becoming popular. BMPs, if practiced, can contribute to the future health of soil and water in the area. BMPs help farmers while also helping the environment. In my area, the SWCD is assisting approximately 1,300 cooperators. This all means "Food for the Future". To me, "Food for the Future" means providing for the approaching times, just as our ancestors did for us. Inevitably, the population will grow to so much that people will outnumber natural resources. We are all obligated to see that this comes as late as possible. Simple conservation is key. It doesn't take a million dollars or a PhD to recycle, reduce waste, and protect the environment. It is something feasible for everyone, which makes it that much more imperative. As technology grows, we will find other ways to make food production that much more efficient. "Food for the Future" means that my great-grandchildren, as well as yours, have rich soil, clean water, and bountiful harvests.

Wildlife Alliance For Youth

The Wildlife Alliance for Youth (WAY) contests offer opportunities at the local district level for 4-H and FFA students to demonstrate their knowledge of the outdoors on wildlife habitat and management, wildlife laws, sportsmanship and other factual information on wildlife. The program offers scholarships to contest winners. It is a powerful tool for students to become involved in conservation and obtain an appreciation for wildlife.

To compete in the WAY contests, high school FFA students are required to be enrolled in or have completed Agriscience 381: Wildlife and Recreation Management. This is because the WAY contests address the following nine subject areas in Wildlife and Recreation Management: Wildlife Plant Identification; Wildlife Plant Preferences; Wildlife Biological Facts; Wildlife Habitat; Habitat Management; Game Laws; Hunter, Boater and Angler Safety; Compass and Pacing; and Identification Techniques. Students should have an understanding of these subject areas before they compete.

The WAY contests are held in the five Texas State Soil and Water Conservation Board areas. Area IV (East Texas) holds their contest in November, which is the only contest held in the Fall. Area V (North Central) holds their contest in March and Areas I (Panhandle), II (West Texas) and III (South Texas) hold their contests in April. Each team is certified to the area level by their local SWCD. The WAY State Contest is held each May in a different geographical area.

The TSSWCB is the lead agency in sponsoring and organizing the contests. The Association of Texas Soil and Water Conservation Districts, Natural Resources Conservation Service, Texas Parks and Wildlife Commission, Cooperative Extension service, and the Texas Education Agency, along with local soil and water conservation districts (SWCD), all partner in the success of this program.

State Woodland Clinic and Contest

The Texas State Woodland Clinic and Contest is held annually in the month of April. It is a joint effort between local soil and water conservation districts, Stephen F. Austin University School of Forestry and the NRCS-USDA.

It is an opportunity for 4-H and FFA youth to demonstrate their expertise in different aspects of forestry management and skills in identification of needed practices and management techniques. Competition is between teams composed of four members representing either a 4-H Club or a FFA Chapter. Prior to the state contest several local districts conduct contests for 4-H Clubs and FFA Chapters within their district and the surrounding area.

The contest began in the late 1950's and was initiated by local SWCDs and timber industry personnel to develop forestry and woodland curriculum in schools in the commercial timber area of the state (East Texas Piney Woods). The clinic and contest have experienced widespread popularity and now has participation from outside of the commercial timber area on a regular basis. The state participation level for teams averages around 55 teams per year, with the vast majority of teams being composed of FFA Chapters. Winners at the state level are eligible to participate in the four states regional woodland contest held each May in one of four states. Texas, Louisiana, Arkansas and Oklahoma host the regional contest on a rotational basis.

Regional Woodland Contest

The four states regional woodland contest is sponsored by soil and water conservation districts in each of the four states with program and technical support provided by USDA-NRCS and Resource Conservation and Development (RC&D), state organizations and industry personnel. The soil and water conservation districts in Texas hosted the first four states or southern regional woodland contest in 1984.

An attempt was made to expand this clinic and contest to a national level. However, that effort was dropped due to the wide diversity of forestry species and management practices across the nation.

Each state is allowed to send a maximum of six teams to the regional contest. Each state has a competition that determines the six teams from that state that may enter in the regional contest. Those teams may be composed of individuals representing either a 4-H Club or an FFA Chapter.

Conservation Education Video Library

The Association of Texas Soil and Water Conservation Districts has established and updates a conservation related video library that is maintained by TSSWCB staff on their behalf for the benefit of local districts and educators. Currently there are over 180 conservation-related videos in the library available to districts and teachers. No rental fees are assessed to those wishing to borrow the videos from the library. Borrowing privileges are for a length of two weeks and must be returned upon date specified by the librarian. Videos can be ordered through your local soil and water conservation district or by contacting the TSSWCB. During FY 03, 162 videos were loaned to various districts and teachers across the state.

Conservation Education Models

The Nonpoint Source Pollution Watershed Flow Model and the Groundwater Flow Model allow students to understand how water supplies can become polluted from nonpoint sources through interactive demonstrations.

Nonpoint Source (NPS) Pollution Watershed Flow Model

The NPS model is a hands-on representation of a landscape that allows students to understand how water sources can become polluted from nonpoint sources. The plastic landscape structure has industrial, undeveloped, agricultural, and residential and roadway features complete with individual houses, trees, cars, tractors and cows. When "rain" falls on the model, the runoff flows into a city lake. Using various products to add color to the water, the model demonstrates how potential pollutants are picked up by run-off.

The model is a layout of a watershed that includes all the factors that may contribute to polluting our water. (Urban features such as: factories, parking lots, construction sites, lawn chemicals and golf courses and Rural features such as: forested land, dairies, feedlots, cropland and pastureland). To demonstrate how each type of potential pollutant can enter a water body Kool-Aid and cocoa are used to color “runoff”. Grape Kool-Aid is used to represent pollution from factories and oil from parking lots and roads. Orange Kool-aid represents pollution from lawn chemicals, golf courses, and cropland and pastureland chemicals. Cocoa is used to represent pollution from construction sites, forested land, dairies and feedlots. The Kool-aid and Cocoa are sprinkled on the model in the areas that represent each type of pollutant. Once all the pollutants are sprinkled on the model a spray bottle with water is use to represent rainfall. As the pollutants get wet and start to runoff the students can see how the water carries them to the streams and into the lake where we get our drinking water. Once all the pollutants have run into the lake the students can see how these factors have the potential to make surface waters unattractive and unsafe. This demonstration leads to a discussion about how to protect the water quality and prevent our water from looking like the model.

Groundwater Flow Model

This model shows a cross-section of soil layers with a lake, a lagoon, and several wells represented. It uses a vacuum pump to make the water move through the soil layers and injection dyes to help visualize the flow of groundwater though soil and demonstrates how pollutants can travel in groundwater. The model demonstrates both percolation and the movement of groundwater due to pumping. Accompanied

by an instructional video with tips on the setup, presentation and cleanup, the model is useful and easy to use.

Public Information and Education Program Transition

During FY03, the Public Information and Education Department consisted of four full-time employees. The TSSWCB FY04 Public Information and Education Program appropriations were eliminated from the budget, resulting in the loss of the four full-time employees that were in the department.

Because our conservation program is a voluntary program, education and information concerning the availability, value, and need for soil and water conservation is an important tool for contributing to continuing participation and support for the program. To maintain a minimum level of outreach and assist local districts with their planned programs, our agency has reorganized in a manner that provides for the public information and education program to be coordinated through one employee who is also assigned to Human Resource responsibilities.

Brush Control Program

The TSSWCB's Brush Control Program is designated to enhance water availability by removing water-depleting brush and trees, such as cedar and mesquite, which have invaded much of the state's cattle grazing land. In 1985, the Legislature directed the TSSWCB to administer the program entailing the development of management strategies and the designation of areas where brush control is most needed.

In 1999, the Legislature appropriated $9 million to the TSSWCB for financial incentives to landowners who adopted Water Quality Management Plans and would participate in a Brush Control Pilot Project in the North Concho River Basin.

The Brush Report for this document is attached. It is also a stand-alone document that meets the requirements of §203.056, Texas Agriculture Code, which requires the TSSWCB to prepare an Annual Report on the activities of the Brush Control Program for the preceding calendar year.

State appropriated grants made to entities other than a local district was made to the Upper Colorado River Authority in the amount of $60,000.00 to conduct North Concho River Pilot Brush Control Program monitoring and paired watershed evapotranspiration studies.

TEXAS STATE SOIL AND WATER CONSERVATION BOARD
FY04 OPERATING BUDGET VERSUS EXPENDITURE REPORT
FOR THE TIME PERIOD THRU DECEMBER 23, 2003

A. GOAL: To Protect and Enhance the Farm and Grazing Land of Texas by Ensuring that a Quality Conservation Program is Available and Being Applied in All Soil and Water Conservation Districts and that Funds are Being Used Effectively to Increase Water Yield in Targeted Areas

STRATEGY 1.

Provide Program Expertise, Technical Guidance and Assistance, and Financial Assistance on a Statewide Basis in Managing and Directing Conservation Programs

Object of Expense	Budget	Expended	Balance
Salaries and Wages	$583,855.00	$140,723.27	$443,131.73
Administrative and Operating Expenses	$338,675.00	$57,929.51	$280,745.49
Programs			
Director Mileage and Per Diem	$325,000.00	$250,860.64	$74,139.36
Conservation Assistance Grant (Matching Funds)	$916,364.00	$175,996.58	$740,367.42
Technical Assistance Grant	$1,036,241.00	$508,794.36	$527,446.64
Subchapter H Water Conservation Grant	$115,000.00	$0.00	$115,000.00
Strategy Subtotal	$3,315,135.00	$1,134,304.36	$2,180,830.64
Full Time Equivalent Positions:	13		

STRATEGY 2.

Provide Financial and Technical Assistance to Implement Brush Control Projects to Increase Water Yields in Targeted Watersheds

Object of Expense	Budget	Expended	Balance
Salaries and Wages	$0.00	$0.00	$0.00
Administrative and Operating Expenses	$0.00	$0.00	$0.00
Programs			
Unexpended Balance Forward Bond Funds	$11,250,000.00	$0.00	$11,250,000.00
Unexpended Balance Forward General Revenue	$100,000.00	$0.00	$100,000.00
General Revenue	$3,114,794.00	$284,427.72	$2,830,366.28
Strategy Subtotal	$14,464,794.00	$284,427.72	$14,180,366.28
Full Time Equivalent Positions:	0		

TEXAS STATE SOIL AND WATER CONSERVATION BOARD
FY04 OPERATING BUDGET VERSUS EXPENDITURE REPORT
FOR THE TIME PERIOD THRU DECEMBER 23, 2003

B. GOAL: To Effectively Administer a Program for the Abatement of Nonpoint Source Pollution Caused by Agricultural and Silvicultural Uses of the State's Soil and Water Resources

STRATEGY 1.

Implement and Update as Necessary a Statewide Management Plan for the Control of Agricultural and Silvicultural Nonpoint Source Water Pollution

Object of Expense	Budget	Expended	Balance
Salaries and Wages	$184,182.00	$43,128.95	$141,053.05
Administrative and Operating Expenses	$162,834.00	$41,395.31	$121,438.69
Programs			
319(h) Federal Grants to Cooperating Entities	$3,826,987.00	$551,611.32	$3,275,375.68
Strategy Subtotal	$4,174,003.00	$636,135.58	$3,537,867.42
Full Time Equivalent Positions:	5		

STRATEGY 2.

Develop and Implement Pollution Abatement Plans for Agricultural and Silvicultural Operations in Identified Problem Areas

Object of Expense	Budget	Expended	Balance
Salaries and Wages	$1,132,657.00	$256,156.21	$876,500.79
Administrative and Operating Expenses	$427,778.00	$93,735.51	$334,042.49
Programs			
Nonpoint Source Water Quality Management Plan Cost-Share Program (S.B. 503)	$2,171,740.00	$128,188.15	$2,043,551.85
Poultry Water Quality Management Plan Program (S.B. 1339)	$250,000.00	$0.00	$250,000.00
Strategy Subtotal	$3,982,175.00	$478,079.87	$3,504,095.13
Full Time Equivalent Positions:	29		

TEXAS STATE SOIL AND WATER CONSERVATION BOARD
FY04 OPERATING BUDGET VERSUS EXPENDITURE REPORT
FOR THE TIME PERIOD THRU DECEMBER 23, 2003

C. GOAL: Indirect Administration

STRATEGY 1.
Indirect Agency Administration

Object of Expense	Budget	Expended	Balance
Salaries and Wages	$282,865.00	$54,687.99	$228,177.01
Administrative and Operating Expenses	$130,400.00	$59,124.00	$71,276.00
Strategy Subtotal	$413,265.00	$113,811.99	$299,453.01
Full Time Equivalent Positions:	7		
TOTAL OPERATING BUDGET	**$26,349,372.00**	**$2,646,759.52**	**$23,702,612.48**
TOTAL FULL TIME EQUIVALENT POSITIONS:	**54**		

TEXAS STATE SOIL & WATER CONSERVATION BOARD

SEMI – ANNUAL REPORT

TO THE

GOVERNOR,
LIEUTENANT GOVERNOR,
AND
SPEAKER OF THE HOUSE

JULY 1, 2004

FORWARD

In response to S.B. 1828 passed by the 78th Texas Legislature in Regular Session, 2003, the Texas State Soil and Water Conservation Board presents this review of its programs and activities. S.B. 1828 added §201.028 to the Texas Agriculture Code to provide that the TSSWCB shall prepare and deliver to the Governor, the Lieutenant Governor, and the Speaker of the House of Representatives a report, not later than January 1 and July 1 of each year, relating to the status of the budget areas of responsibility assigned to the State Board including outreach programs, grants made and received, federal funding applied for and received, special projects, and oversight of water conservation district activities.

Additionally, S.B. 1828 added §201.029 to the Agriculture Code requiring the State Auditor, in coordination with the Legislative Board to conduct a management audit of the TSSWCB and deliver the audit report to the Governor, the Lieutenant Governor, and the Speaker of the House of Representatives. The audit report was required to include an evaluation of the administrative budget for the TSSWCB. The audit was required to be delivered by March 1, 2004 and §201.029 expired April 1, 2004.

The State Auditor management audit report along with TSSWCB management response is attached to this report.

The FY04 Operating Budget versus Expenditures is attached to this report. Information on grants made to local districts and other entities is incorporated within the program section it involves. Federal grants received for the Clean Water Act are provided in that section.

The Texas State Soil & Water Conservation Board takes pride in the accomplishments and remarkable progress that have been made in soil and water conservation in this state. Often environmental successes are slow to be realized. We have realized and already reported one success story that involves reducing the level of Atrazine in several water bodies, particularly the Aquilla Reservoir in the Hill County-Blackland SWCD.

However, we recognize there remains a continuing challenge and an ongoing need to ensure our land has the capability to produce food and fiber for future Texans. Because of changes in land use, ownership, technology, and population growth, the need for soil and water conservation programs will remain critical. Texas has a finite number of acres to provide for the needs and desires of citizens and visitors, and this places an ever-increasing demand on agricultural land. Farmers and ranchers face complex decisions concerning the best ways to manage and utilize the land available to them.

We believe that soil and water conservation programs must remain dynamic as land uses change and technology improves to make some conservation practices more capable of meeting demands on soil and water resources. We also maintain the belief that the purpose of the soil and water conservation program is to promote the wise use of our renewable natural resources and provide for the conservation and enhancement of the soil and water resources of this state through and by the dynamic decisions of local soil and water conservation districts which promotes the use of each acre of land within its capabilities and treating it according to its needs.

From the beginning, the Texas State Soil and Water Conservation Board and local soil and water conservation districts have formed an organizational framework through which various complex governmental conservation programs are delivered to local landowners and operators. This relationship

has successfully been utilized to disseminate sound management techniques and practices to maintain individual productive land uses to provide for the needs of present and future generations.

To the landowners of Texas, the individual soil and water conservation district directors, and the many agencies and organizations assisting and working with our programs, we offer our sincere thanks.

Table of Contents

	Page
Historical Background	6
Organization	8
Staff	8
Soil And Water Conservation Districts	10
Annual State Meeting Of Soil And Water Conservation District Directors	12
Director Mileage And Per Diem	12
District Technical Assistance Funds	12
District Sub-Chapter H Funds	12
District Conservation Assistance Program	12
Management Audit	12
Programs & Activities Supporting The TSSWCB	13
Total Maximum Daily Load (TMDL) Program	13
Clean Water Act, §319(h) Grant Program	13
Water Quality Management Plan (WQMP) Program	16
Poultry Water Quality Management Plan (WQMP) Initiative	18
North Bosque River Watershed Initiative	21
Dairy Manure Export Support (DMES) Program	21
Comprehensive Nutrient Management Plan (CNMP) Program	22
Water Quality Management Plan (WQMP) Program Implementation in the North Bosque Watershed	23
Clean Water Act, §319(h) Grant Projects in the North Bosque Watershed	23
Texas Atrazine Initiative	26
Background	26
Development of the Texas Approach	27
Implementation of the Atrazine Initiative	28
Atrazine Initiative Results – A Success Story	29
Coastal Management Program	30
Background	30
Current Status	31
Information Technology	32
LDAP Directory Service	32
Expansion of Broadband Network Connectivity	32
PC Hardware Replacement	32
SMTP Authentication Service	32
Remote Administration of Workstations	32
Fireproof Safes for Regional Offices	33
Facility Monitoring Enhancement	33
Public Information /Education Report FY03	33
General Overview	33
2004 Summer Teacher Workshops	34
2004 Texas Conservation Awards Program	34
Outstanding Conservation District	34
Resident Conservation Rancher	35

Resident Conservation Farmer	35
Absentee Conservation Farmer/Rancher	35
Water Quality Management Plan	35
Essay Contest	36
Poster Contest	36
Business/Professional Individual	36
Conservation Teacher	37
Wildlife Conservationist	37
Conservation Homemaker	37
Conservation District Employee	37
Forestry Conservationist (Area IV only)	37
Soil & Water Stewardship Public Speaking Contest	38
Wildlife Alliance For Youth	38
State Woodland Clinic and Contest	39
Regional Woodland Clinic	39
Conservation Education Video Library	40
Conservation Education Models	40
Nonpoint Source (NPS) Pollution Watershed Flow Model	40
Groundwater Flow Model	40
Public Information and Education Program Transition	41
Brush Control Program	41
TSSWCB FY04 Operating Budget vs. Expenditures	Atch 1
Management Audit	Atch 2

HISTORICAL BACKGROUND

In the early history of the United States, those involved in agriculture often did not consider the conservation of soil and water resources . . Land was cleared and put into farm production. When the land quit producing at a profitable level, the farmers merely moved on to new land farther west and started the process over again. There was no need to be concerned with soil conservation, as there was a seemingly unlimited supply of virgin land waiting to be tilled. This process continued through the 1800s and into the early 1900s. With the outbreak of World War I, farmers in the Great Plains states were encouraged to break out native grassland to grow wheat and other foodstuffs to feed the nation and the world. As a result of these and other unwise management practices and the fact that the farmlands were experiencing long periods of drought, the 1930s produced some of the worst dust storms the nation had ever seen. Clouds of dust rolled across the plains states sending dust storms through the south and into the nation's capitol. At the same time, the nation was in the midst of a great economic depression. The federal government, seeking ways to put people back to work and encourage conservation, created the Civilian Conservation Corps and Soil Erosion Service. Through these mechanisms, demonstration projects were initiated to train technicians and to educate the public in ways to conserve soil resources. These programs were successful in putting people back to work, but lacked the local ties to establish lasting conservation programs.

One of the early day leaders in the national effort to control soil erosion was Hugh Hammond Bennett from North Carolina. After graduation from the University of North Carolina in 1903, Hugh Bennett took a job with the Bureau of Soils in the United States Department of Agriculture. Because of his experience, scientific knowledge and leadership ability, he was put in charge of the Soil Erosion Service when it was created in 1933. In 1935, P.L. (Public Law) 46 was passed creating the Soil Conservation Service within the U.S. Department of Agriculture and Hugh Bennett became the first Chief of the agency. He soon became internationally known for his accomplishments in conservation work.

With the help of Congressman Buchannan from Columbus, Texas, Hugh Bennett was able to persuade President Franklin Roosevelt that the soil resources of this nation were being wasted. He convinced the President that a Model Soil Conservation Act should be developed and sent to the governors of each state for passage by their state legislatures. The purpose of this Model Act would be to develop programs at the state and local level to control soil erosion.

In 1936, such a Model Act was sent to the governors with the endorsement of President Roosevelt. The Model Act, developed in Washington, was patterned after the Texas Wind Erosion Act, the Grass Conservation Acts in the Northern High Plains and certain water conservation district law.

In 1937 legislation was introduced in the Texas Legislature based on this Model Act. It is reported that as many as 25 different versions of this soil conservation law were considered before a final version was passed. There was much heated discussion of the proposed legislation. When the final version was adopted, the bill contained many undesirable features. The law would have set up Soil Conservation Districts automatically on a county basis and made County Commissioners Courts the governing body. A portion of the county tax was to be used to finance the program and county agricultural agents were to be the administrative officers.

A number of agricultural leaders from across the state had, by this time, become concerned about the newly passed legislation. It was their opinion that, if the responsibility for installing and maintaining conservation measures lay in the hands of the land owners, the control of such a program should also be

in their hands. As a result of these and other concerns, a group of landowners led by V.C. Marshall of Heidenheimer, Texas, convinced the Governor to veto the 1937 legislation.

Hard feelings among agricultural leaders resulted from the attempt to pass this soil conservation law. Under the leadership of Mr. Marshall, a concerted effort was made during the interim between legislative sessions to heal the old wounds and to put together a version of a law that would be generally accepted by the farmers and ranchers of Texas. Mr. Marshall organized a committee of leaders from across the state to promote the passage of a new Soil Conservation Law. He traveled many miles at his own expense seeking the views of agricultural leaders and promoting the idea of the Soil Conservation District Program.

The key points Mr. Marshall felt should be included in the new law were that (1) farmers and ranchers should determine whether or not a Soil Conservation District was needed and hold a local option election prior to the establishment of the district; (2) the program should be controlled by landowners; and (3) the Soil Conservation Districts should have no taxing authority or the power of eminent domain.

In 1939 the Texas Legislature passed H.B. (House Bill) 20 which incorporated those features and was the first Soil Conservation Law for the state. The law created the State Soil Conservation Board and allowed for the creation of the Soil Conservation Districts. Mr. Marshall was elected as the first Chairman of the Soil Conservation Board and later resigned to become the first Executive Director of the agency.

On April 30, 1940, the Secretary of the State issued Certificates of Organization for the first 16 Soil Conservation Districts paving the way for the program we now operate. Today, Texas has 217 local soil and water conservation districts that encompass more than 99% of the state.

As previously mentioned, the Model Act endorsed by President Roosevelt was in part patterned after the Texas Wind Erosion Act. Texas was already making attempts to address soil conservation as a result of the "Dust Bowl" days of the 1930s. The 44th Legislature in 1935 passed legislation authorizing the establishment of Wind Erosion Conservation Districts. This law provided for the creation of districts to "conserve the soil by prevention of unnecessary erosion caused by winds, and the reclamation of lands that have been depreciated or denuded of soil by reasons of winds." Although a number of Wind Erosion Control Districts were created, the passage of the Soil Conservation District Law in 1939 resulted in those districts becoming dormant.

In 1975, Governor Dolph Briscoe, by Executive Order, designated the TSSWCB as lead agency to assume the planning and management responsibility for control of agricultural and silvicultural nonpoint source pollution as required by the Federal Water Pollution Control Act.

In 1981 the 67th Legislature passed H.B. 1436, which for the first time codified the agricultural laws of Texas. Title 7, Chapter 201 of this code contains the portion pertaining to Soil and Water Conservation.

In 1985 the 69th Legislature passed S.B. 1083 creating a Brush Control Program in Texas and granting new powers and responsibilities, without funding, to the TSSWCB and Soil and Water Conservation Districts under Chapter 203 of the Agriculture Code. In 1999, the TSSWCB received its first appropriation in the FY00-01 biennium to control water-depleting brush and trees, such as cedar and mesquite. The program received $9.1 million to establish a pilot project in the North Concho Watershed.

In 1993, the 73rd Legislature passed S.B. 503 which named the TSSWCB the lead agency to address water quality issues relating to runoff from diffused, or nonpoint sources resulting from agricultural and forestry operations. In 1999, the Legislature expanded the TSSWCB's environmental mission and appropriated money to address water pollution from nonpoint sources under a separate, federally mandated program.

The leaders who framed the Texas Soil and Water Conservation Law in 1939 recognized that landowners and operators of private land constitute the basic resource for the conservation of our renewable natural resources. Without the support and willing participation of private landowners and operators in the development and implementation of soil and water conservation programs there is little hope of success. Local soil and water conservation districts led by farmers and ranchers who know the land and the local conditions and problems have the means to develop conservation plans that address each acre of land specific to its needs to solve or reduce the severity of its problems.

ORGANIZATION

Since inception, the TSSWCB has been governed by five board members, elected by delegates from each of five regions of the state's 217 local soil and water conservation districts. Elections occur annually at regional conventions of the local soil and water conservation districts, with members serving two-year staggered terms. However, with the enactment of S.B. 1828 by the 78th Legislature, two Governor appointees join the five elected board members to create a seven-member board. Currently the two Governor appointed positions remain unfilled. When appointed, the term of one member appointed by the Governor expires February 1 of each odd-numbered year, and the term of the other member appointed by the Governor expires on February 1 of each even-numbered year.

Elected State Board members must be 18 years of age or older; hold title to farmland or ranchland; and be actively engaged in farming or ranching. The Governor appointees must be actively engaged in the business of farming, animal husbandry, or other business related to agriculture and wholly or partly owns or leases land used in connection with that business; and may not be a member of the board of directors of a conservation district.

The State Board elects its own Chair and generally meets every odd month, unless specific programs or issues require more immediate action. The following list shows the current Board members and shows which State Board Region they represent.

Texas State Soil and Water Conservation Board

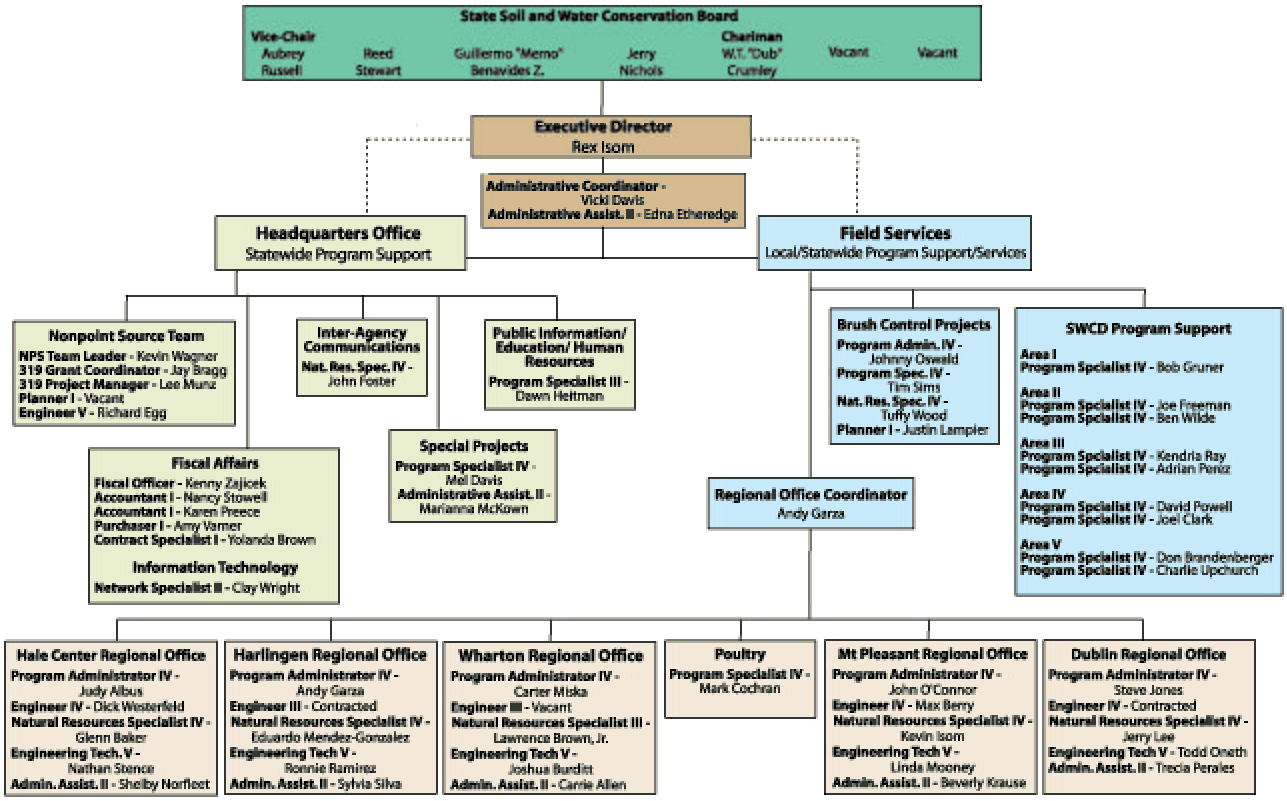
Member Name	Region	Term	Residence
Aubrey L. Russell	#1	May 5, 2003 – May 3, 2005	Panhandle
Reed Stewart	#2	May 4, 2004 – May 2, 2006	Sterling City
Guillermo "Memo" Benavides Z.	#3	May 5, 2003 – May 3, 2005	Laredo
Jerry D. Nichols	#4	May 4, 2004 – May 2, 2006	Nacogdoches
W.T. "Dub" Crumley	#5	May 5, 2003 – May 3, 2005	Stephenville

STAFF

The TSSWCB began downsizing in July 2003 and in that process the Board appointed Rex Isom as Interim Executive Director. Mr. Isom was named as the Executive Director in January 2004 and continues to carry out the directives of the State Board and directing staff efforts.

We emphasize our agency philosophy as stated in our Strategic Plan, "The State Soil and Water Conservation Board will act in accordance with the highest standards of ethics, accountability, efficiency, and openness. We affirm that the conservation of our natural resources is both a public and a private benefit, and we approach our activities with a deep sense of purpose and responsibility." Mr. Isom, as Executive Director, is leading the agency in that direction and expects all employees to follow that lead.

On December 1, 2002 the TSSWCB employed 62 staff, 28 of which worked in the Temple headquarters. The remaining 34 employees were field staff, either working out of their homes or located in the five regional offices located throughout the state. The FY04 budget for personnel was reduced and as of June 1, 2004 the TSSWCB employs a total of 53, with 17 employees working in the Temple headquarters and 36 employees in the field. Due to difficulty in recruiting engineers, two field engineer positions are contracted. The following organization chart shows the agency's current structure.



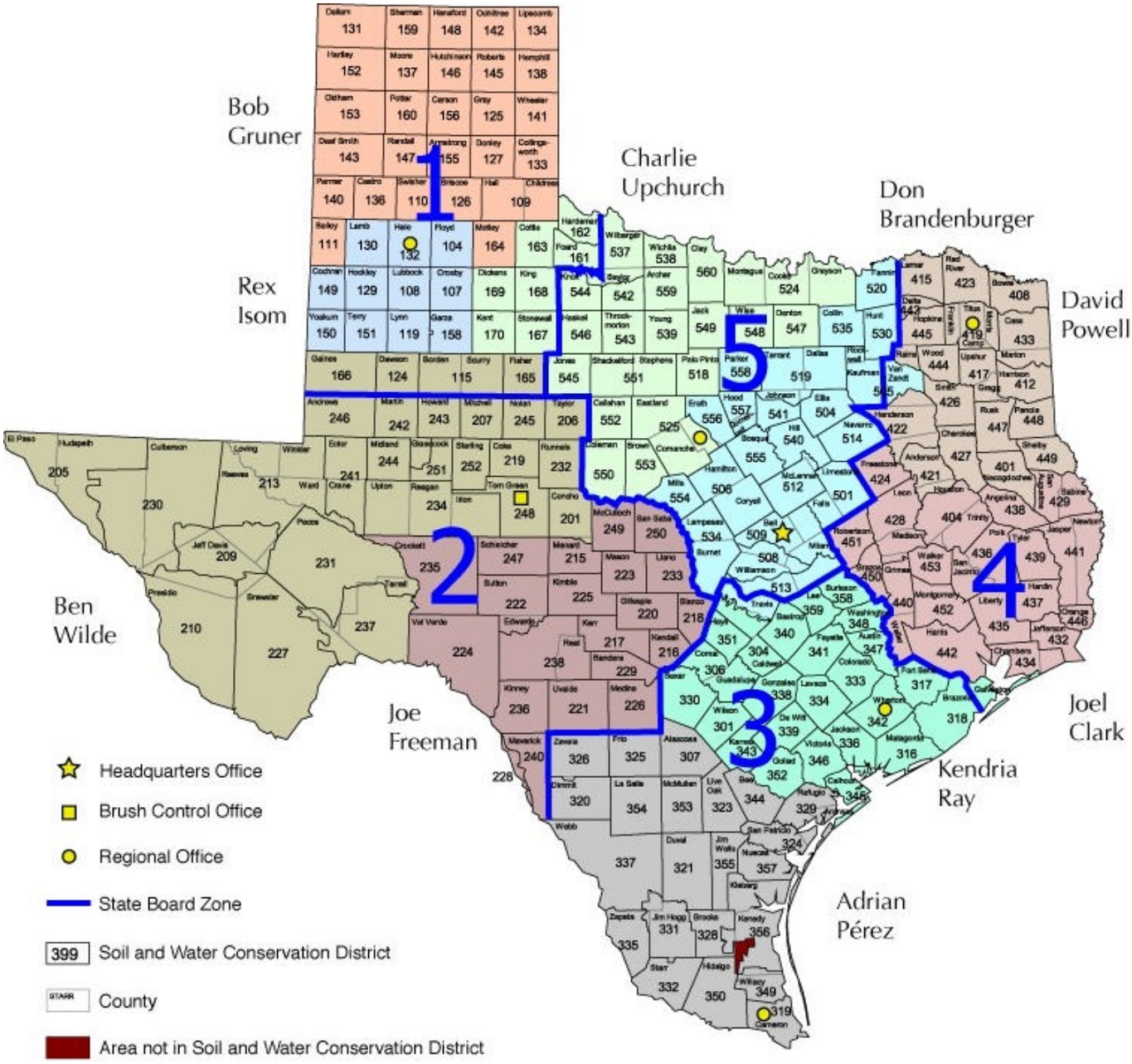
The current results of restructuring the TSSWCB's organizational structure to move more personnel to the field and away from the headquarters has been a 70% to 30% ratio of Field personnel to Headquarter personnel. Prior to restructuring, the ratio for Field Staff to Headquarter Staff was 55% to 45%.

The regional office staff provides on-site technical assistance to farmers and ranchers. The field staff serves as a liaison between the TSSWCB and local districts. The field staff also provides assistance to local districts and district employees concerning operations, programs, and activities. The regional office staff coordinates with the Texas Commission on Environmental Quality (TCEQ), Texas Cooperative Extension (TCE), and the USDA's Natural Resource Conservation Service (NRCS) to provide technical assistance to landowners on conservation projects.

SOIL AND WATER CONSERVATION DISTRICTS

The TSSWCB performs many of its activities in coordination with the state's 217 local soil and water conservation districts. These local districts are political subdivisions of the state, established through local option elections of agricultural landowners. Districts generally reflect county boundaries, but may also follow river basin or watershed boundaries, depending on the desires of the local landowners.

The following soil and water conservation district map shows the current 217 local districts that cover almost the entire state. That portion of the state not in a soil and water conservation district is in Kenedy County and contains the privately owned King Ranch. The map also shows the grouping of the districts into the five State Board Districts that respectively elect a State Board member and shows the field staff that is assigned to work with each district within a specific area.



Landowners within these local districts elect the five district directors that comprise the districts governing body or board of directors. This board of directors administers the programs and activities of the district. Representatives of the districts within each region then elect the members of the State Board through a series of convention style-elections.

Districts do not have taxing authority and rely on locally generated funds from various activities and programs, federal assistance, county assistance, and state assistance from the TSSWCB. The USDA Natural Resource Conservation Service (NRCS) provides most of the federal assistance available to districts and through cooperative agreements provides technical assistance to farmers and ranchers requesting assistance from the district.

ANNUAL STATE MEETING OF SOIL AND WATER CONSERVATION DISTRICT DIRECTORS

The Annual State Meeting of Soil and Water Conservation District Directors, required in §201.081, Texas Agriculture Code, is scheduled for October 18-20, 2004 in Laredo.

DIRECTOR MILEAGE AND PER DIEM

Due to the reductions in staff at the headquarters office, director mileage and per diem claims are now managed directly by districts. The TSSWCB sent each district 75% of their approved allocation (grant) on October 1, 2003. The remaining 25% will be used as a pool for any expenses not covered through the initial allocation (grant). Field staff will approve each claim before payment to ensure claims are accurate and comply with state statutes and guidelines. The FY04 state appropriation for this program is $325,000.00.

DISTRICT TECHNICAL ASSISTANCE FUNDS

Rider 4 of the TSSWCB 2004-2005 Appropriation revised the allocation method for technical assistance funds. On September 1, 2003, the TSSWCB authorized the payment of 25% of each district's approved allocation (grant). The remaining balance for each district allocation will be distributed on a reimbursement basis during the fiscal year as expenditures are incurred. The FY04 state appropriation for this program is $1,036,241.00.

DISTRICT SUB-CHAPTER H FUNDS

Sub-chapter H funds were appropriated to the TSSWCB from the Agricultural Soil and Water Conservation Account No. 563. Senate Bill 1053 enacted by the 78th Legislature moved the bond that funded Account No. 563 to the Texas Water Development Board (TWDB). Account No. 563 no longer exists and future funding for what was Sub-chapter H grants will come from the TWDB in the form of competitive Agricultural Water Conservation Grants. This spring the TWDB adopted rules and developed a grant application process for distributing the funds from the fund. The TSSWCB, on behalf of districts, applied to the TWDB for grant funding. The Texas Water Development Board met June 16, 2004 to review applications and awarded the State Board a grant of $115,000.00 for agricultural water conservation to be carried out by districts. The FY04 state appropriation for this program is$115,000.00.

DISTRICT CONSERVATION ASSISTANCE PROGRAM

District Conservation Assistance funds are appropriated to the TSSWCB from general revenue funds. Of the 217 local soil and water conservation districts, 216 districts request to receive an allocation (grant) from these funds. Local districts receive these funds as a dollar for dollar match for money that they generate locally through various activities. The local districts use this money to pay operational expenses. The FY04 state appropriation for this program is $916,364.00.

MANAGEMENT AUDIT

In accordance with Senate Bill 1828, Section 5, 78th Legislature, Regular Session, the State Auditor's Office (SAO) implemented a management audit of the Soil and Water Conservation Board (TSSWCB). The purpose of the audit as outlined in SB 1828 was to determine whether the TSSWCB maintains and

reports reliable data, safeguards assets and uses them efficiently, complies with relevant laws and regulations, and makes progress towards its goals and objectives The audit focused primarily on conditions and transactions from fiscal years 2000 through 2003. Please reference Attachment 2 Audit Report for SAO recommendations and TSSWCB management responses.

PROGRAMS & ACTIVITIES SUPPORTING THE TSSWCB

The services and programs provided by the TSSWCB target rural Texas farmers and ranchers, but the results of these services benefit all Texans. For example, many of the flood control structures maintained by soil and water conservation districts serve to protect heavily populated areas from flood damage, and also prevent sediment from building up in suburban drinking water supplies. Another example is the use of best management practices, implemented through TSSWCB-certified water quality management plans, to prevent pesticides, nutrients, and other contaminants from impairing Texas waters.

The agency is responsible for numerous natural resource conservation efforts, the most prominent of which is serving as the lead state agency for the prevention, management, and abatement of nonpoint source pollution resulting from agricultural and silvicultural, or forestry-related, activities. As a result, the majority of the agency's programs and services aim to improve and protect water *quality*. The TSSWCB is also responsible for water conservation, or water *quantity*. The major existing program addressing water conservation is the Texas Brush Control Program, although the agency is currently working on a new program that will provide assistance to Texas landowners who irrigate cropland from both ground and surface water sources. Other responsibilities include prevention of soil erosion, control of floods, maintaining the navigability of waterways, the preservation of wildlife, protection of public lands, and providing information to landowners regarding the jurisdictions of the TSSWCB and the Texas Commission on Environmental Quality related to nonpoint source pollution. The TSSWCB has no regulatory functions; all of the agency's programs and services are voluntary in nature.

TOTAL MAXIMUM DAILY LOAD (TMDL) PROGRAM

Section §303(d) of the 1972 Federal Clean Water Act (CWA) requires all states to compile a list of water bodies that do not meet their designated uses and then to develop total maximum daily loads (TMDLs) for the particular pollutant(s) that is causing the impairment. Following the development of a TMDL, a state approved implementation plan is developed prescribing the measures needed to restore the polluted water bodies.

In Texas, the responsibility to develop TMDLs is shared between two state agencies: the Texas State Soil and Water Conservation Board (TSSWCB) and the Texas Commission on Environmental Quality (TCEQ). In general, the TCEQ is the lead agency for protecting Texas' water quality. However, TCEQ shares the responsibility for managing and abating nonpoint source pollution with the TSSWCB. The TSSWCB is designated as the lead agency for *agricultural and silvicultural* nonpoint source pollution abatement while the TCEQ is the state's lead agency for *urban* nonpoint source pollution abatement and for *point source discharge permitting* through the Texas Pollutant Discharge Elimination System. As a result, any organization considering undertaking a TMDL project for a water body listed for an impairment due to agricultural or silvicultural nonpoint source pollution must coordinate efforts with the TCEQ and with the TSSWCB.

There are numerous watershed segments on the §303(d) List that involve agricultural nonpoint source (NPS) pollution and are targeted by TSSWCB Programs (i.e. CWA §319 and WQMP Programs) as

funding becomes available. The TSSWCB is actively involved in the development for of TMDLs for 24 water bodies and the implementation of 5 TMDLs (E.V. Spence Reservoir, North Bosque River, Lake Aquilla, Lake of the Pines, and Arroyo Colorado) that have been identified as being impaired, at least in part, by agricultural activities. These TMDLs, which are primarily addressing dissolved oxygen/nutrients, bacteria, Atrazine, and salinity, are being implemented using both CWA §319 funding and WQMP Program funds. These programs are described in detail in following sections.

CLEAN WATER ACT, §319(h) GRANT PROGRAM

In the 2003 Federal Grant Cycle the TSSWCB applied on May 12, 2003 for and received on September 11, 2003, a grant of $5,513,600.00 to carry out our responsibilities under the Clean Waters Act. The programs and projects to which those funds are being expended are listed below. During January 2004, EPA started a new grant cycle. At that time the TSSWCB submitted a grant application for $5,457,800.00. The projects submitted for funding are listed below. These projects will be initiated in August 2004 and are scheduled for completion in March 2007.

FY04 CWA§319 Grant Funding

Grantee	Amount	Project Title
Administered by the TSSWCB	$154,220	Grant Administration
Administered by the TSSWCB	$520,477	Statewide Technical Assistance and Information Education Assistance
Texas A&M University	$390,657	Field Validation of Phosphorous Index
Lower Colorado River Authority	$507,300	Creekside Conservation Program
USDA – Natural Resource Conservation Service	$96,000	Model Impacts of WQMP Development in Sam Rayburn
Jack Soil and Water Conservation District	$100,000	WQMP Implementation Assistance in Jack SWCD
Zapata Soil and Water Conservation District	$461,290	WQMP Implementation Assistance in Falcon Reservoir Watershed
Haskell, Knox, and Jones Soil & Water Conservation Districts	$764,054	Seymour Aquifer Water Quality Improvement Project
USDA – Agricultural Research Service	$136,724	Leaf Beetle Dispersion Modeling
Nueces River Authority	$170,703	Nueces River Education Project
Leon-Bosque RC&D	$300,000	Field of Dreams Project

Tarleton State University	$238,859	Phytoremediation of Excessively High Phosphorous Soils
Texas Agricultural Experiment Station	$709,381	Pecos River Basin Assessment Project
Texas Institute of Applied Environmental Research	$90,090	Little Wichita River Basin Assessment Project
Upper Colorado River Authority	$375,240	Concho River Basin Assessment Project
Northeast Texas Municipal Water District	$442,805	Assessment of Ag NPS Activities in the Cypress Creek Basin
Total:	$5,457,800	

FY03 CWA§319 Grant Funding

Grantee	Amount	Time Period	Project Title
Administered by the TSSWCB	$154,231	5/12/03-3/31/06	Grant Administration
Administered by the TSSWCB	$245,109	5/12/03-3/31/06	Statewide Technical Assistance and Information Education Assistance
Upper Colorado River Authority	$19,200	5/12/03-3/31/06	The Aquatic Experience
Texas Forest Service	$367,620	5/12/03-3/31/06	Texas Silviculture BMP Effectiveness
Shelby Soil & Water Conservation District	$350,000	5/12/03-3/31/06	Sam Rayburn WQMP Implementation Supplemental
Texas Agricultural Experiment Station	$247,198	5/12/03-3/31/06	Bacteria Monitoring for Buck Creek
Texas Cooperative Extension	$98,341	5/12/03-3/31/06	Nitrate Impacts in Groundwater
Central Texas Soil & Water Conservation District and Little River – San Gabriel Soil & Water Conservation District	$424,080	5/12/03-3/31/06	Central Texas Water Quality Management Plan Implementation Assistance (Supplemental)
Texas Agricultural Experiment Station	$227,793	5/12/03-3/31/06	Technologies for Animal Waste Pollution

Navarro Soil & Water Conservation	$430,279	5/12/03-3/31/06	Navarro Water Quality Management Plan District Implementation Assistance (Supplemental)
Administered by the TSSWCB	$95,490	5/12/03-3/31/06	Santa Rosa Springs Well Plugging
Brazos River Authority	$96,081	5/12/03-3/31/06	Edge of Field Monitoring
Texas Cooperative Extension	$101,271	5/12/03-3/31/06	Reducing Atrazine Losses in Central Texas
USDA – Natural Resources Conservation Service	$158,400	5/12/03-3/31/06	Atrazine Modeling
Administered by the TSSWCB	$2,208,446	5/12/03-3/31/06	E.V. Spence Salt Cedar Project
USDA – Agricultural Research Service	$99,246	5/12/03-3/31/06	Leaf Beetle Demonstration
Brazos River Authority	$190,815	5/12/03-3/31/06	Bosque Watershed Coordinator
Total:	**$5,513,600**		

In addition to the grant received in 2003, the 319 Grant has been utilized to assist in the implementation of a number of TMDLs (i.e. North Bosque), Initiatives (i.e. Atrazine Initiative), and Programs (i.e. Poultry WQMP Program) as described in following sections.

WATER QUALITY MANAGEMENT PLAN (WQMP) PROGRAM

In 1993, the Texas Legislature passed Senate Bill 503 that directed the TSSWCB to implement Water Quality Management Plans (WQMPs) in Texas. The agency has implemented more than 6000 WQMPs since the inception of the program.

The WQMP Program is administered from five Regional Offices around the state. A poultry program specialist supports the WQMP Program out of a home office in East Texas. The Regional Offices are:

- Dublin Regional Office
- Hale Center Regional Office
- Harlingen Regional Office
- Mount Pleasant Regional Office
- Wharton Regional Office
- Poultry Program Office (Nacogdoches)

A WQMP is a site-specific conservation plan developed through (and approved by) SWCDs for agricultural or silvicultural lands. The plan includes appropriate land treatment practices, production practices, management measures, technologies or combinations thereof. The purpose of WQMPs is to

achieve a level of pollution prevention or abatement determined by the TSSWCB, in consultation with local soil and water conservation districts, that is consistent with state water quality standards.

The TSSWCB selected requirements for a WQMP based on the criteria outlined in the *Field Office Technical Guide (FOTG)*, a publication of the United States Department of Agriculture's Natural Resources Conservation Service (NRCS).

Nutrient management must be included if nutrients are applied. If an animal feeding operation is involved (such as an unpermitted dairy), a WQMP will be planned with practices that individually or in combination with other practices will properly manage animal wastes. Waste utilization will be considered when agricultural wastes are applied. These WQMPs also have subcomponents for irrigation waters, erosion control, and are flexible enough to cater to a wide range of operating systems.

Agricultural and forestry landowners may enter into these cooperative agreements with their local district to control nonpoint source pollution from their operations. While the decision to develop a plan is voluntary, landowners have many reasons to do so. These plans provide for landowners to use best management practices in their operations to protect their most precious agricultural resources by controlling erosion, conserving water, and protecting water quality. In addition, certified plans have the same legal status as Texas Commission on Environmental Quality (TCEQ) point source pollution permits, without having to go through that agency's regulatory process. Landowners may also receive financial incentives to help pay for implementing these plans.

It should be noted that the certified plans only have the same legal status as a TCEQ point source permit. An animal feeding operation that is required by law to operate within the confines of a water quality permit issued by the TCEQ cannot participate in the TSSWCB program.

Water Quality Management Plans are especially useful for animal feeding operations. Depending on their size, animal feeding operations may be regulated by TCEQ as a point source or are unregulated and eligible for the TSSWCB's voluntary program. Generally, these feeding operations are classified according to the number of animals they have, calculated as "animal units"; however, TECQ has adopted rules that provide if you have or exceed a certain number of animals, you will be regulated Animal feeding operations with more than the number of animals listed in TCEQ rules must apply for a permit. Most animal feeding operations in Texas are not large enough to require a permit, which makes this program critical to protecting Texas' water quality.

In developing the Water Quality Management Plan, the TSSWCB, SWCDs, and the USDA Natural Resources Conservation Service (NRCS) provide technical assistance to help the landowner meet the criteria of the plan. A plan establishes practices and installations on the farm that adhere to best management practices specific for that area. The various installations that a plan calls for depend on the operation. A farm may include a combination of cropland, dairy cows, poultry, hogs or cattle.

These plans may also include erosion control measures such as terraces or grass waterways; or they may address nutrient management to help landowners avoid over-fertilizing their land, or over-applying animal waste. Although a plan will take into consideration each farm's unique components, all WQMPs generally attempt to control erosion, conserve water, and protect water quality.

Upon TSSWCB certification of a WQMP, a landowner may apply for a financial incentive that will help pay for implementing the plan. Local districts have varying rates for sharing the cost of plan

implementation, however cost-share may not exceed 75% with a maximum $10,000 grant limit per plan. Landowners receiving financial incentive have approximately three years to implement the provisions of the WQMP.

The TSSWCB allocates money to local districts for financial incentives based on whether the area has impaired water bodies as determined by TCEQ, or if the TSSWCB had previously designated it as a priority. Most of these financial incentives were appropriated from General Revenue funds. Some plans received financial incentives from federal funds. State appropriations provided to local districts in FY04 amounted to $2,171,740.00 to carry out a WQMP cost-share program in their district.

In addition to certifying WQMPs to ensure that they help abate nonpoint source pollution, the TSSWCB monitors WQMPs to ensure they are properly implemented. Each year, the TSSWCB conducts status reviews on a minimum of 10% of the plans. Additional technical assistance may be offered to a landowner when a WQMP is found noncompliant. In the unlikely case that the landowner does not achieve compliance with the WQMP, the TSSWCB may decertify the plan.

During FY03, the WQMP Program was administered from the TSSWCB office in Temple. The staff reductions in the FY04 budget made it necessary for the program to be reorganized and the Regional Offices are now administered from the Harlingen Regional Office. Additionally, plan certification authority was shifted from the Temple headquarters to each regional office. This change is already expediting the certification process and reducing postage expenditures, while maintaining the integrity and standards of the program.

The last adjustment involved the complaint process, which was also administered out of the headquarters office during FY03. Headquarters office no longer has an individual to do complaint inspections and all complaints are investigated from the appropriate Regional Office.

Through the third quarter of FY04 the following had been accomplished: (1) 867 water quality management plans were certified; (2) 373 cost-share applications were processed; (3) 99.7% of the total cost-share allocation (of $1,946,001.00) was obligated. All five Regional Offices conducted their required evaluations effective through the program cycle of FY01. The evaluation period for the next round of cost-share allocations for FY-05 will include the fiscal years 98-02.

Considering the changes that have occurred for FY04, the WQMP Program is operating exceptionally well. For the first quarter of FY04, all performance measure goals were met and all challenges have been addressed in a reasonable and proficient manner.

POULTRY WATER QUALITY MANAGEMENT PLAN (WQMP) INITIATIVE

In 1994, the Texas State Soil and Water Conservation Board (TSSWCB) began assisting poultry operations with the establishment of the Northeast Texas - Senate Bill 503 Cost-share Area. Since 1994, over $300,000 of WQMP Program funding has been provided annually to six soil and water conservation districts (SWCDs) in Northeast Texas to address animal feeding operations (AFOs).

In 1995, the TSSWCB initiated three Clean Water Act, §319(h) projects to demonstrate composting as a means for dead bird disposal, buffer strips, and proper land application of poultry litter. In 1996, the TSSWCB expanded its efforts by initiating a composting and marketing project. This effort to promote

the installation of composters and other means of mortality management on poultry farms resulted in accelerated WQMP development.

In 1997, the Texas Legislature passed Senate Bill 1910, which required all poultry farms to have a TCEQ-approved method of dead bird disposal. The law took effect in March 1998. However, the rules were not adopted and did not take effect until fall 1999. It was during this time that requests for poultry-WQMPs significantly increased due to pursuit of cost-share for mandated mortality management. This activity intensified the TSSWCB's poultry initiative.

In response to water quality concerns and the initiation of TMDL development in the Big Cypress/Lake O' the Pines watershed in 1999, the TSSWCB began using §319 funds for cost-share in the area in addition to the Senate Bill 503 cost-share funds already directed to the watershed. Due to rising concerns in nearby watersheds, the TSSWCB also included the Sam Rayburn and Toledo Bend Reservoir watersheds in its initiative in 1999. The TSSWCB expanded the poultry initiative again in 2001 to the Gonzales area.

All together, the TSSWCB has focused $5.3 million in §319 funding and over $3 million in state funding to assist poultry operations with abating NPS pollution in Texas. Nine of the sixteen §319-funded projects are ongoing. Another $2.9 million in USDA-NRCS Environmental Quality Incentives Program (EQIP) funding was obligated to assist poultry producers in Northeast Texas and Gonzales County from 2000 to 2003.

The 77th Legislature, in 2001, passed Senate Bill 1339, which requires all poultry facilities in Texas to operate in accordance with a WQMP certified by the TSSWCB. The review and certification process assures the plan includes appropriate practices, management measures and schedules of implementation.

This law provides a staggered-schedule of deadlines by which each producer, depending on their initial date of operation, must have requested the development of a WQMP from their soil and water conservation district. Any poultry facility constructed after January 1, 2002 is required to have a WQMP prior to the receipt of any birds.

Since the effective date of the new law, the TSSWCB has identified 1462 total poultry farms, of which 1300 (89%) currently operate under a certified WQMP. The TSSWCB estimates that 12 farms need to request a WQMP before January 2005 and 68 farms before January 2008. The other estimated 82 farms have already requested a plan and those plans are in various stages of development. However, there is an ongoing challenge of identifying new poultry farms continually being constructed and put into production and locating other poultry farms not yet identified.

Producers who fail to submit an application for a WQMP before the appropriate submission date for their specific facility are subject to enforcement actions by the Texas Commission on Environmental Quality. In FY04, new WQMPs have been developed for 123 poultry farms and 86 existing WQMPs have been revised for poultry farms. In addition, status reviews have been conducted on 247 poultry farms in Texas, which is approximately 19% of poultry farms with a WQMP.

Since 2001, seven soil and water conservation district (SWCD) technicians have been employed under Federal Clean Water Act §319 contracts to develop WQMPs in poultry producing areas. Those contracts will expire in 2004. An eighth §319 district technician was hired in 2003 in the Shelby SWCD to conduct WQMP status reviews and that contract will expire in 2005. As a result, beginning in FY 2005, there will

be a substantial reduction of available staff for developing new plans, conducting status reviews, and revising plans as needed.

Beginning in fiscal year 2004, a TSSWCB Poultry Program Specialist was assigned to a field location in Nacogdoches County to assist with all aspects of the Poultry WQMP Program. Nearly 500 (34%) of the estimated 1462 poultry farms in Texas are located in Nacogdoches and Shelby counties. Approximately 82 (17%) of the existing farms in those two counties still need a WQMP developed. The specialist will also assist other soil and water conservation districts with poultry WQMP development as needed.

State appropriated grants in FY04 were made to the Hopkins-Rains SWCD and the Nacogdoches SWCD in East Texas for technical assistance in the Poultry WQMP Program for $250,000.00. State appropriated grants made to entities other than local districts in FY04 were two grants made to the USDA-Agricultural Service (ARS). The first grant was for $114,989.00 to conduct an investigation of nutrient loss mechanisms from land-applied poultry litter. The second grant was for $80,000.00 to conduct an investigation of additional tasks involving nutrient loss mechanisms from land-applied poultry litter.

The following is a summary of the status of farms that we are currently aware of:

Date Due	Status	Number of Farms
1/1/2002	Not Signed-up	0
1/1/2002	Plans in Progress	3
1/1/2003	Not Signed-up	0
1/1/2003	Plans in Progress and/or Signed-up	2
1/1/2005	Not Signed-up	12
1/1/2005	Plans in Progress and/or Signed-up	12
1/1/2008	Not Signed-up	68
1/1/2008	Plans in Progress and/or Signed-up	28
Unknown	Not Signed-up	0
Unknown	Plans in Progress and/or Signed-up	30
N/A	Turkey Farms Not Signed-up	7 (6 of 7 assumed to be out of business)
N/A	Turkey Farms In Progress	0
Subtotal:		162
Unknown	Additional Gonzales area farms*	30

* One integrator in the Gonzales area has indicated approximately 30 farms that are or have been wet operations and required permits will now convert to dry operations and will need WQMPs.

NORTH BOSQUE RIVER WATERSHED INITIATIVE

In 1998 the North Bosque River (Segments 1226 and 1255) was included in the Texas CWA §303(d) List of impaired waters under narrative water quality standards related to nutrients and aquatic plant growth. In February 2001, the TCEQ adopted *Two Total Maximum Daily Loads for Phosphorus in the North Bosque River* for segments 1226 and 1255.

The TMDLs concluded that:

- Use of the two segments was "impaired" by high levels of nutrients.
- The nutrient of principal concern was soluble reactive phosphorus (SRP)
- Reduction of SRP of approximately 50% would reduce the potential for problematic algal growth in the river.
- The major controllable sources of nutrients in the North Bosque River basin were municipal wastewater treatment plants (WWTPs) and NPS pollution from dairy waste application fields (WAFs).

In December 2002, both the TCEQ and the TSSWCB adopted *An Implementation Plan for Soluble Reactive Phosphorus in the North Bosque River Watershed*. The four basic elements of phosphorus control identified in the plan were:

- Phosphorus application rates in WAFs.
- Reduced phosphorus diet for dairy cows to reduce the phosphorus content of dairy wastes.
- Removing approximately half of the dairy-generated manure from the North Bosque River watershed for use or disposal outside of the watershed.
- Effluent limits on phosphorus for municipal wastewater treatment plants.

Before and since the adoption of the Implementation Plan, the TSSWCB TMDL Program has been actively working on numerous projects and programs designed to assist the agricultural community in meeting its recommendations and requirements. All of the efforts explained in the following discussions are in support of the TMDL and the Implementation Plan.

State appropriated grants to entities other than local districts for projects in the North Bosque River were made to one project. That project was for $15,000.00 to Keith Broumley as financial assistance to conduct a Comprehensive Nutrient Management Plan to support the North Bosque River Anaerobic Digester Demonstration Project.

DAIRY MANURE EXPORT SUPPORT (DMES) PROGRAM

The TSSWCB initiated the Dairy Manure Export Support (DMES) program in an effort to bring an innovative solution to the problem of elevated phosphorus levels in the North Bosque and Leon River Watersheds. The DMES program offers financial incentives to commercial manure haulers to support the transport of raw manure from dairy farms in the North Bosque and Leon River Watersheds to commercial composting operations. The raw manure is then improved through a composting process so it may be put to beneficial use. Entities such as the Texas Department of Transportation and municipalities, as well as agricultural producers and the general public are some of the target purchasers of the composted product. The TCEQ, TSSWCB's partner in the overall regional program, provides rebates to these target

purchasers to facilitate the development of a sustainable market. The export of this surplus manure (and the nutrients contained in the manure) will help address concerns regarding potential NPS water quality impacts associated with traditional on-farm land application of manure in the region.

Overall DMES program management is controlled through the TSSWCB. The TSSWCB has contracted everyday activities to the Texas Institute for Applied Environmental Research (TIAER) at Tarleton State University. In April 2001, TIAER subcontracted many aspects of the program to the Foundation for Organic Resources Management (FORM), which was replaced by imanage, LLC in July 2003. Through FORM, and later imanage, LLC, the DMES program has been managed at the local level through a DMES program office located in Stephenville, Texas. The TSSWCB has contracted TIAER to manage the program through August 31, 2004.

Participation requirements for dairies include being located in the North Bosque and/or Leon River Watersheds. Dairies must have (or have applied for) a TSSWCB–certified Water Quality Management Plan or a TCEQ water quality permit and an approved nutrient utilization plan. Each composting facility must be compliant with all state regulations regarding compost facilities and be approved for participation in TCEQ's Composted Manure Incentive Project (CMIP). Manure haulers must attend a workshop convened by the TSSWCB's contractor and obtain a vendor number from the Texas State Comptroller and authorize direct deposit.

Individual hauling jobs are coordinated through manure haulers that make arrangements with dairies and commercial composting operations. A manure hauler completes a job notification form, which is then submitted to the DMES office for approval. Once approval is received, the manure hauler performs the work and submits an invoice to the DMES office, which is signed by a representative of the dairy, accompanied by load tickets signed by a representative of the composting facility, and a scale ticket for each load. The DMES office prepares semi-monthly reimbursement request summaries, has them approved by TIAER, and then submits them to the TSSWCB for payment. Because the TSSWCB is using Clean Water Act §319(h) funding from the U.S. Environmental Protection Agency (EPA), the TSSWCB must then request that the funds be released from EPA to the TSSWCB. The TSSWCB then issues reimbursements via direct deposit to the manure haulers.

The initial target amount of manure to be exported from dairy farms participating in the program was 300,000 tons during a 36-month program period from October 2000 through October 2003. Hauling of dairy manure under the DMES program has proceeded at a much faster rate than originally anticipated. In fact, as of October 31, 2003, over 685,500 tons of manure, or more than double the target amount, has been hauled under this program. The TSSWCB anticipates the DMES Program will continue through August 2004 and possibly beyond.

COMPREHENSIVE NUTRIENT MANAGEMENT PLAN (CNMP) PROGRAM

The TSSWCB Comprehensive Nutrient Management Planning (CNMP) Program was developed in response to a control measure recommended in the *Implementation Plan for the North Bosque River Total Maximum Daily Load for Soluble Reactive Phosphorus*. The implementation plan recommended that dairy producers in the watershed voluntarily develop and implement a Comprehensive Nutrient Management Plan (CNMP). This program is confined to the North Bosque River Watershed by rule.

A CNMP is a resource management plan containing a grouping of conservation practices and management activities which, when combined into a conservation system, will help ensure that both

agricultural production goals and natural resource concerns dealing with nutrient and organic by-products and their adverse impacts on water quality are achieved. A CNMP incorporates practices to utilize animal manure and organic by-products as a beneficial resource. The TSSWCB selected requirements for a CNMP based on the TCEQ rules and regulations required for permitted and unpermitted animal feeding operations and criteria outlined in the *Field Office Technical Guide (FOTG)*, a publication of the United States Department of Agriculture's Natural Resources Conservation Service (NRCS). The FOTG represents the best available technology and is already tailored to meet the needs of soil and water conservation districts all over the nation. To be certified by the TSSWCB, the local SWCD, the producer, and the local NRCS Field Office must approve a CNMP. However, no state or federal regulations currently require a facility to develop a CNMP.

The TSSWCB is currently working with the owner of a dairy operation that was selected as the site of an anaerobic manure digester demonstration project in the North Bosque River Watershed. The overall project, managed by a group of entities including the Brazos River Authority, the TECQ, and the Texas Farm Bureau, is designed to reduce the amount of phosphorus present in the dairy's wastewater. The TSSWCB's contribution to the project is to provide the dairy with financial assistance from §319 grant funds toward the development of a CNMP so that the operation can appropriately utilize the reduced phosphorus wastewater, protect the natural resources on location, and be consistent with the recommendations of the Implementation Plan. The CNMP is currently under development by a third-party technical service provider with the assistance of the TSSWCB and NRCS.

Water Quality Management Plan (WQMP) Program Implementation in the North Bosque Watershed

The regional offices are maintained around the state for the purpose of providing technical assistance to rural landowners interested in conserving natural resources and protecting water quality. The Dublin Regional Office is located within the North Bosque River Watershed, and has been providing service to the area since 1993. Since September 1, 2002 (three months prior to the adoption of the TMDL Implementation Plan), the TSSWCB has certified 40 WQMPs covering more than 8,500 acres in the watershed. As stated in the TMDL Implementation Plan, the TSSWCB is interested in working with SWCDs to get as many acres of land as possible under the scope of a nutrient management plan (nutrient management plans are required components of WQMPs that cover land receiving either commercial fertilizer or animal waste). The previously mentioned 40 WQMPs include more than 4,900 acres now within the scope of a nutrient management plan. They also include more than 2,400 acres scheduled for cover by improved vegetation under landowner/operator plans. Vegetation helps to prevent NPS pollution by absorbing nutrients and preventing erosion that can carry nutrients with sediment into the North Bosque River stream system.

CLEAN WATER ACT, §319(H) GRANT PROJECTS IN THE NORTH BOSQUE WATERSHED

Clean Water Act §319(h) Grant Program funding has been used extensively to assist in the development and implementation of the North Bosque River TMDL. Currently, seven CWA §319(h) are actively assisting the implementation of the North Bosque River TMDL. These are briefly described below.

Technical and Financial Assistance to Dairy Producers and Landowners of the North Bosque River Watershed Within the Cross Timbers and Upper Leon SWCDs

This project provides technical and financial assistance to landowners toward the development and implementation of certified WQMPs and CNMPs for any agricultural operations that land-apply animal waste. The project employs three SWCD technicians for developing WQMPs for unpermitted animal feeding operations (AFOs) or non-AFO farms, and for reviewing the technical completeness of CNMPs developed by third-party technical service providers on permitted dairy CAFOs.

The project also includes cost-share funding. The cost-share, applied through the TSSWCB rules and requirements, encourages producers to properly implement the best management practices (BMPs) included in the WQMPs and CNMPs. The project also includes funding for water quality monitoring, carried out by TIAER, at the micro-watershed level. This methodical monitoring scheme is being performed to determine the nutrient reductions that are achieved through the implementation of BMPs within the watershed.

Funding is also provided for the SWCDs and TIAER to conduct "micro watershed producer council" meetings with the owners of the WQMPs and CNMPs once a sufficient number of the plans have been implemented. Topics such as the overall TMDL progress, the latest water quality monitoring results, and how they relate to the impact of WQMP and CNMP implementation are intended to be presented to the councils.

Development of a Bacterial Source Tracking Library and Assessment of Bacterial Sources Impacting Lakes Waco and Belton

This project is a component of a larger statewide bacterial source-tracking (BST) program. This project includes Parsons Engineering Science, Inc., Texas Farm Bureau, Brazos River Authority, City of Waco, TSSWCB, and the Environmental Protection Agency as project partners.

Protection of our water resources is one of the most significant environmental challenges of the new millennium. Nonpoint sources (NPS) of pollution, especially from agricultural activities, can greatly impact water quality. One key component in effectively implementing a NPS pollution management program is the identification and assessment of sources of bacterial contamination, especially for impaired waterbodies on the Texas Clean Water Act §303(d) list. Proper evaluation of these sources is needed to develop microbial total maximum daily loads (TMDLs) and appropriate best management practices (BMPs). This information may also be useful to properly assess risk in contact recreation, as many waterborne pathogens causing human illness do not colonize nonhuman hosts.

Fecal coliform bacteria have extensively been used as an indicator of fecal pollution and the potential presence of other pathogenic microorganisms in water. It has been established that the fecal coliform bacterium *Escherichia coli* (*E. coli*) is more closely associated with fecal pollution than other fecal coliform bacteria, which may normally reside and multiply in the environment.

E. coli is a common inhabitant of animal and human intestines and recent studies have shown that isolates from humans and various host animals (e.g. cattle, chickens, and pigs) may differ genetically and phenotypically. Use of genetic and biochemical tests may allow the original host animal to be identified,

referred to as bacterial source tracking (BST). Molecular tools appear to hold the greatest promise for BST, providing the most conclusive characterization and level of discrimination for isolates. Of the molecular tools available, ribosomal ribonucleic acid genetic fingerprinting (ribotyping) and pulsed-field gel electrophoresis (PFGE) are emerging as versatile and feasible BST techniques. A phenotypic characterization method, antibiotic resistance analysis, also has the potential to identify the human or animal origin of isolates. However, reference "libraries" of bacterial genetic fingerprints and antibiotic resistance profiles are needed to correctly identify the source of bacteria isolated from environmental water samples.

There are projects in progress at Lake Waco and Lake Belton, the San Antonio River and tributaries, Oyster Creek and a project planned for the greater Houston area. These projects have two general objectives: (1) to assess the water quality with regard to the relative contributions of fecal bacteria from bovine, human, and other animal contributions to the water bodies and (2) to develop local libraries, genetic and biochemical that can be used in determining the animal or human nonpoint fecal source contamination of surface water.

Field Validation of the Texas Phosphorus Index

This project is intended to determine the effects of selected soil properties in the North Bosque and Leon River Watersheds for measuring and predicting phosphorus runoff, as well as comparing and correlating different soil test and soil solution soluble phosphorus extracts to runoff phosphorus. The project, carried out by Texas Cooperative Extension, will also attempt to validate and/or modify the Texas Phosphorus Index as a predictive tool for classification of field sites relative to phosphorus loss potential. The information attained from these field studies will help validate and improve the Texas Phosphorus Index. With this information and additional studies similar to this across the state, quantitative assessments to predict the amount of phosphorus in runoff utilizing the Texas Phosphorus Index can be estimated. The runoff analyses will help determine the form of phosphorus, and whether it is mainly solution soluble or suspended. This will enable identification of appropriate best management practices to reduce the amount of phosphorus leaving fields, thus decreasing the amount of phosphorus reaching surface water resources. The Texas Phosphorus Index is an integral part of effective nutrient management planning.

Improving Water Quality by Developing, Implementing, and Field Testing Innovative Methods

This project, conducted by Texas Water Resources Institute, provides funding for the testing of new technologies designed for reducing water pollution associated with animal production systems, principally dairies. The focus is restricted to reducing phosphorus in dairy waste streams. Four technologies have already been selected, while the overall project is designed to accommodate two additional technologies yet to be determined. The four selected technologies include an electrocoagulation system, a polymer enhanced solids separation system, an aeration with microbubblers system, and a geotextile solids separation system. These technologies are tested and utilized in municipal waste treatment systems, dredging and sediment recovery from streams, and the oil and gas industry but they have not been adequately tested or demonstrated for treating animal waste. This is especially true for testing these technologies for the reduction of phosphorous from land applied liquid dairy manure in the Bosque River Watershed.

Edge-of-Field Monitoring of a
Wastewater/Manure Management System Demonstration

This project will monitor and evaluate the phosphorus reduction capabilities of a state-of-the-art methane digester system installed on a dairy facility in the North Bosque River Watershed operating in conjunction with a TSSWCB-certified Comprehensive Nutrient Management Plan (CNMP). A multi-agency group including the Brazos River Authority, Texas Farm Bureau, and TCEQ is carrying out the overall methane digester project. Edge-of-field monitoring, funded by the TSSWCB and conducted by the Texas Institute for Applied Environmental Research, was initiated to determine the level of phosphorus reduction associated with the wastewater that has undergone treatment using methane digester technology and applied in accordance with the dairy's CNMP. Monitoring will occur on the liquid application fields used by the dairy operator to determine nonpoint source pollution (NPS) reductions.

Establishment of a Watershed Coordinator for the North Bosque River Watershed

The objectives of this project include identifying all pollution prevention projects and measures that are currently underway in the watershed, tracking the progress of these projects and measures, tracking rules and regulations that affect operations of entities in the watershed, reviewing water quality data for trend identification, providing opportunities for efficient and effective use of resources, and communicating through regularly scheduled stakeholder group meetings. Another objective of this project is to identify areas within the watershed that may not have received the attention necessary to reduce potentially detrimental impacts to water quality. The TSSWCB has contracted the Brazos River Authority to provide overall coordination of the project.

Athletic Field Topdressing as a Commercial Market for Compost from Dairy Manure

Composting of dairy manure and exporting of the compost out of the watershed have been advanced as a solution to the problem of the impaired water quality in the North Bosque River Watershed. The composting facilities have been established and the infrastructure to move manure from dairies to these facilities is in place. A high-volume market is needed that can afford the production and transportation costs of the compost. This project, carried out by the Leon-Bosque Resource Conservation and Development Council, seeks to develop that market by demonstrating the value of compost as a component to a premium blend of compost and sand.

TEXAS ATRAZINE INITIATIVE

BACKGROUND

Atrazine is a pre-emergent herbicide primarily used to control broadleaf and grassy weeds in corn and sorghum. Since it went on the market in 1958, it has become the most widely used herbicide in the United States.

It is classified as a restricted use herbicide due to its potential for groundwater contamination. Inconsistent with its restricted use designation, it is commonly found in *Weed and Feed* and other home and garden products, making it not only an agricultural issue, but an urban issue as well.

Atrazine, a chlorinated triazine herbicide, acts as a photosynthesis inhibitor. It is nontoxic to humans, having about the same toxicity as table salt. It has no adverse reproductive effects. It's not teratogenic or mutagenic. Only low levels of bioaccumulation may be expected in fish organs. It is nontoxic to birds and only slightly toxic to aquatic life.

Atrazine is, however, a possible human carcinogen (Class C). Due to this, a Maximum Contaminant Level (MCL) of 3 µg/L (micro-grams per liter) has been established for finished drinking water. A micro-gram would equate to 0.000,001 grams per liter of water.

Atrazine is persistent in the environment, having a field half-life of 60 days. It is moderately soluble in water and is not removed from drinking water by conventional water treatment methods. Activated carbon, ozonation, cation exchange, and UV treatment methods must be used to remove it from drinking water.

Because of its persistence, solubility, and widespread use, Atrazine is commonly found in surface water. A 1993-95 US Geological Survey (USGS) study of pesticides in urban and agricultural streams in the Trinity River Basin found Atrazine in 100% of samples from both sources. This suggests that Atrazine is both an agricultural and urban problem. The concentrations in the agricultural streams were, however, greater than the concentrations in the urban streams.

DEVELOPMENT OF THE TEXAS APPROACH

In Texas, testing of Atrazine in drinking water began in 1993. However, the method used only had a detection limit of 3 µg/L, and little detection was observed. In 1996, the state began using EPA (testing) Method 525.2, which has a much lower detection limit 0.065µg/L. Once the state began using this new (testing) method, numerous detections began appearing around the state in both surface and groundwater supplies. Between 1996 and 1999, Atrazine was detected in 69 water supplies around the state. In addition to drinking water monitoring, some raw water monitoring for Atrazine has been performed, but it has been infrequent and project specific.

In 1995, due to a detection of 9.6 µg/L in Marlin City Lake, the Marlin City Manager contacted the TCEQ-Source Water Assessment and Protection (SWAP) team for assistance. The City of Marlin and TCEQ-SWAP team then approached EPA for federal assistance. In 1996, Marlin City Lake was designated an EPA Region 6 Pilot Source Water Protection Program project.

To deal with the growing number of Atrazine detections around the state, TCEQ-SWAP formed an "Atrazine Steering Committee" in 1997 (later, the committee was renamed the "Surface Water Protection Committee). Committee membership consisted of the TSSWCB, the TDA, Texas A&M University, Novartis, the USDA- NRCS, the USDA-Agricultural Research Service (ARS), the Texas Farm Bureau, the Brazos River Authority, and municipal representatives. The committee's goal was to develop a strategy to address the numerous detections of Atrazine in drinking water in a proactive manner through BMP implementation and public education.

In 1998, nine reservoirs were listed as impacted by Atrazine on the §303(d) List. One of these, Aquilla Reservoir was listed as impaired by Atrazine. The running annual average at the Aquilla Water Supply District's treatment plant for the second quarter of 1997 through the first quarter of 1998 was 4.0 µg/L, violating the drinking water standard (3 µg/L) and triggering the listing of Aquilla Reservoir as an impaired water of the state. The other eight reservoirs, Lake Bardwell, Joe Pool Lake, Marlin City Lake,

Lake Lavon, Lake Tawakoni, Richland Chambers Lake, Lake Waxahachie, and Big Creek Lake, were listed as threatened by Atrazine.

Following the listing of these reservoirs on the §303(d) List, the state began developing and implementing an initiative to remediate the Atrazine threats and impairments consisting of:

- Performing a standard TMDL in Aquilla Reservoir
- Building on the Source Water Protection Program in Marlin City Lake
- Performing targeted monitoring and implementing BMPs in the 7 threatened lakes

IMPLEMENTATION OF THE ATRAZINE INITIATIVE

The Aquilla TMDL was initiated in November 1998. It was a cooperative effort among the Texas Agricultural Experiment Station (TAES), Texas Cooperative Extension (TCE), Texas Department of Agriculture, Texas A&M University, TCEQ, TSSWCB, NRCS, Novartis, and local stakeholders. Over $500,000 was provided for the Aquilla and Marlin projects through PPG funds, §§319(h), 604(b), Source Water Protection, TCEQ GR, and in-kind contributions. Stakeholder committees were formed for the Marlin and Aquilla projects. Training for pesticide applicators, demonstration of BMPs, and TEX*A*SYST was provided by the TAES in cooperation with the TCE. The Texas Agricultural Experiment Station conducted monitoring in the Aquilla and Marlin Watersheds. SWAT modeling of the watershed was completed as an in-kind contribution effort of NRCS, TDA, and TCEQ. Economic analyses of the implementation of BMPs on farms in both watersheds were also completed by the TAES.

The TMDL for Atrazine in Aquilla Reservoir was adopted by the TSSWCB and TCEQ in March 2001, and was revised in June 2002 in response to comments from the Environmental Protection Agency (EPA). The implementation plan was approved by the TSSWCB and TCEQ in January 2002. Region 6 of the EPA approved the TMDL on October 30, 2002.

The TMDL stated that a load reduction of approximately 25% would result in attainment of the water quality standards.

The environmental target set for measuring the success of the TMDL implementation plan is a running annual average concentration of Atrazine *in the reservoir* that does not exceed 3.0 µg/L for two consecutive years.

The TCEQ and the TSSWCB had the leadership roles for implementing the project, as well as for developing the TMDL. The key groups involved in implementing the plan at the local watershed level were agricultural producers and city governments. Regionally, the key partners were Aquilla Water Supply District, the Woodrow-Osceola Water Supply Corporation, the Hill County Appraisal District, and the Hill County-Blackland Soil and Water Conservation District. The Texas Cooperative Extension (TCE) and the Texas Department of Agriculture (TDA) also implemented aspects of the project. The U.S. Army Corps of Engineers, the federal agency that owns and operates the lake, also cooperated.

Since the source of the Atrazine was known, some activities were initiated before the TMDL and its implementation plan were complete. In 1998, the NRCS established the Aquilla EQIP Priority Area. From 1998-2003, the NRCS obligated over $2 million to implement BMPs in the Aquilla Watershed. Along with the EQIP funding, the TSSWCB initiated a §319 project in 1999 to provide cost-share and technical assistance through the Hill County-Blackland SWCD to encourage the implementation of BMPs in the Aquilla Watershed to reduce sediment and pesticide runoff from corn and sorghum farms.

In 1999, Aquilla area farmers formed a Producers Atrazine Action Committee. Meetings featured speakers on water quality topics and training on pesticide application. The Producers Committee developed a list of BMPs recommended for use in the watershed, and composed a questionnaire to document adoption of BMPs over time. In addition, the committee met with pesticide dealers to increase dealers' awareness of the problem and to gain their assistance. The practice to incorporate herbicides into the soil upon application was already adopted by about 33% of area producers at the end of the first year, and reached nearly 100% by the third year of the project.

In the seven threatened lakes, targeted monthly monitoring was conducted near water supply intakes to verify the level of impairment and provide baseline data for future actions. Texas A&M University conducted the analysis. Water quality sampling conducted by the TCEQ was used to measure the effectiveness of the practices. In addition, Syngenta, a private corporation that markets Atrazine, continued its voluntary pesticide-monitoring program with the area's public water suppliers.

Partners in the program include the TSSWCB, the TCEQ, the TDA, the TPWD, the Texas Agricultural Experiment Station (TAES), the TCE, and the federal Natural Resources Conservation Service (NRCS). Several other agencies and interested parties were involved, including the EPA, the Brazos River Authority, the Sabine River Authority, the Aquilla Water Supply District, and Syngenta (formerly Novartis), a private corporation.

Monitoring was completed in August 2003, with the exception of Bardwell and Lake Waxahachie. The City of Waxahachie continues to sample these lakes to obtain the needed 36 monthly samples.

Technical and financial assistance was provided to corn and sorghum farmers to implement BMPs in the seven lakes watersheds through 12 TSSWCB §319 projects funded by EPA, over $4.1 million in cost share and TA was provided to farmers through SWCDs. Demonstrations, monitoring, and modeling were also conducted through TSSWCB 319 projects to support and evaluate the implementation of BMPs in the seven threatened lakes. Through the TSSWCB 319 program, almost $4.6 million has been obligated to address the Atrazine issues in the seven threatened lakes.

In 2000, the Little River was listed as threatened by Atrazine. In response to this listing, the TSSWCB initiated two 319 projects in 2002 to provide technical and financial assistance to the area to address this threat. These efforts were continued in 2003 with the provision of additional funding. Over $1.1 million in 319 funding has been provided to encourage BMP implementation.

ATRAZINE INITIATIVE RESULTS – A SUCCESS STORY

As a result of the Atrazine Initiative, Atrazine concentrations in Aquilla Reservoir have been reduced to safe levels. Between 1998 and 2003, Atrazine concentrations in Aquilla Reservoir have been reduced by approximately 60%, to amounts lower than those required for treated drinking water. There have also been no Atrazine concentrations higher than the allowable amount at the Aquilla Water Supply District's drinking water treatment plant. Monitoring will be continued on a quarterly schedule to ensure that Atrazine concentrations remain at a safe level.

Monitoring by TCEQ indicates that Atrazine concentrations in five of the seven lakes have been reduced to levels that warrant their reclassification from threatened. Those lakes are now attaining their uses as a source for treated drinking water.

The other two lakes, Bardwell and Waxahachie Reservoirs, are still being monitored. However, trends in those two reservoirs indicate that they, too, will no longer be classified by the TCEQ as threatened within the next six months.

COASTAL MANAGEMENT PROGRAM

BACKGROUND

The Texas Coastal Management Program (CMP) was created to coordinate state, local, and federal programs for the management of Texas coastal resources. The program brings in federal Coastal Zone Management Act (CZMA) funds to Texas state and local entities to implement projects and program activities for a wide variety of purposes. The Coastal Coordination Council (CCC) administers the CMP and is chaired by the Commissioner of the GLO. It comprises the chair or appointed representatives from the TPWD, the TCEQ, the TWDB, TxDOT, a member of the Texas State Soil and Water Conservation Board, a member of the RRC, the director of the Texas A&M University Sea Grant Program and four gubernatorial appointees. These members are selected to provide fair representation for all aspects concerning coastal issues.

The Council is charged with adopting uniform goals and policies to guide decision-making by all entities regulating or managing natural resource use within the Texas coastal area. The Council reviews significant actions taken or authorized by state agencies and subdivisions that may adversely affect coastal natural resources to determine their consistency with the CMP goals and policies. In addition, the Council oversees the CMP Grants Program and the Small Business and Individual Permitting Assistance Program.

The Coastal Zone Act Reauthorization Amendments (CZARA), Section 6217, requires each state with an approved coastal zone management program to develop a federally approvable program to control coastal nonpoint source pollution. The Texas CCC appointed a Coastal Nonpoint Source Pollution Control Program workgroup to develop this document. The National Oceanic and Atmospheric Administration and the U.S. Environmental Protection Agency jointly administer the program. In Texas, two agencies hold primary responsibility for the program's development and implementation: the Texas Commission on Environmental Quality and the TSSWCB.

Section 6217 calls for implementation of management measures (§6217(g) measures or (g) measures) that will control significant nonpoint sources of pollution to coastal waters. Six source categories are addressed by these measures: agriculture, forestry, urban and developing areas, marinas, wetland/riparian areas, and hydro modification. States can use voluntary approaches combined with existing state authorities to achieve implementation of management measures. However, if the voluntary mechanisms are not effective, states must have backup enforcement authorities in place to ensure that management measures are implemented.

Texas requested exclusion from the program for silviculture, rangeland, and dry land row crop agriculture from the northern boundary of the Coastal Bend Bays and Estuaries Program Area southward to the northern boundary of the Arroyo Colorado Watershed. The silviculture and rangeland exclusions were not allowed.

Texas submitted the Texas Coastal Nonpoint Source Pollution Control Program to EPA and NOAA in December 1998. In October 2000, Texas submitted the Texas Coastal NPS Control Program 15-year Program Strategy and FY 2001-2005 Implementation Plan.

Final findings were issued by NOAA/EPA in July 2003, which contained conditional approval of the program. The agricultural and silvicultural portions of the program were approved without conditions. In these findings, the dry land row crop exclusion was denied. Texas is collecting additional information to support the dryland row crop exclusion and will provide this to NOAA/EPA for further consideration.

CURRENT STATUS

The TSSWCB is responsible for implementing the agricultural and silvicultural management measures of the program. The main mechanism we have for this is the State's cost-share program for implementing Water Quality Management Plans on farms and ranches through local soil and water conservation districts (SWCD). For over five years, more than $300,000 of state funds has been spent annually in the coastal zone to provide cost-share to implement approximately 80 Water Quality Management Plans.

In addition to state funding, Texas receives §6217 funding from NOAA for implementing the Coastal Nonpoint Source Pollution Control Program. For the past several years, SWCDs in the Coastal Management Zone have received grants from NOAA's §6217 Implementation Funds to install agricultural management measures through the TSSWCB Water Quality Management Plan program. This has been very effective in expanding Texas' effort in carrying out the agricultural portion of its coastal nonpoint source program.

In March, NOAA issued final guidance for the program funds. As written, the guidance would no longer allow these funds to be used to implement agricultural best management practices on private lands unless a number of conditions are met. However, GLO is currently working with NOAA to determine what is needed to get approval of the NPS projects submitted by SWCDs in the coastal zone.

During the week of March 22, a team from NOAA, under the leadership of Chris McKay, visited Texas to evaluate the State's coastal management program. TSSWCB Executive Committee member (Richard Egg) and Council Member (Mr. Memo Benavides) had the opportunity to visit with the team and explain our program and how important it was for the CNP funds to continue to be used to implement management measures on private land.

The NOAA evaluation team also participated in the Coastal Coordination Council (CCC) meeting on March 22. TSSWCB Council member took the opportunity to again express concern over this change in the CNP guidance. Several other council members also supported the continued use of these funds on private land to implement BMPs. The CCC also approved the projects submitted for this program at its March meeting. This included funding (at a reduced level) for nine projects from SWCDs. These projects were submitted to NOAA in April for approval.

We are hopeful that NOAA will approve the projects, but we have no guarantees. In the meantime, our Water Quality Management Plan program in the coastal management zone continues.

Implementation of the silvicultural management measures in the coastal zone is through a CWA §319 grant from the TSSWCB to the Texas Forest Service.

INFORMATION TECHNOLOGY

LDAP DIRECTORY SERVICE

In January 2004, the TSSWCB brought a lightweight directory access protocol (LDAP) server online to provide a centrally maintained online directory of employee email address, job titles, and phone and fax numbers. LDAP is a standards-based service, and is easily accessible from all the mail clients in use at the agency. This service eliminates the need for employees to maintain individual contact lists for agency personnel and provides a convenient look-up service for retrieving contact information. This project was completed using open source software components resulting in no cost to the agency for software purchases, licensing, or support.

EXPANSION OF BROADBAND NETWORK CONNECTIVITY

During the early part of 2004, the TSSWCB upgraded the Internet connectivity of its field representatives, providing them with broadband connections for the first time. The need for additional bandwidth had become apparent in recent years as the field representatives increasingly rely on network connectivity to perform tasks electronically. Because of the remote locations of the field representative offices, the new connections use satellite technology and were arranged through the Texas Department of Information Resources with a new service provider for Texas agencies, Hughes Network Systems.

PC HARDWARE REPLACEMENT

During the early part of 2004, the TSSWCB replaced the laptop PCs for its field representatives. The replacement schedule is in keeping with the guidelines recommended by the Texas Department of Information Resources. Beyond the increased reliability of the new equipment, the new laptops provide the agency field staff with new capabilities that are important for their work – including CD-authoring capabilities for data storage and backups, and integrated wireless adapters configured for use at agency offices.

SMTP AUTHENTICATION SERVICE

In May 2004, the TSSWCB added SMTP authentication capability to its outgoing mail server. This service gives remote users on outside networks the ability to send mail through the TSSWCB mail server as if they were on an internal network. This provides considerable convenience to traveling employees and adds security to the outgoing mail as it can be scanned for spam and viruses at the TSSWCB server. SMTP authentication uses an encrypted user name and password to verify an employee's identity. This project was completed using open source software components resulting in no cost to the agency for software purchases, licensing, or support.

REMOTE ADMINISTRATION OF WORKSTATIONS

In May 2004, the TSSWCB began installing VNC client software on its PCs on an as needed basis. This software allows an administrator to login to a workstation from a remote location to perform system administration, troubleshooting, and other tasks. In the short time this has been deployed, this has service has already proven to be an effective and timesaving tool for agency employees. This project was completed using open source software components resulting in no cost to the agency for software purchases, licensing, or support.

FIREPROOF SAFES FOR REGIONAL OFFICES

In an incremental step in ongoing efforts to protect agency data, in May 2004 the agency began providing its regional offices with fireproof safes to store important program data. As more program data is now being housed at the regional offices, this step was needed to add an additional layer of protection to the agency's information assets.

FACILITY MONITORING ENHANCEMENT

In June 2004, agency staff configured and installed new monitoring equipment at the agency's main network operations facility. This equipment provides continuous monitoring of environmental conditions at the site and provides alerts to the appropriate staff as conditions warrant. With the increased monitoring, the IT services of the agency are better protected from disruptions due to cooling equipment failures or other environmental factors.

PUBLIC INFORMATION /EDUCATION REPORT FY04

GENERAL OVERVIEW

The purpose of the public information/education program is to provide leadership and coordination of information/education programs relating to the agency and district programs, services, operations and resources. The TSSWCB prepares and disseminates public information relative to the agency and district functions, programs, events and accomplishments for the public and to farmers and ranchers. TSSWCB staff coordinates seminars, conferences, workshops, displays at trade shows and training for district directors and district bookkeepers, conservation professionals, youth groups and other entities. Staff provides guidance to districts with their own individual information/education programs as well as regional and state information/education programs initiated by districts. Staff prepares and disseminates press releases, news stories and printed promotional products. The TSSWCB monitors the use of the publications and use of information. Staff represents the agency as needed with various information/education groups and entities. The TSSWCB has a cooperative agreement with the Association of Texas Soil and Water Conservation Districts to provide assistance and help coordinate district involvement and participation with Association's Information/Education Committee and its programs.

2004 SUMMER TEACHER WORKSHOPS

Several teacher workshops are held each summer for teachers interested in conservation and natural resource issues. The workshops are held in various parts of the state in cooperation with the TSSWCB. The Texas Environmental Education Advisory Committee to the Texas Education Agency approves the content of these workshops, sponsored by the TSSWCB. As an approved Environmental Education Professional Development Provider teachers are able to get credit hours toward their required continuing education units (CEUs), while experiencing nature and the outdoors.

One workshop was recently held at the Lyndon B. Johnson State Historical Park, sponsored by the Pedernales SWCD, June 8-9, 2004. It was attended by 60 teachers. Another workshop was held June 16-18, 2004 in Orange County. Forty-eight teachers attended and toured various agricultural industries and demonstrations.

Lower Sabine-Neches SWCD will host a Teachers Workshop in China, Texas at the Texas A&M Rice Experiment Station on July 8, 2004 from 8:00am-3:00pm. The workshop includes: Rice research, including fertilization, insect management, water management and rice varieties. There will be a demonstration of rice cooking qualities.

2004 TEXAS CONSERVATION AWARDS PROGRAM

Each year, the Texas State Soil and Water Conservation Board and the Association of Texas Soil and Water Conservation Districts co-sponsor the Texas Conservation Awards Program to recognize and honor those who dedicate themselves and their talents to the conservation and wise use of renewable natural resources. The 2004 Awards Program marked the 26th year of this joint program.

Local districts select their outstanding individuals as winners and submit them by mid-February each year for regional judging. Those selected as regional winners are honored each May at regional Awards Banquets. From these regional winners, a state winner is selected for the Outstanding Conservation Districts, Outstanding Conservation Teacher, Poster Contest, and the Essay Contest. These individuals are invited to the Annual State Meeting for recognition.

The conservation awards program provides competition and incentives to expand and improve conservation efforts, resource development, and increase the wise utilization of renewable natural resources. As a result, soil and water conservation districts, and both rural and urban citizens of Texas are benefited.

Soil and water conservation districts may enter their local recognition honorees in any of 10 categories (East Texas has an additional category of Forestry Conservationist), depending on appropriateness to the category description. For the youth of the district, there is also a poster and essay contest.
The categories, a brief explanation and the names of first place winners for this year are:

OUTSTANDING CONSERVATION DISTRICT

Awarded to the winning soil and water conservation district in each area for the most outstanding program during the past fiscal year.

2004 Winners were:
Parmer SWCD #140
Bandera SWCD #229
Victoria SWCD #346
Upshur-Gregg SWCD #417
Little River-San Gabriel SWCD #508

RESIDENT CONSERVATION RANCHER

Awarded to the outstanding resident conservation rancher in each area. They **must** be a resident of the district, perform ranching activities within the district and be a cooperator with the district from which the entry was submitted. The rancher may have other business or professional interests.

2004 Winners were:
B. R. Carter; Hockley County SWCD #129
Jack Brown; Highland SWCD #210
Guerra Cattle Company; Starr County SWCD #332
Sam Harris; Rusk SWCD #447
Oren Soules; Mills County SWCD #554

RESIDENT CONSERVATION FARMER

Awarded to the outstanding resident conservation farmer in each area. They **must** be a resident of the district, perform farming activities within the district and be a cooperator with the district from which the entry was submitted. The farmer may have other business or professional interests.

2004 Winners were:
David and Keith Wied ; Lynn County SWCD #119
Phil Colburn; Runnels SWCD #232
A. J. Richter; Wharton County SWCD #342
Dr. Angie Patton; Upshur-Gregg SWCD #417
Kirk Shepherd; Young SWCD #539

ABSENTEE CONSERVATION FARMER/RANCHER

Awarded to the outstanding absentee conservation farmer or rancher in each area. They **must** reside **outside** the district, but operate farming or ranching activities within the district and be a cooperator with the district from which the entry was submitted. The person may have other business or professional interests.

2004 Winners were:
Chanas Ranch; Llano County SWCD #233
Eduardo (Lalo) Hinojosa; Loma Blanca SWCD #328
Crooked Tree Ranch; Lower Clear Fork of the Brazos SWCD #551

WATER QUALITY MANAGEMENT PLAN

Awarded to the outstanding Water Quality Management Plan recipient in each area. They **must** be a district cooperator who has a district approved Water Quality Management Plan and has incorporated water quality into their farming or ranching activities and soil and water conservation work.

2004 Winners were:
Dieter Issacson; Parmer SWCD #140
James Wilde; Tom Green SWCD #248
Blue Creek Ranch Co. (Bill Oehmigs); Wharton County SWCD #342
David Barringer; Nacogdoches SWCD #401
E. C. Crump; Little Wichita SWCD #560

ESSAY CONTEST

Essays (topic: "The Living Soil") are to be submitted to local soil and water conservation districts for local judging. Each local district will judge the entries and submit three essays to the TSSWCB for competition on the area level. Plaques will be awarded to 1st, 2nd and 3rd place winners on the area level and state winners will be selected from the area winners. This contest is open to students, 18 years and younger, and does not jeopardize Texas University Interscholastic League eligibility.

2004 Winners were:
Heather Posey, (Home Schooled), Rotan, TX – Upper Clear Fork SWCD #165
Beth Ballew, Brackettville High School, Brackettville, TX – West Nueces-Las Moras SWCD #236
Whitney Wehmeyer, Poth High School, Poth, TX – Wilson County SWCD #301
Ashlie Black, Fairfield High School, Fairfield, TX – Freestone County SWCD #424
Chance Propps, Benjamin High School, Benjamin, TX – Wichita-Brazos SWCD #544

POSTER CONTEST

Posters should address one of the following subjects: "Food for the Future" or "The Living Soil". Posters shall be submitted to local soil and water conservation districts for local judging. Each local district will judge the entries and submit three posters to the TSSWCB for competition on the area level. Plaques will be awarded to the 1st, 2nd and 3rd place winners on the area level and state winners will be selected from the area winners. This contest is open to students, 12 years and under, and does not jeopardize Texas University Interscholastic League eligibility.

2004 Winners were:
Rebekah Pollack, Mary Allen Elementary School, Stratford, TX – Sherman County SWCD #159
Ben Hunt, San Saba Elementary, San Saba, TX – San Saba SWCD #250
Jessica Gerdes, Industrial Junior High School, Lolita, TX – Jackson SWCD #336
J. D. Gattis, Rusk Intermediate School, Rusk, TX – Cherokee County SWCD #427
Peyton Stovall, Graham Junior High School, Graham, TX – Young SWCD #539

BUSINESS/PROFESSIONAL INDIVIDUAL

Awarded to the outstanding man or woman in the business community who has rendered the most unselfish conservation service in each area. Representatives of the news media (radio, television, newspaper, magazines, etc) who contribute to or provide support for conservation shall also be considered eligible for this award. (This award is not for individual conservation practices or individuals who, because of employment, assist with or augment the work of the soil and water conservation district.)

2004 Winners were:
Jim Steiert; Tierra Blanca SWCD #143
Llano National Bank; Llano County SWCD #233
Wayne Hasting; Peerless Equipment Co; Frio SWCD #325
Ed Smith; Dozer and Backhoe Service; Freestone County SWCD #424
H. L. "Larry" Campbell; Farm Manager and Consultant; Limestone-Falls SWCD #501

CONSERVATION TEACHER

Awarded to the outstanding teacher of conservation in schools in each area. Teachers of all grade levels are eligible for this award.

2004 Winners were:
Maureen Broughton; 4th Grade Science Teacher; LBJ Elementary School; Pedernales SWCD #218
Millie Schaer; 3rd Grade; Blessing Elementary School; Matagorda County SWCD #316
Johnny Coleman; High School Vo-Ag Teacher; Ore City High School; Upshur-Gregg SWCD #417
Joe Ray Burkett; Agriculture Science & Technology; Jacksboro High School

WILDLIFE CONSERVATIONIST

Awarded to the outstanding wildlife conservationist in each area. They **must** be a district cooperator who has incorporated wildlife conservation into their farming and ranching activities.

2004 Winners were:
Wildcat Mountain Ranch; Coke County SWCD #219
Kennon Cantley; Gonzales County SWCD #338Willie D. Pitts; Panola SWCD #448
Stasney & Sons LTD; Fannin County SWCD #520

CONSERVATION HOMEMAKER

Awarded to the outstanding conservation homemaker in each area. The homemaker and or family **must** own or operate a farm or ranch, be a district cooperator and have knowledge of the conservation programs being implemented.

2004 Winners were:
Gail Turnipseed; Hockley County SWCD #129
Doris Block; Tom Green SWCD #248
Nancy Tom; Atascosa County SWCD #307
Linda Rhea; Red River County SWCD #423

CONSERVATION DISTRICT EMPLOYEE

Awarded to the outstanding soil and water conservation district employee who exhibits a degree of knowledge, skill, ability, and leadership that clearly results in superior job performance far above the basic requirements of the position.

2004 Winners were:
Wanda Blackburn; Upper Llanos SWCD #225
Angie Osborne ; Davy Crockett-Trinity SWCD #404
Wanda Carter; Parker County SWCD #558

FORESTRY CONSERVATIONIST (AREA IV ONLY)

Awarded to the outstanding forestry conservationist for the most outstanding farm forestry conservation program in the commercial forest areas of Texas. They **must** be a district cooperator or an individual who

has implemented conservation practices on their land and has done missionary work for conservation and the district program.

2004 Winner was:
Nolan Alders; Nacogdoches SWCD #401

SOIL & WATER STEWARDSHIP PUBLIC SPEAKING CONTEST

The Soil & Water Stewardship Public Speaking Contest is open to high school FFA students interested in conservation. The contest is aimed at broadening students' interest and knowledge of conservation and how individuals must depend on and take care of the world around them for survival. The contest is coordinated through the Texas FFA, with contests at the local, area and state level. Local winners compete in the 10 state FFA areas and those winners compete for the state title. Each year the state winner is invited to the Annual State Meeting of District Directors to deliver their presentation.

To prepare for the contest, students are to consult with their Agriculture Science teacher and work with their local soil and water conservation district. Students are encouraged to visit with their local SWCD to find out more about conservation practices in their area.

This project is a partnership between the Texas FFA, the Vocational Agriculture Teacher's Association of Texas, The Texas State Soil and Water Conservation Board, and the Association of Texas Soil and Water Conservation Districts.

The State Winner of the Soil and Water Stewardship Public Speaking Contest is invited to attend the Annual State Meeting each year and asked to deliver their winning address. This year's winner will be selected July 13, 2004 at the State FFA Convention in the Fort Worth Convention Center as the area winners compete.

WILDLIFE ALLIANCE FOR YOUTH

The Wildlife Alliance for Youth (WAY) contests offer opportunities at the local district level for 4-H and FFA students to demonstrate their knowledge of the outdoors on wildlife habitat and management, wildlife laws, sportsmanship and other factual information on wildlife. The program offers scholarships to contest winners. It is a powerful tool for students to become involved in conservation and obtain an appreciation for wildlife.

Agscience students who compete in the WAY Contest, first acquire the foundational knowledge and skills for this event through the Agscience 381 - Wildlife and Recreation Curriculum. The WAY contests address the following nine subject areas in Wildlife and Recreation Management: Wildlife Plant Identification; Wildlife Plant Preferences; Wildlife Biological Facts; Wildlife Habitat; Habitat Management; Game Laws; Hunter and Boater Safety; Compass and Pacing; and Identification Techniques. Students should have an understanding of these subject areas before they compete.

The WAY contests are held in the five Texas State Soil and Water Conservation Board areas. Area IV (East Texas) holds their contest in October, which is the only contest held in the fall. Area V (North Central), Area I (Panhandle), Area II (West Texas) and Area III (South Texas) all hold their contests in April. Each team is certified to the area level by their local SWCD. The WAY State Contest was held at

the Welder Wildlife Refuge in Sinton, May 11, 2004 this year. Over 200 high school students participated in the competition.

The TSSWCB is the lead agency in sponsoring and organizing the contests. The Association of Texas Soil and Water Conservation Districts, USDA- Natural Resources Conservation Service, Texas Parks and Wildlife Commission, Cooperative Extension service, and the Texas Education Agency, along with local soil and water conservation districts (SWCD), all partner in the success of the youth organization.

STATE WOODLAND CLINIC AND CONTEST

The Texas State Woodland Clinic and Contest is held annually in the month of April. It is a joint effort between local soil and water conservation districts, Stephen F. Austin University School of Forestry and the NRCS-USDA. The 2004 contest was held in Nacogdoches at the East Texas Plant Materials Center on April 20th. There were 184 contestants present

It is an opportunity for 4-H and FFA youth to demonstrate their expertise in different aspects of forestry management and skills in identification of needed practices and management techniques. Competition is between teams composed of four members representing either a 4-H Club or a FFA Chapter. Prior to the state contest several local districts conduct contests for 4-H Clubs and FFA Chapters within their district and the surrounding area.

The contest began in the late 1950s and was initiated by local SWCDs and timber industry personnel to develop forestry and woodland curriculum in schools in the commercial timber area of the state (East Texas Piney Woods). The clinic and contest have experienced widespread popularity and now has participation from outside of the commercial timber area on a regular basis. The state participation level for teams averages around 55 teams per year, with the vast majority of teams being composed of FFA Chapters. Winners at the state level are eligible to participate in the four states regional woodland contest held each May in one of four states. Texas, Louisiana, Arkansas and Oklahoma host the regional contest on a rotational basis.

REGIONAL WOODLAND CONTEST

The four states regional woodland contest is sponsored by soil and water conservation districts in each of the four states with program and technical support provided by USDA-NRCS and Resource Conservation and Development (RC&D), state organizations and industry personnel. The soil and water conservation districts in Texas hosted the first four states or southern regional woodland contest in 1984.

An attempt was made to expand this clinic and contest to a national level. However, that effort was dropped due to the wide diversity of forestry species and management practices across the nation.

Each state is allowed to send a maximum of six teams to the regional contest. Each state has a competition that determines the six teams from that state that may enter in the regional contest. Those teams may be composed of individuals representing either a 4-H Club or an FFA Chapter.

This year the regional clinic and contest was held in Texas at the Red River Army Depot in Hooks on May 7, 2004. There were 23 teams consisting of four individuals (most with an alternate member) competing. Teams present represented FFA Chapters and 4H Clubs from Texas, Oklahoma, Arkansas, and Louisiana.

CONSERVATION EDUCATION VIDEO LIBRARY

The Association of Texas Soil and Water Conservation Districts has established and updates a conservation related video library that is maintained by TSSWCB staff on their behalf for the benefit of local districts and educators. Currently there are over 180 conservation-related videos in the library available to districts and teachers. No rental fees are assessed to those wishing to borrow the videos from the library. Borrowing privileges are for a length of two weeks and must be returned upon date specified by the librarian. Videos can be ordered through your local soil and water conservation district or by contacting the TSSWCB. So far in FY04, 83 videos have been loaned to various districts and teachers across the state.

CONSERVATION EDUCATION MODELS

The Nonpoint Source Pollution Watershed Flow Model and the Groundwater Flow Model allow students to understand how water supplies can become polluted from nonpoint sources through interactive demonstrations.

NONPOINT SOURCE (NPS) POLLUTION WATERSHED FLOW MODEL

The NPS model is a hands-on representation of a landscape that allows students to understand how water sources can become polluted from nonpoint sources. The plastic landscape structure has industrial, undeveloped, agricultural, and residential and roadway features complete with individual houses, trees, cars, tractors and cows. When "rain" falls on the model, the runoff flows into a city lake. Using various products to add color to the water, the model demonstrates how potential pollutants are picked up by run-off.

The model is a layout of a watershed that includes all the factors that may contribute to polluting our water. (Urban features such as: factories, parking lots, construction sites, lawn chemicals and golf courses and Rural features such as: forested land, dairies, feedlots, cropland and pastureland). To demonstrate how each type of potential pollutant can enter a water body Kool-Aid and cocoa are used to color "runoff". Grape Kool-Aid is used to represent pollution from factories and oil from parking lots and roads. Orange Kool-aid represents pollution from lawn chemicals, golf courses, and cropland and pastureland chemicals. Cocoa is used to represent pollution from construction sites, forested land, dairies and feedlots. The Kool-aid and Cocoa are sprinkled on the model in the areas that represent each type of pollutant. Once all the pollutants are sprinkled on the model a spray bottle with water is use to represent rainfall. As the pollutants get wet and start to runoff the students can see how the water carries them to the streams and into the lake where we get our drinking water. Once all the pollutants have run into the lake the students can see how these factors have the potential to make surface waters unattractive and unsafe. This demonstration leads to a discussion about how to protect the water quality and prevent our water from looking like the model.

GROUNDWATER FLOW MODEL

This model shows a cross-section of soil layers with a lake, a lagoon, and several wells represented. It uses a vacuum pump to make the water move through the soil layers and injection dyes to help visualize the flow of groundwater though soil and demonstrates how pollutants can travel in groundwater. The model demonstrates both percolation and the movement of groundwater due to pumping. Accompanied

by an instructional video with tips on the setup, presentation and cleanup, the model is useful and easy to use.

PUBLIC INFORMATION AND EDUCATION PROGRAM TRANSITION

During FY03, the Public Information and Education Department consisted of four full-time employees. The TSSWCB FY04 Public Information and Education Program appropriations were eliminated from the budget, resulting in the loss of the four full-time employees that were in the department.

Because our conservation program is a voluntary program, education and information concerning the availability, value, and need for soil and water conservation is an important tool for contributing to continuing participation and support for the program. To maintain a reasonable level of outreach and assist local districts with their planned programs, our agency has reorganized in a manner that provides for the public information and education program to be coordinated through one employee who is also assigned Human Resource responsibilities. As needed, other staff assists in carrying out program activities.

BRUSH CONTROL PROGRAM

The TSSWCB's Brush Control Program is designated to enhance water availability by removing water-depleting brush and trees, such as cedar and mesquite, which have invaded much of the state's cattle grazing land. In 1985, the Legislature directed the TSSWCB to administer the program entailing the development of management strategies and the designation of areas where brush control is most needed.

In 1999, the Legislature appropriated $9 million to the TSSWCB for financial incentives to landowners who adopted Water Quality Management Plans and would participate in a Brush Control Pilot Project in the North Concho River Basin.

State appropriated grants made to entities other than a local district was made to the Upper Colorado River Authority in the amount of $60,000.00 to conduct North Concho River Pilot Brush Control Program monitoring and paired watershed evapotranspiration studies.

The current status of all projects is as follows:

NORTH CONCHO

The North Concho Watershed project was initiated September 1, 1999. It is approximately 953,000 acres in size with approximately 432,000 acres of brush.

Cost share funding in the amount of $13,253,950 has been made available in the North Concho River watershed.

Status of Project:

- 370,715 acres were under contract to be treated at a cost of $13,173,242
- $80,708 remained to be obligated (<1%)
- 238,700 acres had been treated at a cost to the State of $9,837,267
- There are 143 active contracts, 57 completed contracts, 200 total contracts.

PEDERNALES

The Pedernales Watershed project was initiated September 1, 2002. It is approximately 815,000 acres in size with approximately 200,000 acres of brush. It is divided into 35 sub-basins with 13 sub-basins currently eligible for cost-share.

Cost share funding in the amount of $4,001,199 has been made available in the Pedernales River Watershed.

Status of Project:

- 59,708 acres were under contract to be treated at a cost of $3,987,521.
- $13,678 remained to be obligated (<1%)
- 45, 750 acres had been treated at a cost to the State of $2,987,224
- There are 116 active contracts, 170 completed contracts, 286 total contracts

TWIN BUTTES

The Twin Buttes Watershed project was initiated September 1, 2002. It is approximately 2,423,854 acres in size with approximately 1,015,407 acres of brush. It is divided into 69 sub-basins with 28 sub-basins currently eligible for cost-share.

Cost share funding in the amount of $8,295,950 has been made available in the Twin Buttes Watershed.

Status of Project:

- 182,091 acres were under contract to be treated at a cost of $8,287,506
- $8,444 remained to be obligated (<1%)
- 124,854 acres had been treated at a cost to the State of $5,961,440
- There are 136 active contracts, 51 completed contracts, 187 total contracts.

LAKE BALLINGER

The Lake Ballinger Watershed project was initiated September 1, 2002. It is approximately 148,849 acres in size with approximately 54,485 acres of brush.

Cost share funding in the amount of $484,886 has been made available in the Lake Ballinger Watershed.

Status of project:

- 8,570 acres were under contract to be treated at a cost of $406,901
- $77,985 remained to be obligated (16%)
- 5,676 acres had been treated at a cost to the State of $263,332
- There are 45 active contracts, 20 completed contracts, and 65 total contracts.

OAK CREEK LAKE

The Oak Creek Lake Watershed project was initiated September 1, 2002. It is approximately 151,532 acres in size with approximately 96,616 acres of brush.

Cost share funding in the amount of $1,095,765 has been made available in the Oak Creek Lake Watershed.

Status of Project (May 14, 2004):

- 18,261 acres were under contract to be treated at a cost of $832,468
- $263,297 remained to be obligated (24%)
- 12,624 acres had been treated at a cost to the State of $603,687
- There are 18 active contracts, 14 completed contracts, 32 total contracts.

PECAN CREEK

The Pecan Creek Watershed project was initiated September 1, 2002. It is approximately 60,400 acres in size with approximately 43,000 acres of brush. It is divided into 13 sub-basins with all sub-basins eligible for cost-share.

Cost share funding in the amount of $323,764 has been made available in the Pecan Creek Watershed.

Status of Project:

- 12,195 acres were under contract to be treated at a cost of $323,589
- $175.00 remained to be obligated (<1%)
- 10,095 acres had been treated at a cost to the State of $232,774
- There are 3 active contracts, 2 completed contracts, 5 total contracts.

MOUNTAIN CREEK LAKE

The Mountain Creek Lake Watershed project was initiated September 1, 2002. It is approximately 18,500 acres in size with approximately 10,458 acres of brush.

Cost share funding in the amount of $95,542 has been made available in the Mountain Creek Watershed.

Status of Project:

- 2,034 acres were under contract to be treated at a cost of $88,728
- $6,814 remained to be obligated (7%)
- 1,440 acres had been treated at a cost to the State of $70,033
- There are have 4 active contracts, 6 completed contracts, 10 total contracts.

CHAMPION CREEK LAKE

The Champion Creek Lake Watershed project was initiated September 1, 2002. It is approximately 115,737 acres in size with 40,347 acres of brush.

Cost share funding in the amount of $906,932 has been made available in the Champion Creek Watershed.

Status of Project:

- 17,481 acres were under contract to be treated at a cost of $865,202
- $41,730 remained to be obligated (<5%)
- 10,786 acres had been treated at a cost to the State of $504,606
- There are 55 active contracts, 21 completed contracts, 76 total contracts.

SPRING CREEK / DOVE CREEK PROJECT

The Spring and Dove Creek Watershed project was initiated September 1, 2002. It is approximately 163,000 acres in size with 77,468 acres of brush. It is divided into 23 sub-basins with 3 sub-basins eligible through the Spring and Dove Creek Special Project.

Cost share funding in the amount of $1,146,275 has been made available in the Spring/Dove Watershed.

Status of Project:

- 40,479 acres were under contract to be treated at a cost of $1,146,275
- $0.00 remained to be obligated (0%)
- 18,958 acres had been treated at a cost to the State of $649,329
- There are 16 active contracts, 5 completed contracts, 21 total contracts.

PECOS/UPPER COLOARADO SALT CEDAR

Cost share funding in the amount of $410,710 has been made available in the Pecos/Upper Colorado Watersheds.

Status of Project:

- 6,354 acres are under contract to be treated at a cost of $298,477
- $112,233 remained to be obligated (<27%)
- There are 22 active contracts, 40 completed contracts, 62 total contracts
- 3,468 acres have been treated at a cost to the State of $180,678.

OTHER ACTIVITIES

TSSWCB Staff completed 9 brush control plans/contract amendments for landowners

TSSWCB Staff completed 62 brush control certifications for landowners

TSSWCB Staff prepared brush control reports/updates for Runnels, Middle Clear Fork, Coke County, Nolan, Tom Green, and Eldorado-Divide SWCDs

TSSWCB Staff provided information on State Brush Control Program to the following groups: Canadian River Authority, Texas Farm Bureau, Texas Wildlife Association, West Central Texas Water Municipal Water District, and the U.S. Fish and Wildlife Service.

Assisted Angelo State University with Wildlife contest.

Completed and mailed State Brush Control Program Survey

State Brush Control Program Tour with the Texas Water Development Board, Representative Scott Campbell, Representative Rick Hardcastle, and City of San Angelo representatives.

319 Salt Cedar Project meetings with Workgroup, NRCS, CRMWD, USFW and TAES to discuss endangered species, contract, and Plan of Operation

Review funding request with Texas Department of Agriculture

Team Tamarisk – 17 state joint task force meeting to develop strategy for control of Salt Cedar.

TEXAS STATE SOIL AND WATER CONSERVATION BOARD
FY04 OPERATING BUDGET VERSUS EXPENDITURE REPORT
FOR THE TIME PERIOD SEPTEMBER 1, 2003 - JUNE 21, 2004

A. GOAL: To Protect and Enhance the Farm and Grazing Land of Texas by Ensuring that a Quality Conservation Program is Available and Being Applied in All Soil and Water Conservation Districts and that Funds are Being Used Effectively to Increase Water Yield in Targeted Areas

STRATEGY 1.

Provide Program Expertise, Technical Guidance and Assistance, and Financial Assistance on a Statewide Basis in Managing and Directing Conservation Programs

Object of Expense	Budget	Expended	Percent Exp.	Balance
Salaries and Wages	$ 503,855.00	$ 420,824.90	83.52%	$ 83,030.10
Administrative and Operating Expenses	$ 393,675.00	$ 310,378.04	78.84%	$ 83,296.96
Programs				
Director Mileage and Per Diem	$ 325,000.00	$ 180,993.33	55.69%	$ 144,006.67
Conservation Assistance Grant (Matching Funds)	$ 916,364.00	$ 839,344.11	91.60%	$ 77,019.89
Technical Assistance Grant	$ 1,036,241.00	$ 940,098.96	90.72%	$ 96,142.04
Subchapter H Water Conservation Grant	$ 115,000.00	$ -	0.00%	$ 115,000.00
Strategy Subtotal	$ 3,290,135.00	$ 2,691,639.34	81.81%	$ 598,495.66
Full Time Equivalent Positions:	12			

STRATEGY 2.

Provide Financial and Technical Assistance to Implement Brush Control Projects to Increase Water Yields in Targeted Watersheds

Object of Expense	Budget	Expended	Percent Exp.	Balance
Salaries and Wages	$21,992.00	$11,455.34	52.09%	$10,536.66
Grants to Districts	$267,086.00	$120,993.28	45.30%	$146,092.72
Administrative and Operating Expenses	$7,500.00	1920.43	25.61%	$5,579.57
Programs				
Brush Control Monitoring & Feasibility	$60,000.00	$15,152.00	25.25%	$44,848.00
Brush Control Cost-Share	$4,462,426.87	$1,709,522.79	38.31%	$2,752,904.08
Strategy Subtotal	$4,819,004.87	$1,859,043.84	38.58%	$2,959,961.03
Full Time Equivalent Positions:	1			

TEXAS STATE SOIL AND WATER CONSERVATION BOARD
FY04 OPERATING BUDGET VERSUS EXPENDITURE REPORT
FOR THE TIME PERIOD SEPTEMBER 1, 2003 - JUNE 21, 2004

B. GOAL: To Effectively Administer a Program for the Abatement of Nonpoint Source Pollution Caused by Agricultural and Silvicultural Uses of the State's Soil and Water Resources

STRATEGY 1.

Implement and Update as Necessary a Statewide Management Plan for the Control of Agricultural and Silvicultural Nonpoint Source Water Pollution

Object of Expense	Budget	Expended	Percent Exp.	Balance
Salaries and Wages	$184,182.00	$132,912.84	72.16%	$51,269.16
Administrative and Operating Expenses	$162,834.00	$46,403.49	28.50%	$116,430.51
Programs				
319(h) Federal Grants to Cooperating Entities	$3,851,987.00	$2,299,054.35	59.68%	$1,552,932.65
Strategy Subtotal	$4,199,003.00	$2,478,370.68	59.02%	$1,720,632.32
Full Time Equivalent Positions:	5			

STRATEGY 2.

Develop and Implement Pollution Abatement Plans for Agricultural and Silvicultural Operations in Identified Problem Areas

Object of Expense	Budget	Expended	Percent Exp.	Balance
Salaries and Wages	$1,154,145.00	$807,665.01	69.98%	$346,479.99
Administrative and Operating Expenses	$427,778.00	$279,784.31	65.40%	$147,993.69
Programs				
Nonpoint Source Water Quality Management Plan Cost-Share Program (S.B. 503)	$2,171,740.00	$722,582.38	33.27%	$1,449,157.62
Poultry Water Quality Management Plan Program (S.B. 1339)	$218,828.00	$10,885.38	4.97%	$207,942.62
Strategy Subtotal	$3,972,491.00	$1,820,917.08	45.84%	$2,151,573.92
Full Time Equivalent Positions:	28			

TEXAS STATE SOIL AND WATER CONSERVATION BOARD
FY04 OPERATING BUDGET VERSUS EXPENDITURE REPORT
FOR THE TIME PERIOD SEPTEMBER 1, 2003 - JUNE 21, 2004

C. GOAL: Indirect Administration

STRATEGY 1.
Indirect Agency Administration

Object of Expense	Budget	Expended	Percent Exp.	Balance
Salaries and Wages	$282,865.00	$186,791.24	66.04%	$96,073.76
Administrative and Operating Expenses	$130,400.00	$120,579.07	92.47%	$9,820.93
Strategy Subtotal	$413,265.00	$307,370.31	74.38%	$105,894.69
Full Time Equivalent Positions:	7			
TOTAL OPERATING BUDGET	**$16,693,898.87**	**$9,157,341.25**	**54.85%**	**$7,536,557.62**
TOTAL FULL TIME EQUIVALENT POSITIONS:	**53**			

TEXAS STATE SOIL & WATER CONSERVATION BOARD

SEMI – ANNUAL REPORT

TO THE

GOVERNOR,
LIEUTENANT GOVERNOR,
AND
SPEAKER OF THE HOUSE

JANUARY 1, 2005

FORWARD

In response to S.B. 1828 passed by the 78th Texas Legislature in Regular Session, 2003, the Texas State Soil and Water Conservation Board presents this review of its programs and activities. S.B. 1828 added §201.028 to the Texas Agriculture Code to provide that the TSSWCB shall prepare and deliver to the Governor, the Lieutenant Governor, and the Speaker of the House of Representatives a report, not later than January 1 and July 1 of each year, relating to the status of the budget areas of responsibility assigned to the State Board including outreach programs, grants made and received, federal funding applied for and received, special projects, and oversight of water conservation district activities.

The FY05 Operating Budget versus Expenditures is attached to this report. Information on grants made to local districts and other entities is incorporated within the program section it involves. Federal grants received for the Clean Water Act are provided in that section.

The Texas State Soil & Water Conservation Board takes pride in the accomplishments and remarkable progress that have been made in soil and water conservation in this state. Often environmental successes are slow to be realized. We have realized and already reported one success story that involves reducing the level of Atrazine in several water bodies, particularly the Aquilla Reservoir in the Hill County-Blackland SWCD.

However, we recognize there remains a continuing challenge and an ongoing need to ensure our land has the capability to produce food and fiber for future Texans. Because of changes in land use, ownership, technology, and population growth, the need for soil and water conservation programs will remain critical. Texas has a finite number of acres to provide for the needs and desires of citizens and visitors, and this places an ever-increasing demand on agricultural land. Farmers and ranchers face complex decisions concerning the best ways to manage and utilize the land available to them.

We believe that soil and water conservation programs must remain dynamic as land uses change and technology improves to make some conservation practices more capable of meeting demands on soil and water resources. We also maintain the belief that the purpose of the soil and water conservation program is to promote the wise use of our renewable natural resources and provide for the conservation and enhancement of the soil and water resources of this state through and by the dynamic decisions of local soil and water conservation districts which promotes the use of each acre of land within its capabilities and treating it according to its needs.

From the beginning, the Texas State Soil and Water Conservation Board and local soil and water conservation districts have formed an organizational framework through which various complex governmental conservation programs are delivered to local landowners and operators. This relationship has successfully been utilized to disseminate sound management techniques and practices to maintain individual productive land uses to provide for the needs of present and future generations.

To the landowners of Texas, the individual soil and water conservation district directors, and the many agencies and organizations assisting and working with our programs, we offer our sincere thanks.

Table of Contents

	Page
Historical Background	5
Organization	7
Staff	7
Soil And Water Conservation Districts	9
Annual State Meeting Of Soil And Water Conservation District Directors	11
Director Mileage And Per Diem	11
District Technical Assistance Funds	11
District Sub-Chapter H Funds	11
District Conservation Assistance Program	12
Programs & Activities Supporting The TSSWCB	12
Total Maximum Daily Load (TMDL) Program	12
Clean Water Act, §319(h) Grant Program	13
Water Quality Management Plan (WQMP) Program	22
Poultry Water Quality Management Plan (WQMP) Initiative	24
North Bosque River Watershed Initiative	27
Dairy Manure Export Support (DMES) Program	28
Comprehensive Nutrient Management Plan (CNMP) Program	29
Water Quality Management Plan (WQMP) Program Implementation in the North Bosque Watershed	29
Clean Water Act, §319(h) Grant Projects in the North Bosque Watershed	30
Texas Atrazine Initiative	32
Background	32
Development of the Texas Approach	33
Implementation of the Atrazine Initiative	33
Atrazine Initiative Results – A Success Story	35
Coastal Management Program	35
Background	35
Current Status	36
Information Technology	37
Public Information /Education Report FY03	38
General Overview	38
2004 Summer Teacher Workshops	38
2004 Texas Conservation Awards Program	38
Outstanding Conservation District	39
Resident Conservation Rancher	39
Resident Conservation Farmer	39
Absentee Conservation Farmer/Rancher	39
Water Quality Management Plan	39
Essay Contest	40
Poster Contest	40
Business/Professional Individual	40
Conservation Teacher	40
Wildlife Conservationist	40

Conservation Homemaker	40
Conservation District Employee	40
Forestry Conservationist (Area IV only)	41
Soil & Water Stewardship Public Speaking Contest	41
Wildlife Alliance For Youth	41
State Woodland Clinic and Contest	42
Regional Woodland Clinic	42
Conservation Education Video Library	43
Conservation Education Models	43
Nonpoint Source (NPS) Pollution Watershed Flow Model	43
Groundwater Flow Model	44
Brush Control Program	44
TSSWCB FY04 Statement and Financial Statement	Atch 1

HISTORICAL BACKGROUND

In the early history of the United States, those involved in agriculture often did not consider the conservation of soil and water resources. Land was cleared and put into farm production. When the land quit producing at a profitable level, the farmers merely moved on to new land farther west and started the process over again. There was no need to be concerned with soil conservation, as there was a seemingly unlimited supply of virgin land waiting to be tilled. This process continued through the 1800s and into the early 1900s. With the outbreak of World War I, farmers in the Great Plains states were encouraged to break out native grassland to grow wheat and other foodstuffs to feed the nation and the world. As a result of these and other unwise management practices and the fact that the farmlands were experiencing long periods of drought, the 1930s produced some of the worst dust storms the nation had ever seen. Clouds of dust rolled across the plains states sending dust storms through the south and into the nation's capitol. At the same time, the nation was in the midst of a great economic depression. The federal government, seeking ways to put people back to work and encourage conservation, created the Civilian Conservation Corps and Soil Erosion Service. Through these mechanisms, demonstration projects were initiated to train technicians and to educate the public in ways to conserve soil resources. These programs were successful in putting people back to work, but lacked the local ties to establish lasting conservation programs.

One of the early day leaders in the national effort to control soil erosion was Hugh Hammond Bennett from North Carolina. After graduation from the University of North Carolina in 1903, Hugh Bennett took a job with the Bureau of Soils in the United States Department of Agriculture. Because of his experience, scientific knowledge and leadership ability, he was put in charge of the Soil Erosion Service when it was created in 1933. In 1935, P.L. (Public Law) 46 was passed creating the Soil Conservation Service within the U.S. Department of Agriculture and Hugh Bennett became the first Chief of the agency. He soon became internationally known for his accomplishments in conservation work.

With the help of Congressman Buchannan from Columbus, Texas, Hugh Bennett was able to persuade President Franklin Roosevelt that the soil resources of this nation were being wasted. He convinced the President that a Model Soil Conservation Act should be developed and sent to the governors of each state for passage by their state legislatures. The purpose of this Model Act would be to develop programs at the state and local level to control soil erosion.

In 1936, such a Model Act was sent to the governors with the endorsement of President Roosevelt. The Model Act, developed in Washington, was patterned after the Texas Wind Erosion Act, the Grass Conservation Acts in the Northern High Plains and certain water conservation district law.

In 1937 legislation was introduced in the Texas Legislature based on this Model Act. It is reported that as many as 25 different versions of this soil conservation law were considered before a final version was passed. There was much heated discussion of the proposed legislation. When the final version was adopted, the bill contained many undesirable features. The law would have set up Soil Conservation Districts automatically on a county basis and made County Commissioners Courts the governing body. A portion of the county tax was to be used to finance the program and county agricultural agents were to be the administrative officers.

A number of agricultural leaders from across the state had, by this time, become concerned about the newly passed legislation. It was their opinion that, if the responsibility for installing and maintaining conservation measures lay in the hands of the land owners, the control of such a program should also be

in their hands. As a result of these and other concerns, a group of landowners led by V.C. Marshall of Heidenheimer, Texas, convinced the Governor to veto the 1937 legislation.

Hard feelings among agricultural leaders resulted from the attempt to pass this soil conservation law. Under the leadership of Mr. Marshall, a concerted effort was made during the interim between legislative sessions to heal the old wounds and to put together a version of a law that would be generally accepted by the farmers and ranchers of Texas. Mr. Marshall organized a committee of leaders from across the state to promote the passage of a new Soil Conservation Law. He traveled many miles at his own expense seeking the views of agricultural leaders and promoting the idea of the Soil Conservation District Program.

The key points Mr. Marshall felt should be included in the new law were that (1) farmers and ranchers should determine whether or not a Soil Conservation District was needed and hold a local option election prior to the establishment of the district; (2) the program should be controlled by landowners; and (3) the Soil Conservation Districts should have no taxing authority or the power of eminent domain.

In 1939 the Texas Legislature passed H.B. (House Bill) 20 which incorporated those features and was the first Soil Conservation Law for the state. The law created the State Soil Conservation Board and allowed for the creation of the Soil Conservation Districts. Mr. Marshall was elected as the first Chairman of the Soil Conservation Board and later resigned to become the first Executive Director of the agency.

On April 30, 1940, the Secretary of the State issued Certificates of Organization for the first 16 Soil Conservation Districts paving the way for the program we now operate. Today, Texas has 217 local soil and water conservation districts that encompass more than 99% of the state.

As previously mentioned, the Model Act endorsed by President Roosevelt was in part patterned after the Texas Wind Erosion Act. Texas was already making attempts to address soil conservation as a result of the "Dust Bowl" days of the 1930s. The 44th Legislature in 1935 passed legislation authorizing the establishment of Wind Erosion Conservation Districts. This law provided for the creation of districts to "conserve the soil by prevention of unnecessary erosion caused by winds, and the reclamation of lands that have been depreciated or denuded of soil by reasons of winds." Although a number of Wind Erosion Control Districts were created, the passage of the Soil Conservation District Law in 1939 resulted in those districts becoming dormant.

In 1975, Governor Dolph Briscoe, by Executive Order, designated the TSSWCB as lead agency to assume the planning and management responsibility for control of agricultural and silvicultural nonpoint source pollution as required by the Federal Water Pollution Control Act.

In 1981 the 67th Legislature passed H.B. 1436, which for the first time codified the agricultural laws of Texas. Title 7, Chapter 201 of this code contains the portion pertaining to Soil and Water Conservation.

In 1985 the 69th Legislature passed S.B. 1083 creating a Brush Control Program in Texas and granting new powers and responsibilities, without funding, to the TSSWCB and Soil and Water Conservation Districts under Chapter 203 of the Agriculture Code. In 1999, the TSSWCB received its first appropriation in the FY00-01 biennium to control water-depleting brush and trees, such as cedar and mesquite. The program received $9.1 million to establish a pilot project in the North Concho Watershed.

In 1993, the 73rd Legislature passed S.B. 503 which named the TSSWCB the lead agency to address water quality issues relating to runoff from diffused, or nonpoint sources resulting from agricultural and forestry operations. In 1999, the Legislature expanded the TSSWCB's environmental mission and appropriated money to address water pollution from nonpoint sources under a separate, federally mandated program.

The leaders who framed the Texas Soil and Water Conservation Law in 1939 recognized that landowners and operators of private land constitute the basic resource for the conservation of our renewable natural resources. Without the support and willing participation of private landowners and operators in the development and implementation of soil and water conservation programs there is little hope of success. Local soil and water conservation districts led by farmers and ranchers who know the land and the local conditions and problems have the means to develop conservation plans that address each acre of land specific to its needs to solve or reduce the severity of its problems.

ORGANIZATION

Since inception, the TSSWCB has been governed by five board members, elected by delegates from each of five regions of the state's 217 local soil and water conservation districts. Elections occur annually at regional conventions of the local soil and water conservation districts, with members serving two-year staggered terms. However, with the enactment of S.B. 1828 by the 78th Legislature, two Governor appointees join the five elected board members to create a seven-member board. Currently the two Governor appointed positions remain unfilled. When appointed, the term of one member appointed by the Governor expires February 1 of each odd-numbered year, and the term of the other member appointed by the Governor expires on February 1 of each even-numbered year.

Elected State Board members must be 18 years of age or older; hold title to farmland or ranchland; and be actively engaged in farming or ranching. The Governor appointees must be actively engaged in the business of farming, animal husbandry, or other business related to agriculture and wholly or partly owns or leases land used in connection with that business; and may not be a member of the board of directors of a conservation district.

The State Board elects its own Chair and generally meets every odd month, unless specific programs or issues require more immediate action. The following list shows the current Board members and shows which State Board Region they represent.

Texas State Soil and Water Conservation Board

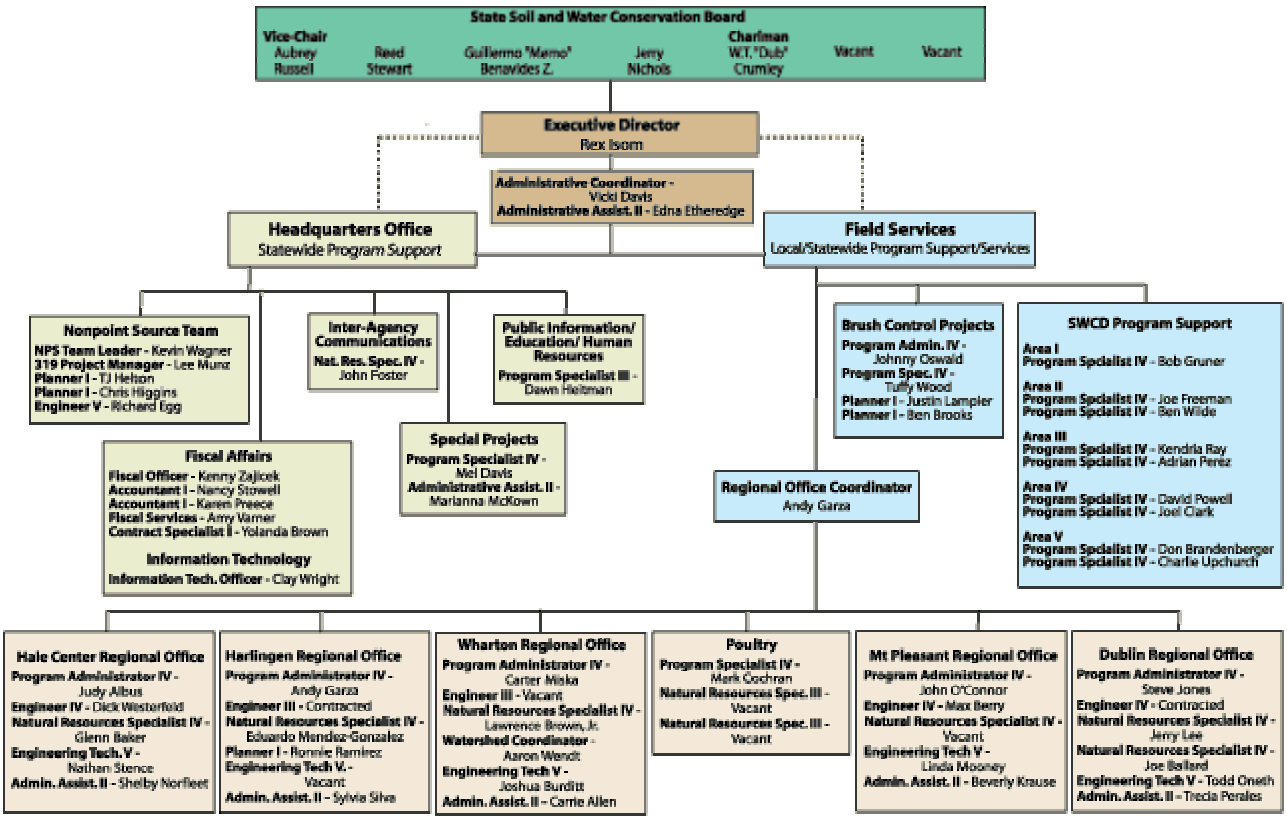
Member Name	Region	Term	Residence
Aubrey L. Russell	#1	May 5, 2003 – May 3, 2005	Panhandle
Reed Stewart	#2	May 4, 2004 – May 2, 2006	Sterling City
Guillermo "Memo" Benavides Z.	#3	May 5, 2003 – May 3, 2005	Laredo
Jerry D. Nichols	#4	May 4, 2004 – May 2, 2006	Nacogdoches
W.T. "Dub" Crumley	#5	May 5, 2003 – May 3, 2005	Stephenville

STAFF

Mr. Rex Isom was named as the Executive Director in January 2004 and continues to carry out the directives of the State Board and directing staff efforts.

We emphasize our agency philosophy as stated in our Strategic Plan, "The State Soil and Water Conservation Board will act in accordance with the highest standards of ethics, accountability, efficiency, and openness. We affirm that the conservation of our natural resources is both a public and a private benefit, and we approach our activities with a deep sense of purpose and responsibility." Mr. Isom, as Executive Director, is leading the agency in that direction and expects all employees to follow that lead.

On December 1, 2004 the TSSWCB employed 55 staff, 17 of which work in the Temple headquarters. The remaining 38 employees are field staff, either working out of their homes or located in the five regional offices located throughout the state. After the first of the year two more field staff will be added: one in the Harlingen Office and one in the Mount Pleasant Office. Additionally, the TSSWCB has been provided funding for two new Natural Resource Specialist III positions for statewide poultry operations and a new TSSWCB Poultry Office in Nacogdoches to further address the growing needs for poultry water quality management plans. A Program Specialist IV was assigned to a field location in Nacogdoches County in FY04 to represent the agency on poultry issues. Due to difficulty in recruiting engineers, two field engineer positions are contracted. The following organization chart shows the agency's current structure.



The current structure of the TSSWCB now reflects efforts to place more personnel in the field and away from headquarters for a 70% to 30% ratio of Field personnel to Headquarters personnel.

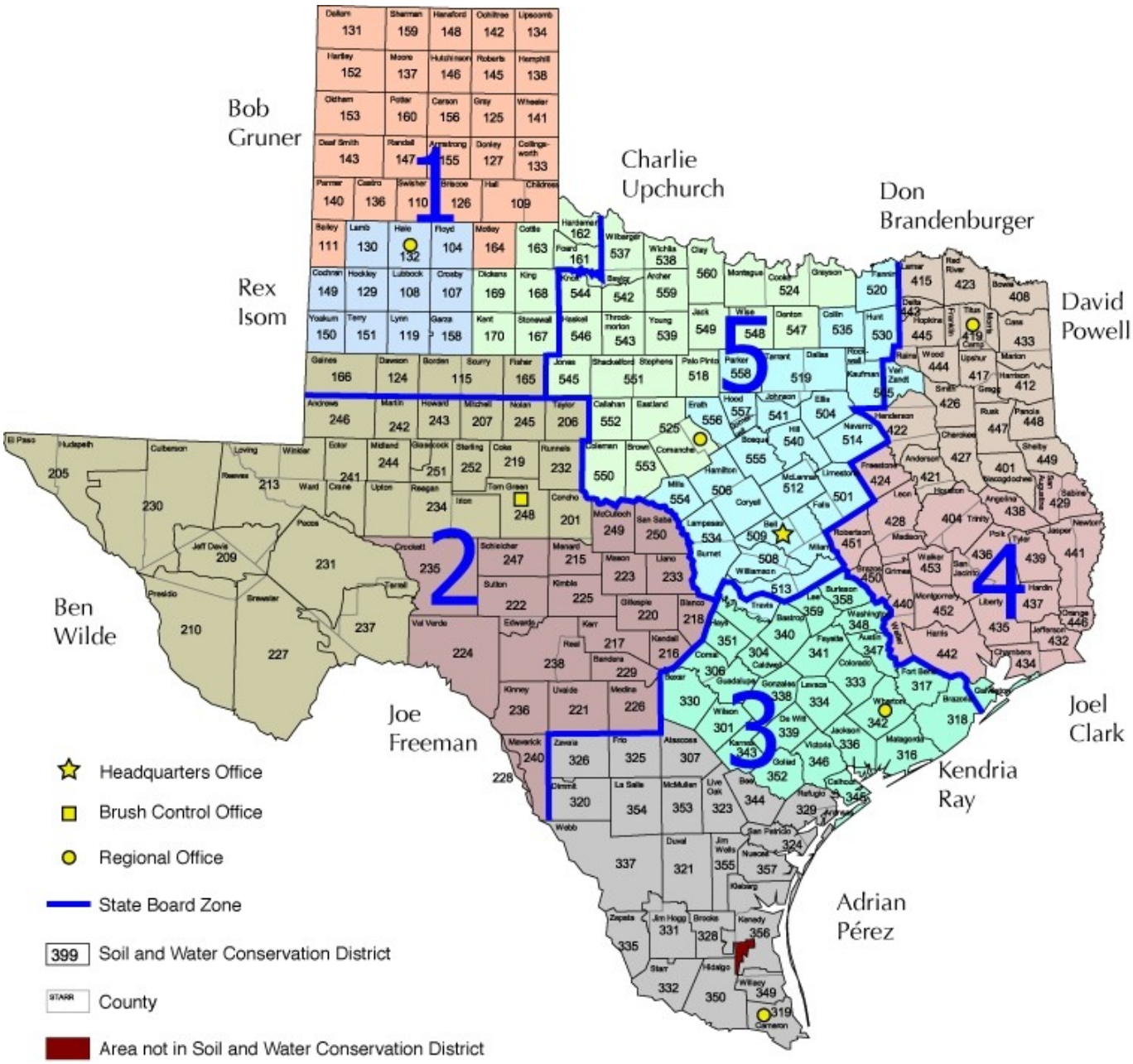
The regional office staff provides on-site technical assistance to farmers and ranchers. The field staff serves as a liaison between the TSSWCB and local districts. The field staff also provides assistance to local districts and district employees concerning operations, programs, and activities. The regional office staff coordinates with the Texas Commission on Environmental Quality (TCEQ), Texas Cooperative

Extension (TCE), and the USDA's Natural Resource Conservation Service (NRCS) to provide technical assistance to landowners on conservation projects.

SOIL AND WATER CONSERVATION DISTRICTS

The TSSWCB performs many of its activities in coordination with the state's 217 local soil and water conservation districts. These local districts are political subdivisions of the state, established through local option elections of agricultural landowners. Districts generally reflect county boundaries, but may also follow river basin or watershed boundaries, depending on the desires of the local landowners.

The following soil and water conservation district map shows the current 217 local districts that cover almost the entire state. That portion of the state not in a soil and water conservation district is in Kenedy County and contains the privately owned King Ranch. The map also shows the grouping of the districts into the five State Board Districts that respectively elect a State Board member and shows the field staff that is assigned to work with each district within a specific area.



Landowners within these local districts elect the five district directors that comprise the districts governing body or board of directors. This board of directors administers the programs and activities of the district. Representatives of the districts within each region then elect the members of the State Board through a series of convention style-elections.

Districts do not have taxing authority and rely on locally generated funds from various activities and programs, federal assistance, county assistance, and state assistance from the TSSWCB. The USDA Natural Resource Conservation Service (NRCS) provides most of the federal assistance available to districts and through cooperative agreements provides technical assistance to farmers and ranchers requesting assistance from the district.

ANNUAL STATE MEETING OF SOIL AND WATER CONSERVATION DISTRICT DIRECTORS

The Annual State Meeting of Soil and Water Conservation District Directors, required in §201.081, Texas Agriculture Code, convened in Laredo last October. There were 121 districts represented, with 248 individual district directors that registered for the meeting. The total registration was 660.

For the 2005 calendar year, the state meeting is scheduled for October 24-26 in Corpus Christi.

DIRECTOR MILEAGE AND PER DIEM

Due to the reductions in staff at the headquarters office, director mileage and per diem claims are now managed directly by districts. The TSSWCB sent each district 75% of their approved allocation (grant) on October 1, 2004. The remaining 25% will be used as a pool for any expenses not covered through the initial allocation (grant). Field staff will approve each claim before payment to ensure claims are accurate and comply with state statutes and guidelines. The FY05 state appropriation for this program is $325,000.00.

DISTRICT TECHNICAL ASSISTANCE FUNDS

Rider 4 of the TSSWCB 2004-2005 Appropriation revised the allocation method for technical assistance funds. On September 1, 2004, the TSSWCB authorized the payment of 25% of each district's approved allocation (grant). The remaining balance for each district allocation will be distributed on a reimbursement basis during the fiscal year as expenditures are incurred. The FY04 state appropriation for this program is $1,036,241.00.

DISTRICT SUB-CHAPTER H FUNDS

Sub-chapter H funds were appropriated to the TSSWCB from the Agricultural Soil and Water Conservation Account No. 563. Senate Bill 1053 enacted by the 78th Legislature moved the bond that funded Account No. 563 to the Texas Water Development Board (TWDB). Account No. 563 no longer exists and future funding for what was Sub-chapter H grants will come from the TWDB in the form of competitive Agricultural Water Conservation Grants. The TWDB adopted rules and developed a grant application process for distributing the funds from the fund. The TSSWCB, on behalf of districts, applied to the TWDB for grant funding. The Texas Water Development Board met June 16, 2004 to review applications and awarded the State Board a grant of $115,000.00 for agricultural water conservation to be carried out by districts.

The FY05 Agricultural Water Conservation Grants from TWDB will be awarded next spring. The TWDB will be publishing Requests For Applications (RFA) in the December 31, 2004 issue of the *Texas Register* to initiate the process of considering funding water conservation projects this year. The TWDB has allocated $100,00.00 for grants to state agencies. The grants are to be used for an agricultural water conservation program for providing statewide technical assistance for irrigation water conservation practices.

DISTRICT CONSERVATION ASSISTANCE PROGRAM

District Conservation Assistance funds are appropriated to the TSSWCB from general revenue funds. Of the 217 local soil and water conservation districts, 216 districts request to receive an allocation (grant) from these funds. Local districts receive these funds as a dollar for dollar match for money that they generate locally through various activities. The local districts use this money to pay operational expenses. The FY04 state appropriation for this program is $916,364.00.

PROGRAMS & ACTIVITIES OF THE TSSWCB

The services and programs provided by the TSSWCB target rural Texas farmers and ranchers, but the results of these services benefit all Texans. For example, many of the flood control structures maintained by soil and water conservation districts serve to protect heavily populated areas from flood damage, and also prevent sediment from building up in suburban drinking water supplies. Another example is the use of best management practices, implemented through TSSWCB-certified water quality management plans, to prevent pesticides, nutrients, and other contaminants from impairing Texas waters.

The agency is responsible for numerous natural resource conservation efforts, the most prominent of which is serving as the lead state agency for the prevention, management, and abatement of nonpoint source pollution resulting from agricultural and silvicultural, or forestry-related, activities. As a result, the majority of the agency's programs and services aim to improve and protect water *quality*. The TSSWCB is also responsible for water conservation, or water *quantity*. The major existing program addressing water conservation is the Texas Brush Control Program, although the agency is conducting preliminary work on a new program that would provide assistance to Texas landowners who irrigate cropland from both ground and surface water sources. The Water Conservation Taskforce, created by Senate Bill 1094 from Senator Duncan, issued a final report to the Legislature recommending a state cost-share program be implemented through the TSSWCB to assist landowners in implementing best management practices that conserve water resources. If the agency is asked to fully develop the new program by the Legislature, it would likely be patterned after the Water Quality Management Plan Program created by Senate Bill 503 in 1993. Other responsibilities include prevention of soil erosion, control of floods, maintaining the navigability of waterways, the preservation of wildlife, protection of public lands, and providing information to landowners regarding the jurisdictions of the TSSWCB and the Texas Commission on Environmental Quality related to nonpoint source pollution. The TSSWCB has no regulatory functions; all of the agency's programs and services are voluntary in nature.

TOTAL MAXIMUM DAILY LOAD (TMDL) PROGRAM

Section §303(d) of the 1972 Federal Clean Water Act (CWA) requires all states to compile a list of water bodies that do not meet their designated uses and then to develop total maximum daily loads (TMDLs) for the particular pollutant(s) that is causing the impairment. Following the development of a TMDL, a state approved implementation plan is developed prescribing the measures needed to restore the polluted water bodies.

In Texas, the responsibility to develop TMDLs is shared between two state agencies: the Texas State Soil and Water Conservation Board (TSSWCB) and the Texas Commission on Environmental Quality (TCEQ). In general, the TCEQ is the lead agency for protecting Texas' water quality. However, TCEQ shares the responsibility for managing and abating nonpoint source pollution with the TSSWCB. The TSSWCB is designated as the lead agency for *agricultural and silvicultural* nonpoint source pollution

abatement while the TCEQ is the state's lead agency for *urban* nonpoint source pollution abatement and for *point source discharge permitting* through the Texas Pollutant Discharge Elimination System. As a result, any organization considering undertaking a TMDL project for a water body listed for an impairment due to agricultural or silvicultural nonpoint source pollution must coordinate efforts with the TCEQ and with the TSSWCB.

There are numerous watershed segments on the §303(d) List that involve agricultural nonpoint source (NPS) pollution and are targeted by TSSWCB Programs (i.e. CWA §319 and WQMP Programs) as funding becomes available. The TSSWCB is actively involved in the development for of TMDLs for 24 water bodies and the implementation of 5 TMDLs (E.V. Spence Reservoir, North Bosque River, Lake Aquilla, Lake of the Pines, and Arroyo Colorado) that have been identified as being impaired, at least in part, by agricultural activities. These TMDLs, which are primarily addressing dissolved oxygen/nutrients, bacteria, Atrazine, and salinity, are being implemented using both CWA §319 funding and WQMP Program funds. These programs are described in detail in following sections.

CLEAN WATER ACT, §319(h) GRANT PROGRAM

Background

Congress enacted Section 319(h) of the Clean Water Act in 1987, establishing a national program to control nonpoint sources of water pollution. Through Section 319(h), federal funds are provided through the EPA to states for the development and implementation of the State's Nonpoint Source Management Program. The 319(h) funding in Texas is divided evenly between the TCEQ and TSSWCB. The following report provides an overview of TSSWCB's 319(h) program status and major ongoing activities.

FY 2005 CWA 319 Funding Allocation

The FY 2005 CWA 319 funding allocation for the EPA is $207 million nationally, down from $238 million in FY 2003. That is a 13% drop in two years. Therefore it is very important that we recruit and select projects that meet national load reduction goals, have quantifiable environmental benefits, and meet with Program Assessment Measures.

Texas' total federal allocation is $9,512,300 ($4,763,900 Base + $4,748,400 Incremental). The TSSWCB 319 program allocation is:
Base = $2,381,950 and Incremental = $2,374,200;
Federal Total = $4,756,150;
Required Matching total is $3,170,767;
Total Expected Grant Application will be (Federal + State Match) = $7,926,917.

Fiscal Year 2005 Grant RFP

The TSSWCB accepted pre-proposals for FY 2005 funding from October 1, 2004 through November 26, 2004. The TSSWCB received 21 pre-proposals requesting a total of $5,638,506 in federal funds. The TSSWCB staff is currently reviewing and ranking the pre-proposals.

State Nonpoint Source Management Plan

An approved Management Plan is a requirement for receiving 319 Grant funding. The current Management Plan expires in January 2005. The NPS Management Program revision is in the last developmental stages for Final Draft status. Formal "response to comments" (RTC), addressing EPA's most recent set of comments, has been completed and will be sent in December of 2004, for EPA review, along with the newly revised Draft. Following negotiation with EPA, the document will begin the Publications Review process and Public Comment period, which should take approximately two months. TSSWCB Board members and TCEQ Commissioners will then review for formal approval and permission to forward to the Governor. The Attorney General will provide certification and the Governor's signature will finalize the document. The finalization process is projected to take an additional month, placing completion of the revised NPS State Management Program at around March or April of 2005.

2004 Annual Report

In order to receive 319 funds, the State of Texas must also submit a Report on the Activities of the Texas NPS Pollution Program annually. The TCEQ develops the report on odd number years and the TSSWCB develops the report on even numbered years. Thus, the TSSWCB staff is responsible for preparing the FY 2004 Annual Report. TSSWCB met with EPA on October 5, 2004 to gain their input on the report. Staff also met with TCEQ on October 22, 2004. This report must be submitted to EPA in January 2005 to ensure continued funding.

End of Year Meeting With EPA

On November 23, 2004, the EPA conducted its end of year review of the TSSWCB. The primary purpose of this meeting was to update EPA on all current projects and activities. The TSSWCB is awaiting EPA's feedback.

Fiscal Year 1999 Grant Closeout

The TSSWCB closed out the FY 1999 grant and projects in November 2004. Remaining funds from the FY 1999 grant were moved into the FY 2004 grant to fund new projects.

Fiscal Year 2004 Grant Approval

EPA awarded the FY 2004 grant to the TSSWCB on July 21, 2004. Contracts for all 16 FY2004 projects have been initiated by the TSSWCB.

Project Management

With the addition of the FY04 Grant and the closeout of the FY99 Grant, there are currently 66 ongoing 319 projects. The $25 million provided through the Clean Water Act, §319(H) Nonpoint Source Grant Program is being utilized for NPS from poultry operations and dairies, runoff of atrazine from cropland, salt cedar, watershed planning, groundwater quality improvement, assessing sources of bacteria, educational programs for the forest industry, and other implementation, education, and assessment projects (Figure 1). Quarterly reports for ongoing projects were received on July 15, 2004 and October 15, 2004. To date, project reports have been received for 100% of the projects. These reports are entered into

EPA's Grant Reporting Tracking System. The TSSWCB has also began conducting financial audits on one 319 projects each quarter. Last quarter, an audit was conducted on the Shelby SWCD 319 project on November 9, 2004.

Project spotlights are provided below.

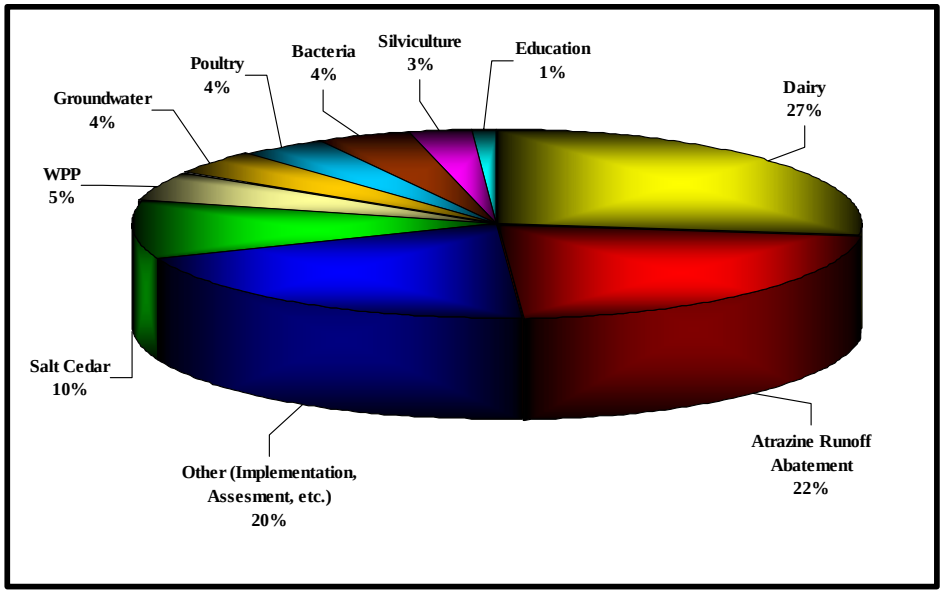


Figure 1.0 TSSWCB active state and federal 319(h) grants for FY 2000 – FY 2004.

Santa Rosa Springs Water Quality Preservation Project

The Santa Rosa Spring is located in Northern Pecos County between Grandfalls and Fort Stockton. At one time there were 42 live springs in Pecos County, including the famous Comanche Springs, Leon Springs, Santa Rosa Springs, and the Diamond Y Spring. Due to irrigation draw-down, drought, and the encroachment of water depleting salt cedar, that number has been reduced to only two: the Santa Rosa, and the Diamond Y Springs. These springs are a unique feature because they are located in the heart of the Chihuahuan Desert.

The Santa Rosa Springs was used primarily for irrigation until sometime around 1950, as a result of decreased flow. The owners at the time decided that they should create a water district to try to bring the flow of the spring back. The Pecos County Water Control and Improvement District #2 was created in 1955 by an act of the Texas Legislature. Several schemes were attempted to provide additional water for the spring including: dredging; building a dam; and drilling a well to tap into an artesian formation. Due to the prolonged drought, the artesian formation that the water district hoped to tap into was not flowing. Instead of filling the spring with water, the well drained the spring. The water district did manage to put a makeshift cap in the well before abandoning operations in the early 1960s.

Schuyler Wight III purchased the property in 1987. In 1999, after seeing successful results from experiments using Arsenal herbicide on the Pecos River, Mr. Wight began treating the dense stands of saltcedar that had grown up in and along the catchments around the old spring. As the saltcedar died out, the historic spring began bubbling back to life.

In January 2001, Mr. Wight found the old abandoned Pecos County Water Control and Improvement District well flowing near the spring. He immediately called the Texas Railroad Commission (RRC) because he assumed that it was an old oil well. The water from the well was determined to have concentrations as high as 78,000 ppm total dissolved salts. In comparison ocean water generally has a salinity of 35,000 ppm. A temporary cap was installed on the wellhead by the RRC to stop the flow of approximately 100,000 barrels per day of salt water while they searched for a responsible operator. Since a responsible operator could not be located the well became Mr. Wight's responsibility. The immediate concern was that the salt formation would move upward or outward and reach the Santa Rosa Spring or the Pecos Tertiary Alluvium fresh water aquifer. Additionally, there was a concern that saltwater would flow approximately four miles and empty directly into the Pecos River. Mr. Wight sought the assistance of the TSSWCB. As a result, there were two projects funded by the TSSWCB §319(h) grant to decommission the water well in order to prevent the destruction of the environmentally and historically significant Santa Rosa Springs and subsequent contamination of parent groundwater by excessive salinity. The Pecos County Water Control and Inspection District #2 well was successfully decommissioned in July 2004. It is estimated that this prevented the flow of almost two tons of salt per day into the spring and eventually the Pecos River.

Salinity Reduction in the E.V. Spence

The TSSWCBs §319 program is currently funding three projects to aid in implementing the Implementation Plan for Sulfate and Total Dissolved Solids TMDLs in the E.V. Spence Reservoir. These projects are chemically and biologically treating saltcedar in riparian areas along the Colorado River and its tributaries in an effort to reduce NPS pollution loadings resulting from invasive brush species on agricultural lands. Two of the projects are examining biological control of salt cedar by introducing the Chinese leaf beetle (*Diorhabda elongate*) to the E. V. Spence Reservoir, monitoring the results with satellite imagery and modeling the dispersal rate of the leaf beetle in areas where chemical control is not feasible due to sparse stands, close proximity to sensitive vegetation and to manage salt cedar regrowth following chemical treatment.

The third project involves chemically treating salt cedar by aerial application of the herbicide *Arsenal* in a 150-ft wide corridor (75 ft on each side of the river) along the Colorado River and its tributaries. During FY 2004, the first year of the project, approximately 1500 acres were scheduled to be treated however; there was no spraying due to undesirable leaf canopy conditions. Therefore the acreage scheduled for 2004 will be combined with the acreage scheduled for 2005 and approximately 2,770 acres will be treated during FY 2005 if conditions are conducive.

Water Quality Management Plans for Poultry Operations

Since 1999, seven projects funded through the §319(h) grant have provided technical and financial assistance through local SWCDs to poultry producers to obtain and implement certified WQMPs. This program is described in detail in other sections of this document.

Texas Silvicultural Nonpoint Source Pollution Project

The Texas Silvicultural Nonpoint Source Pollution Project has had a tremendous impact on water quality in the forested region of East Texas. Through this project, the forestry community has been able to prevent almost 12,000 tons of sediment from reaching streams and 96,000 tons of sediment from eroding off East Texas forestlands every year by using Forestry Best Management Practices. Visually, this is enough sediment to cover a football field, end zone to end zone, over thirty five feet high.

How do we know that we are actually protecting water quality? The Texas Forest Service recently began an innovative, high-tech monitoring project designed to test the effectiveness of our state recommended BMPs. This project will provide data on the effectiveness of our BMPs by measuring stream habitat, biological communities, and physiochemical properties before and after forest operations. Another method that is often used is by monitoring randomly chosen forestry sites for BMP implementation. Last round recorded the highest ever BMP implementation rate in the history of the program. To date, over 800 forest operations have been evaluated for the implementation of BMPs. Early projections show the current round to meet or exceed these record levels.

Education and technical assistance has been vital to the success of this project in protecting water quality. *To date, over 2700 loggers have been trained in BMPs through 109 workshops. An online BMP refresher course is scheduled to be released this spring. An estimated 500 people per year are expected to participate. Over 30 major forest landowner workshops have been held throughout Texas to inform landowners on the importance of using BMPs, reforestation, and wildlife reaching nearly 4,000 people. An aggressive advertising campaign that includes radio and TV ads, newspaper articles, newsletters, and billboards has targeted over a million people. The Texas Forestry Best Management Practices Handbook was updated in 2004, allowing the forestry community to achieve greater water quality protection.*

North Bosque River Restoration Initiative

The North Bosque River in north central Texas has water quality degradation from excessive nutrient loading attributed in part to growth of the local dairy industry and resultant increases in land application of manure waste. The TSSWCB has initiated a number of 319 projects in an effort to bring an innovative solution to the problem of elevated phosphorus levels in the North Bosque and Leon River watersheds. These activities are described in detail in other sections of this document.

CWA Section 319(h) FY 2000

Grantee	*Federal Funds*	*Project Title*
TSSWCB	$115,477	Administration of the FY2000 CWA Section 319(h) Agricultural/Silvicultural NPS Management Program
TSSWCB	$197,972	Statewide NPS Pollution Management Project
Hill & Johnson Co. SWCD	$1,018,400	North Central Texas Atrazine Remediation
Navarro SWCD	$404,200	North Central Texas Atrazine Remediation

Dalworth SWCD	$93,849	North Central Texas Atrazine Remediation
Ellis - Prairie SWCD	$456,700	North Central Texas Atrazine Remediation
TIAER	$2,344,521	Composting Support in Bosque River Watershed

FY 2000 Total $4,631,119

CWA Section 319(h) FY 2001

Grantee	***Federal Funds***	***Project Title***
TSSWCB	$228,574	Administration of the FY2001 CWA Section 319(h) Agricultural/Silvicultural NPS Management Program
TSSWCB	$208,890	Statewide NPS Pollution Management Project
Upper Sabine SWCD	$418,366	North Texas Atrazine Remediation
Collin County SWCD	$404,200	North Texas Atrazine Remediation
Fannin SWCD	$246,700	North Texas Atrazine Remediation
Upper Elm-Red SWCD	$246,700	North Texas Atrazine Remediation
Gonzales SWCD	$412,700	WQMP Development & Implementation Assistance
Panola SWCD	$529,285	WQMP Implementation Assistance in the Toledo Bend Reservoir Watershed
TAMU PFRL	$166,352	Aquilla Reservoir TMDL Implementation Plan Monitoring
Cross Timbers SWCD	$1,684,616	Technical and Financial Assistance in the Bosque River Watershed
Upper Leon SWCD	$1,315,974	Technical and Financial Assistance in the Bosque River Watershed

FY 2001 Total $5,862,357

CWA Section 319(h) FY 2002

Grantee	*Federal Funds*	*Project Title*
TSSWCB	$348,705	Administration of the FY2002 CWA Section 319(h) Agricultural/Silvicultural NPS Management Program
TSSWCB	$373,657	Statewide NPS Pollution Management Project
Rusk SWCD	$376,461	WQMP Implementation Assistance in the Sam Rayburn & Toledo Bend Reservoirs Watersheds
Texas Forest Service	$431,394	Texas Silviculture
Central Texas SWCD	$406,220	Little River Atrazine Remediation
Little River - San Gabriel SWCD	$309,020	Little River Atrazine Remediation
TIAER	$200,050	Composting Support in Bosque
TFB, TAES, TAMU AREC	$639,742	DNA Sample Collection/Library
TCE	$203,178	Phosphorus Index
Southmost, Shelby, & Ellis-Prairie SWCDs	$456,438	Three - Technicians
Nueces SWCD	$536,502	Oso Creek/Oso Bay Watershed Implementation Assistance
TCE	$191,636	North Texas Atrazine Demonstration
TSSWCB	$135,000	Water Quality Information/Education
Southmost SWCD	$500,000	Implementation Support Project in the Arroyo Colorado Watershed
Pineywoods RC&D	$147,497	Development of New Litter Markets in TX

Leon Bosque RC&D Council	$52,500	Athletic Field Topdressing as a Commercial Market for Compost from Dairy Manure

FY 2002 Total $5,308,000

CWA Section 319(h) FY 2003

Grantee	*Federal Funds*	*Project Title*
TSSWCB	$154,231	Administration of the FY2003 CWA Section 319(h) Agricultural/Silvicultural NPS Management Program
TSSWCB	$245,109	Statewide NPS Pollution Management Project
UCRA	$19,200	The Aquatic Experience
Texas Forest Service	$367,620	Texas Silviculture BMP Effectiveness Study
Shelby SWCD	$350,000	Sam Rayburn WQMP Implementation Supplemental
TSSWCB	$2,208,446	E.V. Spence Saltcedar
TWRI	$247,198	Bacteria Monitoring for Buck Creek
TCE	$98,341	Nitrate Impacts in Groundwater
Little River - San Gabriel & Central Texas SWCD	$424,080	Central Texas WQMP Implementation Supplemental
TWRI	$227,793	Technologies for Animal Waste Pollution
ARS - USDA	$99,245	Leaf Beetle Demonstration
Navarro SWCD	$430,279	Navarro WQMP Implementation Supplemental
BRA	$96,081	Edge of Field Monitoring
TCE	$101,271	Reducing Atrazine Losses in Central TX

NRCS-WRAT	$158,400	Atrazine Modeling
BRA	$190,815	Bosque Watershed Coordinator

FY 2003 Total $5,418,109

CWA Section 319(h) FY 2004

Grantee	*Federal Funds*	*Project Title*
TSSWCB	$154,220	Administration of the FY2004 CWA Section 319(h) Agricultural/Silvicultural NPS Management Program
TSSWCB	$520,477	Statewide NPS Pollution Management Project
Leon-Bosque RC&D Council	$300,000	Athletic Field Topdressing as a Commercial Market for Compost from Dairy Manure
TCE	$390,657	Field Validation of the Texas P Index in the Poultry Areas of TX
LCRA	$507,300	Creekside Conservation Program Project
NRCS-WRAT	$96,000	Modeling Nutrient Loads from Poultry Operations in the Toledo Bend & Sam Rayburn Reservoir Watersheds
Jack SWCD	$100,000	Technical Assistance and Implementation in West Fork of the Trinity River Watershed
Zapata SWCD	$461,290	WQMP Implementation Assistance in Falcon Reservoir Drainage Area in Zapata Co.
TWRI	$764,054	Seymour Aquifer Water Quality Improvement
TAES	$238,959	Phytoremediation of excessively high phosphorus soils and subsequent reduced P runoff into North Bosque River
TWRI	$709,381	Watershed Protection Plan Development for the Pecos River

TIAER	$90,090	Little Wichita River Watershed Protection Plan
UCRA	$375,240	Development of a Watershed Protection Plan for the Concho River Basin
NETMWD	$442,805	Assessment and Mitigation of Agricultural and Other NPS Activities in the Cypress Creek Basin
ARS-USDA	$136,724	Mathematical Model for Dispersal of Leaf Beetle, Diorhabda Elongata from Old World released in U.S. for Biological Control of Invasive Saltcedar
Nueces River Authority	$170,703	Nueces Basin Headwaters Stewardship Project

FY 2004 Total $5,457,900

WATER QUALITY MANAGEMENT PLAN (WQMP) PROGRAM

In 1993, the Texas Legislature passed Senate Bill 503 that directed the TSSWCB to implement Water Quality Management Plans (WQMPs) in Texas. The agency has implemented more than 6000 WQMPs since the inception of the program.

The WQMP Program is administered from five Regional Offices around the state. A poultry WQMP office will open in Nacogdoches in January 2005. The Regional Offices are:

- Dublin Regional Office
- Hale Center Regional Office
- Harlingen Regional Office
- Mount Pleasant Regional Office
- Wharton Regional Office
- Poultry Program Office (Nacogdoches - Coming in January 2005)

A WQMP is a site-specific conservation plan developed through (and approved by) SWCDs for agricultural or silvicultural lands. The plan includes appropriate land treatment practices, production practices, management measures, technologies or combinations thereof. The purpose of WQMPs is to achieve a level of pollution prevention or abatement determined by the TSSWCB, in consultation with local soil and water conservation districts, that is consistent with state water quality standards.

The TSSWCB selected requirements for a WQMP based on the criteria outlined in the *Field Office Technical Guide (FOTG)*, a publication of the United States Department of Agriculture's Natural Resources Conservation Service (NRCS).

Nutrient management must be included if nutrients are applied. If an animal feeding operation is involved (such as an unpermitted dairy), a WQMP will be planned with practices that individually or in combination with other practices will properly manage animal wastes. Waste utilization will be considered when agricultural wastes are applied. These WQMPs also have subcomponents for irrigation waters, erosion control, and are flexible enough to cater to a wide range of operating systems.

Agricultural and forestry landowners may enter into these cooperative agreements with their local district to control nonpoint source pollution from their operations. While the decision to develop a plan is voluntary, landowners have many reasons to do so. These plans provide for landowners to use best management practices in their operations to protect their most precious agricultural resources by controlling erosion, conserving water, and protecting water quality. In addition, certified plans have the same legal status as Texas Commission on Environmental Quality (TCEQ) point source pollution permits, without having to go through that agency's regulatory process. Landowners may also receive financial incentives to help pay for implementing these plans.

It should be noted that an animal feeding operation that is required by law to operate within the confines of a water quality permit issued by the TCEQ cannot participate in the TSSWCB program.

Water Quality Management Plans are especially useful for animal feeding operations. Depending on their size, animal feeding operations may be regulated by TCEQ as a point source or are unregulated and eligible for the TSSWCB's voluntary program. Generally, these feeding operations are classified according to the number of animals they have, calculated as "animal units"; however, TECQ has adopted rules that provide if you have or exceed a certain number of animals, you will be regulated. Animal feeding operations with more than the number of animals listed in TCEQ rules must apply for a permit. Most animal feeding operations in Texas are not large enough to require a permit, which makes this program critical to protecting Texas' water quality.

In developing the Water Quality Management Plan, the TSSWCB, SWCDs, and the USDA Natural Resources Conservation Service (NRCS) provide technical assistance to help the landowner meet the criteria of the plan. A plan establishes practices and installations on the farm that adhere to best management practices specific for that area. The various installations that a plan calls for depend on the operation. A farm may include a combination of cropland, dairy cows, poultry, hogs or cattle.

These plans may also include erosion control measures such as terraces or grass waterways; or they may address nutrient management to help landowners avoid over-fertilizing their land, or over-applying animal waste. Although a plan will take into consideration each farm's unique components, all WQMPs generally attempt to control erosion, conserve water, and protect water quality.

Upon TSSWCB certification of a WQMP, a landowner may apply for a financial incentive that will help pay for implementing the plan. Local districts have varying rates for sharing the cost of plan implementation, however cost-share may not exceed 75% with a maximum $10,000 grant limit per plan. Landowners receiving financial incentive have approximately three years to implement the provisions of the WQMP.

The TSSWCB allocates money to local districts for financial incentives based on whether the area has impaired water bodies as determined by TCEQ, or if the TSSWCB had previously designated it as a priority. Most of these financial incentives were appropriated from General Revenue funds. Some plans

received financial incentives from federal funds. State appropriations provided to local districts in FY04 amounted to $2,171,740.00 to carry out a WQMP cost-share program in their district.

In addition to certifying WQMPs to ensure that they help abate nonpoint source pollution, the TSSWCB monitors WQMPs to ensure they are properly implemented. Each year, the TSSWCB conducts status reviews on a minimum of 10% of the plans. Additional technical assistance may be offered to a landowner when a WQMP is found noncompliant. In the unlikely case that the landowner does not achieve compliance with the WQMP, the TSSWCB may decertify the plan.

During FY03, the WQMP Program was administered from the TSSWCB office in Temple. The staff reductions in the FY04 budget made it necessary for the program to be reorganized and the Regional Offices are now administered from the Harlingen Regional Office. Additionally, plan certification authority was shifted from the Temple headquarters to each regional office. This change is already expediting the certification process and reducing postage expenditures, while maintaining the integrity and standards of the program.

The last adjustment involved the complaint process, which was also administered out of the headquarters office during FY03. Headquarters office no longer has an individual to do complaint inspections and all complaints are investigated from the appropriate Regional Office.

For FY04 the WQMP Program met or exceeded three of its major performance measures. A total of 996 WQMP were certified in FY-04. All five Regional Offices conducted their required evaluations effective through the program cycle of FY-02. The evaluation period for the next round of cost-share allocations for FY-05 will include the fiscal years 98-02.

Cooperative agreements have been executed with all participating districts. These agreements will allow the districts to reobligate FY-04 cost-share funds that have been released for one reason or another. Hopefully, this approach will alleviate the problem of lapsed funds that has been a major issue with the program.

POULTRY WATER QUALITY MANAGEMENT PLAN (WQMP) INITIATIVE

In 1994, the Texas State Soil and Water Conservation Board (TSSWCB) began assisting poultry operations with the establishment of the Northeast Texas - Senate Bill 503 Cost-share Area. Since 1994, over $300,000 of WQMP Program funding has been provided annually to six soil and water conservation districts (SWCDs) in Northeast Texas to address animal feeding operations (AFOs).

In 1995, the TSSWCB initiated three Clean Water Act, §319(h) projects to demonstrate composting as a means for dead bird disposal, buffer strips, and proper land application of poultry litter. In 1996, the TSSWCB expanded its efforts by initiating a composting and marketing project. This effort to promote the installation of composters and other means of mortality management on poultry farms resulted in accelerated WQMP development.

In 1997, the Texas Legislature passed Senate Bill 1910, which required all poultry farms to have a TCEQ-approved method of dead bird disposal. The law took effect in March 1998. However, the rules were not adopted and did not take effect until fall 1999. It was during this time that requests for poultry-WQMPs significantly increased due to pursuit of cost-share for mandated mortality management. This activity intensified the TSSWCB's poultry initiative.

In response to water quality concerns and the initiation of TMDL development in the Big Cypress/Lake O' the Pines watershed in 1999, the TSSWCB began using §319 funds for cost-share in the area in addition to the Senate Bill 503 cost-share funds already directed to the watershed. Due to rising concerns in nearby watersheds, the TSSWCB also included the Sam Rayburn and Toledo Bend Reservoir watersheds in its initiative in 1999. The TSSWCB expanded the poultry initiative again in 2001 to the Gonzales area.

All together, the TSSWCB has focused $5.3 million in §319 funding and over $3 million in state funding to assist poultry operations with abating NPS pollution in Texas. Four of the sixteen §319-funded projects are ongoing. Another $2.9 million in USDA-NRCS Environmental Quality Incentives Program (EQIP) funding was obligated to assist poultry producers in Northeast Texas and Gonzales County from 2000 to 2003.

The 77th Legislature, in 2001, passed Senate Bill 1339, which requires all poultry facilities in Texas to operate in accordance with a WQMP certified by the TSSWCB. The review and certification process assures the plan includes appropriate practices, management measures and schedules of implementation.

This law provides a staggered-schedule of deadlines by which each producer, depending on their initial date of operation, must have requested the development of a WQMP from their soil and water conservation district. Any poultry facility constructed after January 1, 2002 is required to have a WQMP prior to the receipt of any birds.

Since the effective date of the new law, the TSSWCB has identified 1495 total poultry farms, of which 1321 (88%) currently operate under a certified WQMP. The TSSWCB estimates that no farms need to request a WQMP before January 2005 and 90 farms before January 2008. The other estimated 84 farms have already requested a plan and those plans are in various stages of development. However, there is an ongoing challenge of identifying new poultry farms continually being constructed and put into production and locating other poultry farms not yet identified.

Producers who fail to submit an application for a WQMP before the appropriate submission date for their specific facility are subject to enforcement actions by the Texas Commission on Environmental Quality. In FY04, new WQMPs have been developed for 140 poultry farms and 95 existing WQMPs have been revised for poultry farms. In addition, status reviews have been conducted on 257 poultry farms in Texas, which is approximately 19% of poultry farms with a WQMP.

Since 2001, seven soil and water conservation district (SWCD) technicians have been employed under Federal Clean Water Act §319 contracts to develop WQMPs in poultry producing areas. Those contracts will expire in 2004. An eighth §319 district technician was hired in 2003 in the Shelby SWCD to conduct WQMP status reviews and that contract will expire in 2005. As a result, beginning in FY 2005, there will be a substantial reduction of available staff for developing new plans, conducting status reviews, and revising plans as needed.

Due to changes made by the U.S. Environmental Protection Agency (EPA) to the federal regulations for concentrated animal feeding operations (CAFOs), the Texas Commission on Environmental Quality (TCEQ) has adopted a rule change that requires dry-litter poultry operations larger than 125,000 or more broilers or pullets, 82,000 or more layers or breeders, or 55,000 turkeys to operate under a water quality permit. Prior to this change in the federal regulations, dry-litter poultry operations were not required to have a permit. The requirement for a permit becomes effective in 2006. TSSWCB estimates between

200-500 poultry operations will require permits. The final CAFO Rule adopted by TCEQ recognizes that a poultry operator's existing WQMP meets the majority of the technical requirements required by a permit. The TSSWCB Staff is currently working on a new guidance document, Converting Water Quality Management Plans into Pollution Prevention Plans on Dry Litter Poultry Operations Requesting General Permit Coverage, to assist poultry producers in utilizing their existing WQMPs as a component to the general permit. TCEQ and TSSWCB are currently in discussions that should result in TSSWCB "WQMP-status reviews" contributing to the permit inspection process. TSSWCB would perform status reviews on 20% of the permitted operations using WQMPs as a permit component, per year. TSSWCB would transmit information on each of these status reviews to TCEQ on a quarterly basis. Noncompliant producers would be referred to TCEQ under an existing process.

Beginning in fiscal year 2004, a TSSWCB Poultry Program Specialist was assigned to a field location in Nacogdoches County to assist with all aspects of the Poultry WQMP Program. Approximately 500 (33%) of the estimated 1495 poultry farms in Texas are located in Nacogdoches and Shelby counties. Approximately 79 (16%) of the existing farms in those two counties still need a WQMP developed. The specialist also assists other soil and water conservation districts with poultry WQMP development as needed. Additionally, in FY05, the TSSWCB has been provided funding for two new Natural Specialist III positions for statewide poultry operations who will be based at a new TSSWCB Poultry Office in Nacogdoches to further address the growing needs for poultry water quality management plans and coordinate with TCEQ on permitted facilities.

State appropriated grants in FY04 were made to the Hopkins-Rains SWCD and the Nacogdoches SWCD in East Texas for technical assistance in the Poultry WQMP Program for $250,000.00. State appropriated grants made to entities other than local districts in FY04 were two grants made to the USDA-Agricultural Service (ARS). The first grant was for $114,989.00 to conduct an investigation of nutrient loss mechanisms from land-applied poultry litter. The second grant was for $80,000.00 to conduct an investigation of additional tasks involving nutrient loss mechanisms from land-applied poultry litter.

The following is a summary of the status of farms needing a WQMP that we are currently aware of:

Date Due	Status	Number of Farms
1/1/2002	Not Signed-up	0
1/1/2002	Plans in Progress	1
1/1/2003	Not Signed-up	0
1/1/2003	Plans in Progress and/or Signed-up	3
1/1/2005	Not Signed-up	0
1/1/2005	Plans in Progress and/or Signed-up	8
1/1/2008	Not Signed-up	90
1/1/2008	Plans in Progress and/or Signed-up	29
Unknown	Not Signed-up	0
Unknown	Plans in Progress and/or Signed-up	35
N/A	Turkey Farms Not Signed-up	7 (6 of 7 assumed to be out of business)

N/A	Turkey Farms In Progress	0
Subtotal:		174
Unknown	Additional Gonzales area farms*	30

* One integrator in the Gonzales area has indicated approximately 30 farms that are or have been wet operations and required permits will now convert to dry operations and will need WQMPs.

NORTH BOSQUE RIVER WATERSHED INITIATIVE

In 1998 the North Bosque River (Segments 1226 and 1255) was included in the Texas CWA §303(d) List of impaired waters under narrative water quality standards related to nutrients and aquatic plant growth. In February 2001, the TCEQ adopted *Two Total Maximum Daily Loads for Phosphorus in the North Bosque River* for segments 1226 and 1255.

The TMDLs concluded that:

- Use of the two segments was "impaired" by high levels of nutrients.
- The nutrient of principal concern was soluble reactive phosphorus (SRP)
- Reduction of SRP of approximately 50% would reduce the potential for problematic algal growth in the river.
- The major controllable sources of nutrients in the North Bosque River basin were municipal wastewater treatment plants (WWTPs) and NPS pollution from dairy waste application fields (WAFs).

In December 2002, both the TCEQ and the TSSWCB adopted *An Implementation Plan for Soluble Reactive Phosphorus in the North Bosque River Watershed*. The four basic elements of phosphorus control identified in the plan were:

- Phosphorus application rates in WAFs.
- Reduced phosphorus diet for dairy cows to reduce the phosphorus content of dairy wastes.
- Removing approximately half of the dairy-generated manure from the North Bosque River watershed for use or disposal outside of the watershed.
- Effluent limits on phosphorus for municipal wastewater treatment plants.

Before and since the adoption of the Implementation Plan, the TSSWCB TMDL Program has been actively working on numerous projects and programs designed to assist the agricultural community in meeting its recommendations and requirements. All of the efforts explained in the following discussions are in support of the TMDL and the Implementation Plan.

State appropriated grants to entities other than local districts for projects in the North Bosque River were made to one project. That project was for $15,000.00 to Keith Broumley as financial assistance to conduct a Comprehensive Nutrient Management Plan to support the North Bosque River Anaerobic Digester Demonstration Project.

DAIRY MANURE EXPORT SUPPORT (DMES) PROGRAM

The TSSWCB initiated the Dairy Manure Export Support (DMES) program in an effort to bring an innovative solution to the problem of elevated phosphorus levels in the North Bosque and Leon River Watersheds. The DMES program offers financial incentives to commercial manure haulers to support the transport of raw manure from dairy farms in the North Bosque and Leon River Watersheds to commercial composting operations. The raw manure is then improved through a composting process so it may be put to beneficial use. Entities such as the Texas Department of Transportation and municipalities, as well as agricultural producers and the general public are some of the target purchasers of the composted product. The TCEQ, TSSWCB's partner in the overall regional program, provides rebates to these target purchasers to facilitate the development of a sustainable market. The export of this surplus manure (and the nutrients contained in the manure) will help address concerns regarding potential NPS water quality impacts associated with traditional on-farm land application of manure in the region.

Overall DMES program management is controlled through the TSSWCB. The TSSWCB has contracted everyday activities to the Texas Institute for Applied Environmental Research (TIAER) at Tarleton State University. In April 2001, TIAER subcontracted many aspects of the program to the Foundation for Organic Resources Management (FORM), which was replaced by imanage, LLC in July 2003. Through FORM, and later imanage, LLC, the DMES program has been managed at the local level through a DMES program office located in Stephenville, Texas. The TSSWCB has contracted TIAER to manage the program through August 31, 2004.

Participation requirements for dairies include being located in the North Bosque and/or Leon River Watersheds. Dairies must have (or have applied for) a TSSWCB–certified Water Quality Management Plan or a TCEQ water quality permit and an approved nutrient utilization plan. Each composting facility must be compliant with all state regulations regarding compost facilities and be approved for participation in TCEQ's Composted Manure Incentive Project (CMIP). Manure haulers must attend a workshop convened by the TSSWCB's contractor and obtain a vendor number from the Texas State Comptroller and authorize direct deposit.

Individual hauling jobs are coordinated through manure haulers that make arrangements with dairies and commercial composting operations. A manure hauler completes a job notification form, which is then submitted to the DMES office for approval. Once approval is received, the manure hauler performs the work and submits an invoice to the DMES office, which is signed by a representative of the dairy, accompanied by load tickets signed by a representative of the composting facility, and a scale ticket for each load. The DMES office prepares semi-monthly reimbursement request summaries, has them approved by TIAER, and then submits them to the TSSWCB for payment. Because the TSSWCB is using Clean Water Act §319(h) funding from the U.S. Environmental Protection Agency (EPA), the TSSWCB must then request that the funds be released from EPA to the TSSWCB. The TSSWCB then issues reimbursements via direct deposit to the manure haulers.

The initial target amount of manure to be exported from dairy farms participating in the program was 300,000 tons during a 36-month program period from October 2000 through October 2003. However, the program has continued to be funded and has resulted in more than 800,000 tons of raw manure being hauled to commercial compost facilities for export to locations outside of the North Bosque watershed. The TSSWCB anticipates the DMES Program will continue through August 2005 and possibly beyond if funding is available.

COMPREHENSIVE NUTRIENT MANAGEMENT PLAN (CNMP) PROGRAM

The TSSWCB Comprehensive Nutrient Management Planning (CNMP) Program was developed in response to a control measure recommended in the *Implementation Plan for the North Bosque River Total Maximum Daily Load for Soluble Reactive Phosphorus*. The implementation plan recommended that dairy producers in the watershed voluntarily develop and implement a CNMP, however, the Texas Commission on Environmental Quality (TCEQ) has recently adopted a rule that makes the recommendation a requirement. This program is confined to the North Bosque River Watershed by TSSWCB rule.

A CNMP is a resource management plan containing a grouping of conservation practices and management activities which, when combined into a conservation system, will help ensure that both agricultural production goals and natural resource concerns dealing with nutrient and organic by-products and their adverse impacts on water quality are achieved. A CNMP incorporates practices to utilize animal manure and organic by-products as a beneficial resource. The TSSWCB selected requirements for a CNMP based on the TCEQ rules and regulations required for permitted and unpermitted animal feeding operations and criteria outlined in the *Field Office Technical Guide (FOTG)*, a publication of the United States Department of Agriculture's Natural Resources Conservation Service (NRCS). The FOTG represents the best available technology and is already tailored to meet the needs of soil and water conservation districts all over the nation. To be certified by the TSSWCB, the local SWCD, the producer, and the local NRCS Field Office must approve a CNMP.

Although the TSSWCB adopted a set of technical criteria and program guidance that was customized for the specific resource concerns of the North Bosque watershed in 2002, recent changes to the technical requirements for permitted dairies under the TCEQ permitting program has resulted in the need for an update. The TSSWCB is currently working with the USDA-NRCS and TCEQ to develop updated criteria and guidance and anticipates it will be available in the Spring of 2005.

Water Quality Management Plan (WQMP) Program Implementation in the North Bosque Watershed

The regional offices are maintained around the state for the purpose of providing technical assistance to rural landowners interested in conserving natural resources and protecting water quality. The Dublin Regional Office is located within the North Bosque River Watershed, and has been providing service to the area since 1993. Since September 1, 2002 (three months prior to the adoption of the TMDL Implementation Plan), the TSSWCB has certified 40 WQMPs covering more than 8,500 acres in the watershed. As stated in the TMDL Implementation Plan, the TSSWCB is interested in working with SWCDs to get as many acres of land as possible under the scope of a nutrient management plan (nutrient management plans are required components of WQMPs that cover land receiving either commercial fertilizer or animal waste). The previously mentioned 40 WQMPs include more than 4,900 acres now within the scope of a nutrient management plan. They also include more than 2,400 acres scheduled for cover by improved vegetation under landowner/operator plans. Vegetation helps to prevent NPS pollution by absorbing nutrients and preventing erosion that can carry nutrients with sediment into the North Bosque River stream system.

CLEAN WATER ACT, §319(H) GRANT PROJECTS IN THE NORTH BOSQUE WATERSHED

Clean Water Act §319(h) Grant Program funding has been used extensively to assist in the development and implementation of the North Bosque River TMDL. Currently, seven CWA §319(h) are actively assisting the implementation of the North Bosque River TMDL. These are briefly described below.

Development of a Bacterial Source Tracking Library and Assessment of Bacterial Sources Impacting Lakes Waco and Belton

This project is a component of a larger statewide bacterial source-tracking (BST) program. This project includes Parsons Engineering Science, Inc., Texas Farm Bureau, Brazos River Authority, City of Waco, TSSWCB, and the Environmental Protection Agency as project partners.

Protection of our water resources is one of the most significant environmental challenges of the new millennium. Nonpoint sources (NPS) of pollution, especially from agricultural activities, can greatly impact water quality. One key component in effectively implementing a NPS pollution management program is the identification and assessment of sources of bacterial contamination, especially for impaired waterbodies on the Texas Clean Water Act §303(d) list. Proper evaluation of these sources is needed to develop microbial total maximum daily loads (TMDLs) and appropriate best management practices (BMPs). This information may also be useful to properly assess risk in contact recreation, as many waterborne pathogens causing human illness do not colonize nonhuman hosts.

Fecal coliform bacteria have extensively been used as an indicator of fecal pollution and the potential presence of other pathogenic microorganisms in water. It has been established that the fecal coliform bacterium *Escherichia coli* (*E. coli*) is more closely associated with fecal pollution than other fecal coliform bacteria, which may normally reside and multiply in the environment.

E. coli is a common inhabitant of animal and human intestines and recent studies have shown that isolates from humans and various host animals (e.g. cattle, chickens, and pigs) may differ genetically and phenotypically. Use of genetic and biochemical tests may allow the original host animal to be identified, referred to as bacterial source tracking (BST). Molecular tools appear to hold the greatest promise for BST, providing the most conclusive characterization and level of discrimination for isolates. Of the molecular tools available, ribosomal ribonucleic acid genetic fingerprinting (ribotyping) and pulsed-field gel electrophoresis (PFGE) are emerging as versatile and feasible BST techniques. A phenotypic characterization method, antibiotic resistance analysis, also has the potential to identify the human or animal origin of isolates. However, reference "libraries" of bacterial genetic fingerprints and antibiotic resistance profiles are needed to correctly identify the source of bacteria isolated from environmental water samples.

There are projects in progress at Lake Waco and Lake Belton, the San Antonio River and tributaries, Oyster Creek and a project planned for the greater Houston area. These projects have two general objectives: (1) to assess the water quality with regard to the relative contributions of fecal bacteria from bovine, human, and other animal contributions to the water bodies and (2) to develop local libraries, genetic and biochemical that can be used in determining the animal or human nonpoint fecal source contamination of surface water.

Field Validation of the Texas Phosphorus Index

This project is intended to determine the effects of selected soil properties in the North Bosque and Leon River Watersheds for measuring and predicting phosphorus runoff, as well as comparing and correlating different soil test and soil solution soluble phosphorus extracts to runoff phosphorus. The project, carried out by Texas Cooperative Extension, will also attempt to validate and/or modify the Texas Phosphorus Index as a predictive tool for classification of field sites relative to phosphorus loss potential. The information attained from these field studies will help validate and improve the Texas Phosphorus Index. With this information and additional studies similar to this across the state, quantitative assessments to predict the amount of phosphorus in runoff utilizing the Texas Phosphorus Index can be estimated. The runoff analyses will help determine the form of phosphorus, and whether it is mainly solution soluble or suspended. This will enable identification of appropriate best management practices to reduce the amount of phosphorus leaving fields, thus decreasing the amount of phosphorus reaching surface water resources. The Texas Phosphorus Index is an integral part of effective nutrient management planning.

Improving Water Quality by Developing, Implementing, and Field Testing Innovative Methods

This project, conducted by Texas Water Resources Institute, provides funding for the testing of new technologies designed for reducing water pollution associated with animal production systems, principally dairies. The focus is restricted to reducing phosphorus in dairy waste streams. Four technologies have already been selected, while the overall project is designed to accommodate two additional technologies yet to be determined. The four selected technologies include an electrocoagulation system, a polymer enhanced solids separation system, an aeration with microbubblers system, and a geotextile solids separation system. These technologies are tested and utilized in municipal waste treatment systems, dredging and sediment recovery from streams, and the oil and gas industry but they have not been adequately tested or demonstrated for treating animal waste. This is especially true for testing these technologies for the reduction of phosphorous from land applied liquid dairy manure in the Bosque River Watershed.

Edge-of-Field Monitoring of a Wastewater/Manure Management System Demonstration

This project will monitor and evaluate the phosphorus reduction capabilities of a state-of-the-art methane digester system installed on a dairy facility in the North Bosque River Watershed operating in conjunction with a TSSWCB-certified Comprehensive Nutrient Management Plan (CNMP). A multi-agency group including the Brazos River Authority, Texas Farm Bureau, and TCEQ is carrying out the overall methane digester project. Edge-of-field monitoring, funded by the TSSWCB and conducted by the Texas Institute for Applied Environmental Research, was initiated to determine the level of phosphorus reduction associated with the wastewater that has undergone treatment using methane digester technology and applied in accordance with the dairy's CNMP. Monitoring will occur on the liquid application fields used by the dairy operator to determine nonpoint source pollution (NPS) reductions.

Establishment of a Watershed Coordinator for the North Bosque River Watershed

The objectives of this project include identifying all pollution prevention projects and measures that are currently underway in the watershed, tracking the progress of these projects and measures, tracking rules and regulations that affect operations of entities in the watershed, reviewing water quality data for trend identification, providing opportunities for efficient and effective use of resources, and communicating through regularly scheduled stakeholder group meetings. Another objective of this project is to identify areas within the watershed that may not have received the attention necessary to reduce potentially detrimental impacts to water quality. The TSSWCB has contracted the Brazos River Authority to provide overall coordination of the project.

Athletic Field Topdressing as a Commercial Market for Compost from Dairy Manure

Composting of dairy manure and exporting of the compost out of the watershed have been advanced as a solution to the problem of the impaired water quality in the North Bosque River Watershed. The composting facilities have been established and the infrastructure to move manure from dairies to these facilities is in place. A high-volume market is needed that can afford the production and transportation costs of the compost. This project, carried out by the Leon-Bosque Resource Conservation and Development Council, seeks to develop that market by demonstrating the value of compost as a component to a premium blend of compost and sand.

TEXAS ATRAZINE INITIATIVE

BACKGROUND

Atrazine is a pre-emergent herbicide primarily used to control broadleaf and grassy weeds in corn and sorghum. Since it went on the market in 1958, it has become the most widely used herbicide in the United States.

It is classified as a restricted use herbicide due to its potential for groundwater contamination. Inconsistent with its restricted use designation, it is commonly found in W*eed and Feed* and other home and garden products, making it not only an agricultural issue, but an urban issue as well.

Atrazine, a chlorinated triazine herbicide, acts as a photosynthesis inhibitor. It is nontoxic to humans, having about the same toxicity as table salt. It has no adverse reproductive effects. It's not teratogenic or mutagenic. Only low levels of bioaccumulation may be expected in fish organs. It is nontoxic to birds and only slightly toxic to aquatic life.

Atrazine is, however, a possible human carcinogen (Class C). Due to this, a Maximum Contaminant Level (MCL) of 3 μg/L (micro-grams per liter) has been established for finished drinking water. A micro-gram would equate to 0.000,001 grams per liter of water.

Atrazine is persistent in the environment, having a field half-life of 60 days. It is moderately soluble in water and is not removed from drinking water by conventional water treatment methods. Activated carbon, ozonation, cation exchange, and UV treatment methods must be used to remove it from drinking water.

Because of its persistence, solubility, and widespread use, Atrazine is commonly found in surface water. A 1993-95 US Geological Survey (USGS) study of pesticides in urban and agricultural streams in the Trinity River Basin found Atrazine in 100% of samples from both sources. This suggests that Atrazine is both an agricultural and urban problem. The concentrations in the agricultural streams were, however, greater than the concentrations in the urban streams.

DEVELOPMENT OF THE TEXAS APPROACH

In Texas, testing of Atrazine in drinking water began in 1993. However, the method used only had a detection limit of 3 µg/L, and little detection was observed. In 1996, the state began using EPA (testing) Method 525.2, which has a much lower detection limit 0.065µg/L. Once the state began using this new (testing) method, numerous detections began appearing around the state in both surface and groundwater supplies. Between 1996 and 1999, Atrazine was detected in 69 water supplies around the state. In addition to drinking water monitoring, some raw water monitoring for Atrazine has been performed, but it has been infrequent and project specific.

In 1995, due to a detection of 9.6 µg/L in Marlin City Lake, the Marlin City Manager contacted the TCEQ-Source Water Assessment and Protection (SWAP) team for assistance. The City of Marlin and TCEQ-SWAP team then approached EPA for federal assistance. In 1996, Marlin City Lake was designated an EPA Region 6 Pilot Source Water Protection Program project.

To deal with the growing number of Atrazine detections around the state, TCEQ-SWAP formed an "Atrazine Steering Committee" in 1997 (later, the committee was renamed the "Surface Water Protection Committee). Committee membership consisted of the TSSWCB, the TDA, Texas A&M University, Novartis, the USDA- NRCS, the USDA-Agricultural Research Service (ARS), the Texas Farm Bureau, the Brazos River Authority, and municipal representatives. The committee's goal was to develop a strategy to address the numerous detections of Atrazine in drinking water in a proactive manner through BMP implementation and public education.

In 1998, nine reservoirs were listed as impacted by Atrazine on the §303(d) List. One of these, Aquilla Reservoir was listed as impaired by Atrazine. The running annual average at the Aquilla Water Supply District's treatment plant for the second quarter of 1997 through the first quarter of 1998 was 4.0 µg/L, violating the drinking water standard (3 µg/L) and triggering the listing of Aquilla Reservoir as an impaired water of the state. The other eight reservoirs, Lake Bardwell, Joe Pool Lake, Marlin City Lake, Lake Lavon, Lake Tawakoni, Richland Chambers Lake, Lake Waxahachie, and Big Creek Lake, were listed as threatened by Atrazine.

Following the listing of these reservoirs on the §303(d) List, the state began developing and implementing an initiative to remediate the Atrazine threats and impairments consisting of:

- Performing a standard TMDL in Aquilla Reservoir
- Building on the Source Water Protection Program in Marlin City Lake
- Performing targeted monitoring and implementing BMPs in the 7 threatened lakes

IMPLEMENTATION OF THE ATRAZINE INITIATIVE

The Aquilla TMDL was initiated in November 1998. It was a cooperative effort among the Texas Agricultural Experiment Station (TAES), Texas Cooperative Extension (TCE), Texas Department of Agriculture, Texas A&M University, TCEQ, TSSWCB, NRCS, Novartis, and local stakeholders. Over

$500,000 was provided for the Aquilla and Marlin projects through PPG funds, §§319(h), 604(b), Source Water Protection, TCEQ GR, and in-kind contributions. Stakeholder committees were formed for the Marlin and Aquilla projects. Training for pesticide applicators, demonstration of BMPs, and TEX*A*SYST was provided by the TAES in cooperation with the TCE. The Texas Agricultural Experiment Station conducted monitoring in the Aquilla and Marlin Watersheds. SWAT modeling of the watershed was completed as an in-kind contribution effort of NRCS, TDA, and TCEQ. Economic analyses of the implementation of BMPs on farms in both watersheds were also completed by the TAES.

The TMDL for Atrazine in Aquilla Reservoir was adopted by the TSSWCB and TCEQ in March 2001, and was revised in June 2002 in response to comments from the Environmental Protection Agency (EPA). The implementation plan was approved by the TSSWCB and TCEQ in January 2002. Region 6 of the EPA approved the TMDL on October 30, 2002.

The TMDL stated that a load reduction of approximately 25% would result in attainment of the water quality standards.

The environmental target set for measuring the success of the TMDL implementation plan is a running annual average concentration of Atrazine *in the reservoir* that does not exceed 3.0 μg/L for two consecutive years.

The TCEQ and the TSSWCB had the leadership roles for implementing the project, as well as for developing the TMDL. The key groups involved in implementing the plan at the local watershed level were agricultural producers and city governments. Regionally, the key partners were Aquilla Water Supply District, the Woodrow-Osceola Water Supply Corporation, the Hill County Appraisal District, and the Hill County-Blackland Soil and Water Conservation District. The Texas Cooperative Extension (TCE) and the Texas Department of Agriculture (TDA) also implemented aspects of the project. The U.S. Army Corps of Engineers, the federal agency that owns and operates the lake, also cooperated.

Since the source of the Atrazine was known, some activities were initiated before the TMDL and its implementation plan were complete. In 1998, the NRCS established the Aquilla EQIP Priority Area. From 1998-2003, the NRCS obligated over $2 million to implement BMPs in the Aquilla Watershed. Along with the EQIP funding, the TSSWCB initiated a §319 project in 1999 to provide cost-share and technical assistance through the Hill County-Blackland SWCD to encourage the implementation of BMPs in the Aquilla Watershed to reduce sediment and pesticide runoff from corn and sorghum farms.

In 1999, Aquilla area farmers formed a Producers Atrazine Action Committee. Meetings featured speakers on water quality topics and training on pesticide application. The Producers Committee developed a list of BMPs recommended for use in the watershed, and composed a questionnaire to document adoption of BMPs over time. In addition, the committee met with pesticide dealers to increase dealers' awareness of the problem and to gain their assistance. The practice to incorporate herbicides into the soil upon application was already adopted by about 33% of area producers at the end of the first year, and reached nearly 100% by the third year of the project.

In the seven threatened lakes, targeted monthly monitoring was conducted near water supply intakes to verify the level of impairment and provide baseline data for future actions. Texas A&M University conducted the analysis. Water quality sampling conducted by the TCEQ was used to measure the effectiveness of the practices. In addition, Syngenta, a private corporation that markets Atrazine, continued its voluntary pesticide-monitoring program with the area's public water suppliers.

Partners in the program include the TSSWCB, the TCEQ, the TDA, the TPWD, the Texas Agricultural Experiment Station (TAES), the TCE, and the federal Natural Resources Conservation Service (NRCS). Several other agencies and interested parties were involved, including the EPA, the Brazos River Authority, the Sabine River Authority, the Aquilla Water Supply District, and Syngenta (formerly Novartis), a private corporation.

Monitoring was completed in August 2003, with the exception of Bardwell and Lake Waxahachie. The City of Waxahachie continues to sample these lakes to obtain the needed 36 monthly samples.

Technical and financial assistance was provided to corn and sorghum farmers to implement BMPs in the seven lakes watersheds through 12 TSSWCB §319 projects funded by EPA, over $4.1 million in cost share and TA was provided to farmers through SWCDs. Demonstrations, monitoring, and modeling were also conducted through TSSWCB 319 projects to support and evaluate the implementation of BMPs in the seven threatened lakes. Through the TSSWCB 319 program, almost $4.6 million has been obligated to address the Atrazine issues in the seven threatened lakes.

In 2000, the Little River was listed as threatened by Atrazine. In response to this listing, the TSSWCB initiated two 319 projects in 2002 to provide technical and financial assistance to the area to address this threat. These efforts were continued in 2003 with the provision of additional funding. Over $1.1 million in 319 funding has been provided to encourage BMP implementation.

ATRAZINE INITIATIVE RESULTS – A SUCCESS STORY

As a result of the Atrazine Initiative, Atrazine concentrations in Aquilla Reservoir have been reduced to safe levels. Between 1998 and 2003, Atrazine concentrations in Aquilla Reservoir have been reduced by approximately 60%, to amounts lower than those required for treated drinking water. There have also been no Atrazine concentrations higher than the allowable amount at the Aquilla Water Supply District's drinking water treatment plant. Monitoring will be continued on a quarterly schedule to ensure that Atrazine concentrations remain at a safe level. The BMPs implemented to help reduce the level of Atrazine are under contract for five years and as long as they are maintained, the level of detectable Atrazine should remain below standards.

Monitoring by TCEQ indicates that Atrazine concentrations in five of the seven lakes have been reduced to levels that warrant their reclassification from threatened. Those lakes are now attaining their uses as a source for treated drinking water.

The other two lakes, Bardwell and Waxahachie Reservoirs, are still being monitored. However, trends in those two reservoirs indicate that they, too, will no longer be classified by the TCEQ as threatened within the next six months.

COASTAL MANAGEMENT PROGRAM

BACKGROUND

The Texas Coastal Management Program (CMP) was created to coordinate state, local, and federal programs for the management of Texas coastal resources. The program brings in federal Coastal Zone Management Act (CZMA) funds to Texas state and local entities to implement projects and program

activities for a wide variety of purposes. The Coastal Coordination Council (CCC) administers the CMP and is chaired by the Commissioner of the GLO. It comprises the chair or appointed representatives from the TPWD, the TCEQ, the TWDB, TxDOT, a member of the Texas State Soil and Water Conservation Board, a member of the RRC, the director of the Texas A&M University Sea Grant Program and four gubernatorial appointees. These members are selected to provide fair representation for all aspects concerning coastal issues.

The Council is charged with adopting uniform goals and policies to guide decision-making by all entities regulating or managing natural resource use within the Texas coastal area. The Council reviews significant actions taken or authorized by state agencies and subdivisions that may adversely affect coastal natural resources to determine their consistency with the CMP goals and policies. In addition, the Council oversees the CMP Grants Program and the Small Business and Individual Permitting Assistance Program.

The Coastal Zone Act Reauthorization Amendments (CZARA), Section 6217, requires each state with an approved coastal zone management program to develop a federally approvable program to control coastal nonpoint source pollution. The Texas CCC appointed a Coastal Nonpoint Source Pollution Control Program workgroup to develop this document. The National Oceanic and Atmospheric Administration and the U.S. Environmental Protection Agency jointly administer the program. In Texas, two agencies hold primary responsibility for the program's development and implementation: the Texas Commission on Environmental Quality and the TSSWCB.

Section 6217 calls for implementation of management measures (§6217(g) measures or (g) measures) that will control significant nonpoint sources of pollution to coastal waters. Six source categories are addressed by these measures: agriculture, forestry, urban and developing areas, marinas, wetland/riparian areas, and hydro modification. States can use voluntary approaches combined with existing state authorities to achieve implementation of management measures. However, if the voluntary mechanisms are not effective, states must have backup enforcement authorities in place to ensure that management measures are implemented.

Texas requested exclusion from the program for silviculture, rangeland, and dry land row crop agriculture from the northern boundary of the Coastal Bend Bays and Estuaries Program Area southward to the northern boundary of the Arroyo Colorado Watershed. The silviculture and rangeland exclusions were not allowed.

Texas submitted the Texas Coastal Nonpoint Source Pollution Control Program to EPA and NOAA in December 1998. In October 2000, Texas submitted the Texas Coastal NPS Control Program 15-year Program Strategy and FY 2001-2005 Implementation Plan.

Final findings were issued by NOAA/EPA in July 2003, which contained conditional approval of the program. The agricultural and silvicultural portions of the program were approved without conditions. In these findings, the dry land row crop exclusion was denied.

CURRENT STATUS

The TSSWCB is responsible for implementing the agricultural and silvicultural management measures of the program. The main mechanism we have for this is the State's cost-share program for implementing Water Quality Management Plans on farms and ranches through local soil and water conservation districts

(SWCD). For over five years, more than $300,000 of state funds has been spent annually in the coastal zone to provide cost-share to implement approximately 80 Water Quality Management Plans.

In addition to state funding, Texas receives §6217 funding from NOAA for implementing the Coastal Nonpoint Source Pollution Control Program. For the past several years, SWCDs in the Coastal Management Zone have received grants from NOAA's §6217 Implementation Funds to install agricultural management measures through the TSSWCB Water Quality Management Plan program. This has been very effective in expanding Texas' effort in carrying out the agricultural portion of its coastal nonpoint source program.

In March, NOAA issued final guidance for the program funds. As written, the guidance would no longer allow these funds to be used to implement agricultural best management practices on private lands unless a number of conditions are met. As a result, this funding will effectively not be available for SWCDs to implement agricultural management measures beginning in FY-06.
In addition, the FY05 NOAA budget was approved on November 20, and the Coastal Nonpoint Source Pollution Control Program funding was cut by 70%. The FY05 amount NOAA has to distribute is only $3 million. If Texas receives 3% of this amount, which it has in past yeas, the state will get only about $90,000.

In the meantime, our Water Quality Management Plan program in the coastal management zone continues.

Implementation of the silvicultural management measures in the coastal zone is through a CWA §319 grant from the TSSWCB to the Texas Forest Service.

INFORMATION TECHNOLOGY

Network Security Enhancement at Regional Office

In December 2004, agency staff began testing a major enhancement of security at agency regional offices. These offices have been traditionally managed in a Windows Workgroup model without the use of an authentication server. To increase security and provide a more centrally managed model, Workgroup authentication service will be added to each regional office network by adding the capability to an existing office server. This project will be completed using open source software components on existing hardware, resulting in no cost to the agency for software purchases, licensing or third-party support.

Conservation Program Database Application

The network specialist continued work from June 2004 – December 2004 on the development of a web-based database application to be used to track information related to the agency's conservation programs. This project will provide significant improvements in the efficiency, security, and usefulness of the agency's program data. The application should be available to agency staff during the next quarter. This project has been developed on and will be implemented using only open source software, resulting in no cost to the agency for software purchases, licensing or third-party support.

PUBLIC INFORMATION /EDUCATION REPORT FY04

GENERAL OVERVIEW

The purpose of the public information/education program is to provide leadership and coordination of information/education programs relating to the agency and district programs, services, operations and resources. The TSSWCB prepares and disseminates public information relative to the agency and district functions, programs, events and accomplishments for the public and to farmers and ranchers. TSSWCB staff coordinates seminars, conferences, workshops, displays at trade shows and training for district directors and district bookkeepers, conservation professionals, youth groups and other entities. Staff provides guidance to districts with their own individual information/education programs as well as regional and state information/education programs initiated by districts. Staff prepares and disseminates press releases, news stories and printed promotional products. The TSSWCB monitors the use of the publications and use of information. Staff represents the agency as needed with various information/education groups and entities. The TSSWCB has a cooperative agreement with the Association of Texas Soil and Water Conservation Districts to provide assistance and help coordinate district involvement and participation with Association's Information/Education Committee and its programs.

2004 SUMMER TEACHER WORKSHOPS

Several teacher workshops are held each summer for teachers interested in conservation and natural resource issues. The workshops are held in various parts of the state in cooperation with the TSSWCB. The Texas Environmental Education Advisory Committee to the Texas Education Agency approves the content of these workshops, sponsored by the TSSWCB. As an approved Environmental Education Professional Development Provider teachers are able to get credit hours toward their required continuing education units (CEUs), while experiencing nature and the outdoors.

Lower Sabine-Neches SWCD hosted a Teachers Workshop in China, Texas at the Texas A&M Rice Experiment Station on July 8, 2004 from 8:00am-3:00pm. The workshop included: Rice research, including fertilization, insect management, water management, rice varieties, and a demonstration of rice cooking qualities.

2004 TEXAS CONSERVATION AWARDS PROGRAM

Each year, the Texas State Soil and Water Conservation Board and the Association of Texas Soil and Water Conservation Districts co-sponsor the Texas Conservation Awards Program to recognize and honor those who dedicate themselves and their talents to the conservation and wise use of renewable natural resources. The 2004 Awards Program marked the 26th year of this joint program.

Local districts select their outstanding individuals as winners and submit them by mid-February each year for regional judging. Those selected as regional winners are honored each May at regional Awards Banquets. From these regional winners, a state winner is selected for the Outstanding Conservation Districts, Outstanding Conservation Teacher, Poster Contest, and the Essay Contest. These individuals are invited to the Annual State Meeting for recognition. The State Winners for 2004 were:

- Outstanding Conservation District – Victoria SWCD, Victoria, Bob McCan, Chairman.

- Outstanding Conservation Teacher – Joe Ray Burkett, Agricultural Science and Technology, Jacksboro High School, Jacksboro, Jack SWCD.

- Poster Contest – Jessica Anne Gerdes, Industrial junior High school, Lolita, Jackson SWCD.

- Essay Contest – Beth Bellew, Brackettville High School, Brackettville, West Nueces-Las Moras SWCD.

The conservation awards program provides competition and incentives to expand and improve conservation efforts, resource development, and increase the wise utilization of renewable natural resources. As a result, soil and water conservation districts, and both rural and urban citizens of Texas are benefited.

Soil and water conservation districts may enter their local recognition honorees in any of 10 categories (East Texas has an additional category of Forestry Conservationist), depending on appropriateness to the category description. For the youth of the district, there is also a poster and essay contest. The categories and a brief description of each are:

OUTSTANDING CONSERVATION DISTRICT

Awarded to the winning soil and water conservation district in each area for the most outstanding program during the past fiscal year.

RESIDENT CONSERVATION RANCHER

Awarded to the outstanding resident conservation rancher in each area. They **must** be a resident of the district, perform ranching activities within the district and be a cooperator with the district from which the entry was submitted. The rancher may have other business or professional interests.

RESIDENT CONSERVATION FARMER

Awarded to the outstanding resident conservation farmer in each area. They **must** be a resident of the district, perform farming activities within the district and be a cooperator with the district from which the entry was submitted. The farmer may have other business or professional interests.

ABSENTEE CONSERVATION FARMER/RANCHER

Awarded to the outstanding absentee conservation farmer or rancher in each area. They **must** reside **outside** the district, but operate farming or ranching activities within the district and be a cooperator with the district from which the entry was submitted. The person may have other business or professional interests.

WATER QUALITY MANAGEMENT PLAN

Awarded to the outstanding Water Quality Management Plan recipient in each area. They **must** be a district cooperator who has a district approved Water Quality Management Plan and has incorporated water quality into their farming or ranching activities and soil and water conservation work.

ESSAY CONTEST

Essays (topic: "The Living Soil") are to be submitted to local soil and water conservation districts for local judging. Each local district will judge the entries and submit three essays to the TSSWCB for competition on the area level. Plaques will be awarded to 1st, 2nd and 3rd place winners on the area level and state winners will be selected from the area winners. This contest is open to students, 18 years and younger, and does not jeopardize Texas University Interscholastic League eligibility.

POSTER CONTEST

Posters should address one of the following subjects: "Food for the Future" or "The Living Soil". Posters shall be submitted to local soil and water conservation districts for local judging. Each local district will judge the entries and submit three posters to the TSSWCB for competition on the area level. Plaques will be awarded to the 1st, 2nd and 3rd place winners on the area level and state winners will be selected from the area winners. This contest is open to students, 12 years and under, and does not jeopardize Texas University Interscholastic League eligibility.

BUSINESS/PROFESSIONAL INDIVIDUAL

Awarded to the outstanding man or woman in the business community who has rendered the most unselfish conservation service in each area. Representatives of the news media (radio, television, newspaper, magazines, etc) who contribute to or provide support for conservation shall also be considered eligible for this award. (This award is not for individual conservation practices or individuals who, because of employment, assist with or augment the work of the soil and water conservation district.)

CONSERVATION TEACHER

Awarded to the outstanding teacher of conservation in schools in each area. Teachers of all grade levels are eligible for this award.

WILDLIFE CONSERVATIONIST

Awarded to the outstanding wildlife conservationist in each area. They **must** be a district cooperator who has incorporated wildlife conservation into their farming and ranching activities.

CONSERVATION HOMEMAKER

Awarded to the outstanding conservation homemaker in each area. The homemaker and or family **must** own or operate a farm or ranch, be a district cooperator and have knowledge of the conservation programs being implemented.

CONSERVATION DISTRICT EMPLOYEE

Awarded to the outstanding soil and water conservation district employee who exhibits a degree of knowledge, skill, ability, and leadership that clearly results in superior job performance far above the basic requirements of the position.

FORESTRY CONSERVATIONIST (AREA IV ONLY)

Awarded to the outstanding forestry conservationist for the most outstanding farm forestry conservation program in the commercial forest areas of Texas. They **must** be a district cooperator or an individual who has implemented conservation practices on their land and has done missionary work for conservation and the district program.

SOIL & WATER STEWARDSHIP PUBLIC SPEAKING CONTEST

The Soil & Water Stewardship Public Speaking Contest is open to high school FFA students interested in conservation. The contest is aimed at broadening students' interest and knowledge of conservation and how individuals must depend on and take care of the world around them for survival. The contest is coordinated through the Texas FFA, with contests at the local, area and state level. Local winners compete in the 10 state FFA areas and those winners compete for the state title. The theme for the 2005 contest will be "Celebrate Conservation." Each year the state winner is invited to the Annual State Meeting of District Directors to deliver their presentation.

To prepare for the contest, students are to consult with their Agriculture Science teacher and work with their local soil and water conservation district. Students are encouraged to visit with their local SWCD to find out more about conservation practices in their area.

This project is a partnership between the Texas FFA, the Vocational Agriculture Teacher's Association of Texas, The Texas State Soil and Water Conservation Board, and the Association of Texas Soil and Water Conservation Districts. The 2004 regional winners were:

Britnee Brotherton, Floydada, Floyd County SWCD
Donna Mitchell, Lamesa, Dawson County SWCD (2004 State Winner)
Katerine Byrd, Katy, Harris County SWCD
Randi Roanhaus, Herrietta, Little Wichita SWCD
Jodi Holloway, Naaman Forest, Dalworth SWCD
Tony Viramontes, Gilmer, Upshur-Gregg SWCD
Brooke Adamson, Florence, Little River-San Gabriel SWCD
Cassie Padgett, Fairfield, Freestone SWCD
Kaitlyn Van Hees, Huntsville, Walker SWCD
Weston Wolff, Taft, San Patricio SWCD

The State Winner of the Soil and Water Stewardship Public Speaking Contest is invited to attend the Annual State Meeting each year and asked to deliver their winning address. This year's winner, Ms. Donna Mitchell, was selected as the State Winner July 13, 2004 as the area winners competed at the State FFA Convention in the Fort Worth Convention Center.

WILDLIFE ALLIANCE FOR YOUTH

The Wildlife Alliance for Youth (WAY) contests offer opportunities at the local district level for 4-H and FFA students to demonstrate their knowledge of the outdoors on wildlife habitat and management, wildlife laws, sportsmanship and other factual information on wildlife. The program offers scholarships to contest winners. It is a powerful tool for students to become involved in conservation and obtain an appreciation for wildlife.

Agriculture Science students, who compete in the WAY Contest, first acquire the foundational knowledge and skills for this event through the Agscience 381 - Wildlife and Recreation Curriculum. The WAY contests address the following nine subject areas in Wildlife and Recreation Management: Wildlife Plant Identification; Wildlife Plant Preferences; Wildlife Biological Facts; Wildlife Habitat; Habitat Management; Game Laws; Hunter and Boater Safety; Compass and Pacing; and Identification Techniques. Students should have an understanding of these subject areas before they compete.

The WAY contests are held in the five Texas State Soil and Water Conservation Board areas. Area IV (East Texas) holds their contest in October, which is the only contest held in the fall. Area V (North Central), Area I (Panhandle), Area II (West Texas) and Area III (South Texas) all hold their contests in April. Each team is certified to the area level by their local SWCD. The WAY State Contest is held each year in one of the geographical areas of the state. Over 200 high school students participated in the competition.

The TSSWCB is the lead agency in sponsoring and organizing the contests. The Association of Texas Soil and Water Conservation Districts, USDA- Natural Resources Conservation Service, Texas Parks and Wildlife Commission, Cooperative Extension service, and the Texas Education Agency, along with local soil and water conservation districts (SWCD), all partner in the success of the youth organization.

STATE WOODLAND CLINIC AND CONTEST

The Texas State Woodland Clinic and Contest is held annually in the month of April. It is a joint effort between local soil and water conservation districts, Stephen F. Austin University School of Forestry and the NRCS-USDA.

The contest is an opportunity for 4-H and FFA youth to demonstrate their expertise in different aspects of forestry management and skills in identification of needed practices and management techniques. Competition is between teams composed of four members representing either a 4-H Club or a FFA Chapter. Prior to the state contest several local districts conduct contests for 4-H Clubs and FFA Chapters within their district and the surrounding area.

The contest began in the late 1950s and was initiated by local SWCDs and timber industry personnel to develop forestry and woodland curriculum in schools in the commercial timber area of the state (East Texas Piney Woods). The clinic and contest have experienced widespread popularity and now has participation from outside of the commercial timber area on a regular basis. The state participation level for teams averages around 55 teams per year, with the vast majority of teams being composed of FFA Chapters. Winners at the state level are eligible to participate in the four states regional woodland contest held each May in one of four states. Texas, Louisiana, Arkansas and Oklahoma host the regional contest on a rotational basis.

REGIONAL WOODLAND CONTEST

The four states regional woodland contest is sponsored by soil and water conservation districts in each of the four states with program and technical support provided by USDA-NRCS and Resource Conservation and Development (RC&D), state organizations and industry personnel. The soil and water conservation districts in Texas hosted the first four states or southern regional woodland contest in 1984.

An attempt was made to expand this clinic and contest to a national level. However, that effort was dropped due to the wide diversity of forestry species and management practices across the nation.

Each state is allowed to send a maximum of six teams to the regional contest. Each state has a competition that determines the six teams from that state that may enter in the regional contest. Those teams may be composed of individuals representing either a 4-H Club or an FFA Chapter.

The 2005 regional clinic will be hosted by Oklahoma at Beaver Bend State Park.

CONSERVATION EDUCATION VIDEO LIBRARY

The Association of Texas Soil and Water Conservation Districts has established and updates a conservation related video library that is maintained by TSSWCB staff on their behalf for the benefit of local districts and educators. Currently there are over 180 conservation-related videos in the library available to districts and teachers. No rental fees are assessed to those wishing to borrow the videos from the library. Borrowing privileges are for a length of two weeks and must be returned upon date specified by the librarian. Videos can be ordered through your local soil and water conservation district or by contacting the TSSWCB. In 2004, 133 videos were loaned to various districts and teachers across the state.

CONSERVATION EDUCATION MODELS

The Nonpoint Source Pollution Watershed Flow Model and the Groundwater Flow Model allow students to understand how water supplies can become polluted from nonpoint sources through interactive demonstrations.

NONPOINT SOURCE (NPS) POLLUTION WATERSHED FLOW MODEL

The NPS model is a hands-on representation of a landscape that allows students to understand how water sources can become polluted from nonpoint sources. The plastic landscape structure has industrial, undeveloped, agricultural, and residential and roadway features complete with individual houses, trees, cars, tractors and cows. When "rain" falls on the model, the runoff flows into a city lake. Using various products to add color to the water, the model demonstrates how potential pollutants are picked up by run-off.

The model is a layout of a watershed that includes all the factors that may contribute to polluting our water. (Urban features such as: factories, parking lots, construction sites, lawn chemicals and golf courses and Rural features such as: forested land, dairies, feedlots, cropland and pastureland). To demonstrate how each type of potential pollutant can enter a water body Kool-Aid and cocoa are used to color “runoff”. Grape Kool-Aid is used to represent pollution from factories and oil from parking lots and roads. Orange Kool-aid represents pollution from lawn chemicals, golf courses, and cropland and pastureland chemicals. Cocoa is used to represent pollution from construction sites, forested land, dairies and feedlots. The Kool-aid and Cocoa are sprinkled on the model in the areas that represent each type of pollutant. Once all the pollutants are sprinkled on the model a spray bottle with water is use to represent rainfall. As the pollutants get wet and start to runoff the students can see how the water carries them to the streams and into the lake where we get our drinking water. Once all the pollutants have run into the lake the students can see how these factors have the potential to make surface waters unattractive and

unsafe. This demonstration leads to a discussion about how to protect the water quality and prevent our water from looking like the model.

GROUNDWATER FLOW MODEL

This model shows a cross-section of soil layers with a lake, a lagoon, and several wells represented. It uses a vacuum pump to make the water move through the soil layers and injection dyes to help visualize the flow of groundwater though soil and demonstrates how pollutants can travel in groundwater. The model demonstrates both percolation and the movement of groundwater due to pumping. Accompanied by an instructional video with tips on the setup, presentation and cleanup, the model is useful and easy to use.

BRUSH CONTROL PROGRAM

The 78th Legislature continued funding for the State Brush Control Program by providing $3,114,794 in General Revenue Funds in FY04 and $607,805 in General Revenue Funds in FY05. These funds were directed to be used for continuation of brush control projects designated by the Soil and Water Conservation Board. In addition the legislature granted the unexpended balance of FY03 Bond monies.

NORTH CONCHO

Cost share funding in the amount of $13,253,950 has been made available in the North Concho River watershed. Money as of November 9, 2004:

- 27,895.34 acres were under contract to be treated at a cost of $929,932.94
- $20,067.06 remained to be obligated
- 297,189.07 acres had been treated at a cost to the State of $12,014,172.94

PEDERNALES

Cost share funding in the amount of $4,025,323.19 has been made available in the Pedernales River Watershed. Money as of November 9, 2004:

- 57,003 acres were under contract to be treated at a cost of $3,848,048.85
- $177,274.39 remained to be obligated
- 55,854 acres had been treated at a cost to the State of $3,720,819.86

TWIN BUTTES

Cost share funding in the amount of $8,901,049.28 has been made available in the Twin Buttes Watershed.
Money as of November 9, 2004:

- 180,458.21 acres were under contract to be treated at a cost of $8,435,825.76
- $465,223.48 remained to be obligated
- 158,966.76 acres had been treated at a cost to the State of $7,538,913.30

LAKE BALLINGER

Cost share funding in the amount of $419,900.75 has been made available in the Lake Ballinger Watershed.
Money as of November 9, 2004:

- 8,187 acres were under contract to be treated at a cost of $395,043.75
- $24,857 remained to be obligated
- 6775.5 acres had been treated at a cost to the State of $320,655.25

OAK CREEK LAKE

Cost share funding in the amount of $1,095,765 has been made available in the Oak Creek Lake Watershed.
Money as of November 9, 2004:

- 16,535 acres were under contract to be treated at a cost of $800,146.7
- $25,710.27 remained to be obligated
- 15,114 acres had been treated at a cost to the State of $717,896.86

PECAN CREEK

Cost share funding in the amount of $323,887 has been made available in the Pecan Creek Watershed.
Money as of November 9, 2004:

- 11,982.42 acres were under contract to be treated at a cost of $319,726.57
- $3,862.50 remained to be obligated
- 11,982.37 acres had been treated at a cost to the State of $303,226.68

MOUNTAIN CREEK LAKE

Cost share funding in the amount of $95,542 has been made available in the Mountain Creek Watershed.
Money as of November 9, 2004:

- 1,616 acres were under contract to be treated at a cost of $79,359.07
- $9368.7 remained to be obligated
- 1,440 acres had been treated at a cost to the State of $70,033.32

CHAMPION CREEK LAKE

Cost share funding in the amount of $906,932 has been made available in the Champion Creek Watershed.
Money as of November 9, 2004:

- 17,438 acres were under contract to be treated at a cost of $868,887.00
- $38,045 remained to be obligated
- 13,359 acres had been treated at a cost to the State of $624,768.50

SPRING CREEK / DOVE CREEK PROJECT

Cost share funding in the amount of $1,146,275 has been made available in the Spring/Dove Watershed.
Money as of November 9, 2004:

- 29,766 acres were under contract to be treated at a cost of $1,052,999.04

- $93,275.96 remained to be obligated
- 27,326 acres had been treated at a cost to the State of $932,881.54

PECOS SALT CEDAR

Cost share funding in the amount of $525,976.75 has been made available in the Pecos Watershed. Money as of November 9, 2004:

- 8,390.2 acres were under contract to be treated at a cost of $438,205.50
- $140,218.75 remained to be obligated
    - 4948 ACRES HAD BEEN TREATED AT A COST TO THE STATE OF $258,367.25

UPPER COLORADO SALT CEDAR

Cost share funding in the amount of $52,447.50 has been made available in the Upper Colorado Watershed. Money as of November 9, 2004:

474 acres were under contract to be treated at a cost of $24,885.00
$0.00 remained to be obligated
0 acres had been treated at a cost to the State of $0.00

Update on following Activities

TSSWCB staff completed

- Certified 65 brush contracts.
- Completed 9 Brush Control Contracts
- Assisted James Powell tour with Bob McCann, President of Cattle Raisers, Bob Cook, Executive Director of TPW, Reed Stewart of the TSSWCB and Steve Manning with the Leon River Restoration Project.
- Assisted Drought Awareness tour.
- Presented updates at the Middle Concho and Colorado City SWCD meetings.
- Updated priority list for North Concho, Twin Buttes, Oak Creek, and Lake Ballinger.
- Prepared brush control reports/updates for Runnels, Middle Clear Fork, Coke County, Nolan, Tom Green, and Eldorado-Divide SWCD.
- Updated Pecos contract logs
- Reviewed Pecos Salt Cedar contracts.
- Discuss EQIP Salt Cedar contracts with Elisha Kuehn and Melony Sikes of the NRCS
- Assisted Devils River SWCD with Pecos River Salt Cedar Project.
- Reviewed methods and Effectiveness of fixed wing application with the City of San Angelo and TCEA.
- Assisted Toyah-Limpia SWCD with Pecos River Salt Cedar contracts
- Assisted Trans Pecos SWCD with Pecos River Salt Cedar contracts
- Assisted Upper Colorado SWCD with Salt Cedar Contracts
- Assisted Crockett County SWCD with Pecos River Salt Cedar Project

- Llano County Commissioner Court to review participation of the Llano County School Land
- Assisted with the State Meeting in Laredo
- Received training from Dr. Charlie Hart on spraying Salt Cedar on the Pecos

- Assisted Pedernales Brush Project with work group meeting in Johnson
- Reviewed Pecos Salt Cedar contracts for Upper Colorado SWCD, Crockett County SWCD, Trans Pecos SWCD and Devils River SWCD.

Texas State Soil and Water Conservation Board
Operating Statement
Report Period - September 1, 2003 - August 31, 2004

	Governmental Funds Total	Capital Asset/ Liability Adjustments	Statement of Activity
Revenues			
Legislative Appropriations			
Original Appropriations (GR)	$10,625,605.00	$ -	$10,625,605.00
Additional Appropriations(GR)	$ 577,586.78		$ 577,586.78
Taxes (GR)			
Federal Revenue (PR - Operating or Capital)			
Federal Grant Pass-Through Revenue (GR)	$ 3,946,490.00		$ 3,946,490.00
State Grant Pass-Through Revenue (GR)			
Licenses, Fees, & Permits (PR)			
Interest and Other Investment Income (PR)			
Interest and Other Investment Income (GR)			
Net Increase (Decrease) in Fair Value (PR)			
Net Increase (Decrease) in Fair Value (GR)			
Land Income (PR)			
Settlement of Claims (PR)			
Settlement of Claims (GR)			
Sales of Goods and Services (PR)			
Other (PR - Chg for Serv, Operating or Capital)			
Other (GR)	$ 189.00	$ -	$ 189.00
Total Revenues	$15,149,870.78	$ -	$15,149,870.78
Expenditures			
Salaries and Wages	$ 2,223,902.36	$ 41,749.44	$ 2,265,651.80
Payroll Related Costs	$ 619,937.23		$ 619,937.23
Professional Fees and Services			
Travel	$ 242,464.41		$ 242,464.41
Materials and Supplies	$ 105,006.78		$ 105,006.78
Communication and Utilities	$ 92,448.04		$ 92,448.04
Repairs and Maintenance	$ 10,979.59		$ 10,979.59
Rentals and Leases	$ 143,554.22		$ 143,554.22
Printing and Reproduction	$ 4,793.24		$ 4,793.24
Claims and Judgments			
Federal Grant Pass-Through Expenditures	$ 904,064.17		$ 904,064.17
State Grant Pass-Through Expenditures			
Intergovernmental Payments	$ 2,992,346.00		$ 2,992,346.00
Public Assistance Payments	$12,868,059.67		$12,868,059.67
Employee Benefit Payments			
Other Expenditures	$ 610,405.92		$ 610,405.92
Debt Service			
Depreciation Expense	$ -	$ 53,552.06	$ 53,552.06
Total Expenditures/Expenses	$20,817,961.63	$ 95,301.50	$20,913,263.13
Excess (Deficiency) Revenues over Expenditures*	$ (5,668,090.85)	$ (95,301.50)	$ (5,763,392.35)

* Encumbrances for FY03 were $12,538,623.32 accounting for expenditures exceeding revenues in FY04.

Texas State Soil and Water Conservation Board
Fund Financial Statement - Fund Balances
Report Period - September 1, 2003 - August 31, 2004

	Governmental Funds Total	Capital Asset/ Liability Adjustments	Statement of Activity
Fund Balance			
Beginning September 1, 2003	$15,231,959.48	$ -	$15,231,959.48
Net Change in Fund Balance	$ (5,668,090.85)		$ (5,668,090.85)
Lapsed Appropriations	$ (2,541,695.92)	$ (95,301.50)	$ (2,636,997.42)
Ending August 31, 2004	$ 7,022,172.71	$ (95,301.50)	$ 6,926,871.21
Government-Wide Statement of Net Assets			
Beginning September 1, 2003	$ 7,022,172.71	$ (95,301.50)	$ 6,926,871.21
Net Change in Net Assets	$ -	$ (51,481.01)	$ (51,481.01)
Ending August 31, 2004	$ 7,022,172.71	$ (146,782.51)	$ 6,875,390.20

TEXAS STATE SOIL & WATER CONSERVATION BOARD

SEMI - ANNUAL REPORT

TO THE

GOVERNOR,
LIEUTENANT GOVERNOR,
AND
SPEAKER OF THE HOUSE

JULY 1, 2005

FORWARD

In response to S.B. 1828 passed by the 78th Texas Legislature in Regular Session, 2003, the Texas State Soil and Water Conservation Board presents this review of its programs and activities. S.B. 1828 added §201.028 to the Texas Agriculture Code to provide that the TSSWCB shall prepare and deliver to the Governor, the Lieutenant Governor, and the Speaker of the House of Representatives a report, not later than January 1 and July 1 of each year, relating to the status of the budget areas of responsibility assigned to the State Board including outreach programs, grants made and received, federal funding applied for and received, special projects, and oversight of water conservation district activities.

The FY05 Operating Budget versus Expenditures is attached to this report. Information on grants made to local districts and other entities is incorporated within the program section it involves. Federal grants received for the Clean Water Act are provided in that section.

The Texas State Soil & Water Conservation Board takes pride in the accomplishments and remarkable progress that have been made in soil and water conservation in this state. Often environmental successes are slow to be realized. We have realized and already reported one success story that involves reducing the level of Atrazine in several water bodies, particularly the Aquilla Reservoir in the Hill County-Blackland SWCD.

However, we recognize there remains a continuing challenge and an ongoing need to ensure our land has the capability to produce food and fiber for future Texans. Because of changes in land use, ownership, technology, and population growth, the need for soil and water conservation programs will remain critical. Texas has a finite number of acres to provide for the needs and desires of citizens and visitors, and this places an ever-increasing demand on agricultural land. Farmers and ranchers face complex decisions concerning the best ways to manage and utilize the land available to them.

We believe that soil and water conservation programs must remain dynamic as land uses change and technology improves to make some conservation practices more capable of meeting demands on soil and water resources. We also maintain the belief that the purpose of the soil and water conservation program is to promote the wise use of our renewable natural resources and provide for the conservation and enhancement of the soil and water resources of this state through and by the dynamic decisions of local soil and water conservation districts which promotes the use of each acre of land within its capabilities and treating it according to its needs.

From the beginning, the Texas State Soil and Water Conservation Board and local soil and water conservation districts have formed an organizational framework through which various complex governmental conservation programs are delivered to local landowners and operators. This relationship has successfully been utilized to disseminate sound management techniques and practices to maintain individual productive land uses to provide for the needs of present and future generations.

To the landowners of Texas, the individual soil and water conservation district directors, and the many agencies and organizations assisting and working with our programs, we offer our sincere thanks.

Table of Contents

	Page
Historical Background	5
Organization	7
Staff	7
Soil And Water Conservation Districts	9
Annual State Meeting Of Soil And Water Conservation District Directors	11
Director Mileage And Per Diem	11
District Technical Assistance Funds	11
District Sub-Chapter H Funds	11
District Conservation Assistance Program	12
Programs & Activities Supporting The TSSWCB	12
Total Maximum Daily Load (TMDL) Program	12
Clean Water Act, §319(h) Grant Program	13
Water Quality Management Plan (WQMP) Program	17
Poultry Water Quality Management Plan (WQMP) Initiative	19
North Bosque River Watershed Initiative	22
Dairy Manure Export Support (DMES) Program	22
Comprehensive Nutrient Management Plan (CNMP) Program	24
Texas Atrazine Initiative	24
Background	24
Development of the Texas Approach	25
Implementation of the Atrazine Initiative	26
Atrazine Initiative Results – A Success Story	27
Coastal Management Program	28
Background	28
Current Status	29
Information Technology	29
Public Information /Education Report FY05	30
General Overview	30
2005 Summer Teacher Workshops	30
2005 Texas Conservation Awards Program	30
Outstanding Conservation District	31
Resident Conservation Rancher	31
Resident Conservation Farmer	31
Absentee Conservation Farmer/Rancher	32
Water Quality Management Plan	32
Essay Contest	32
Poster Contest	33
Business/Professional Individual	33
Conservation Teacher	33
Wildlife Conservationist	34
Conservation Homemaker	34
Conservation District Employee	34
Forestry Conservationist (Area IV only)	34

Soil & Water Stewardship Public Speaking Contest	35
Wildlife Alliance For Youth	35
State Woodland Clinic and Contest	36
Regional Woodland Clinic	36
Conservation Education Video Library	37
Conservation Education Models	37
Nonpoint Source (NPS) Pollution Watershed Flow Model	37
Groundwater Flow Model	37
Brush Control Program	38
TSSWCB FY05 Statement and Financial Statement	Atch 1
Ongoing 319 Projects	Atch 2

HISTORICAL BACKGROUND

In the early history of the United States, those involved in agriculture often did not consider the conservation of soil and water resources. Land was cleared and put into farm production. When the land quit producing at a profitable level, the farmers merely moved on to new land farther west and started the process over again. There was no need to be concerned with soil conservation, as there was a seemingly unlimited supply of virgin land waiting to be tilled. This process continued through the 1800s and into the early 1900s. With the outbreak of World War I, farmers in the Great Plains states were encouraged to break out native grassland to grow wheat and other foodstuffs to feed the nation and the world. As a result of these and other unwise management practices and the fact that the farmlands were experiencing long periods of drought, the 1930s produced some of the worst dust storms the nation had ever seen. Clouds of dust rolled across the plains states sending dust storms through the south and into the nation's capitol. At the same time, the nation was in the midst of a great economic depression. The federal government, seeking ways to put people back to work and encourage conservation, created the Civilian Conservation Corps and Soil Erosion Service. Through these mechanisms, demonstration projects were initiated to train technicians and to educate the public in ways to conserve soil resources. These programs were successful in putting people back to work, but lacked the local ties to establish lasting conservation programs.

One of the early day leaders in the national effort to control soil erosion was Hugh Hammond Bennett from North Carolina. After graduation from the University of North Carolina in 1903, Hugh Bennett took a job with the Bureau of Soils in the United States Department of Agriculture. Because of his experience, scientific knowledge and leadership ability, he was put in charge of the Soil Erosion Service when it was created in 1933. In 1935, P.L. (Public Law) 46 was passed creating the Soil Conservation Service within the U.S. Department of Agriculture and Hugh Bennett became the first Chief of the agency. He soon became internationally known for his accomplishments in conservation work.

With the help of Congressman Buchannan from Columbus, Texas, Hugh Bennett was able to persuade President Franklin Roosevelt that the soil resources of this nation were being wasted. He convinced the President that a Model Soil Conservation Act should be developed and sent to the governors of each state for passage by their state legislatures. The purpose of this Model Act would be to develop programs at the state and local level to control soil erosion.

In 1936, such a Model Act was sent to the governors with the endorsement of President Roosevelt. The Model Act, developed in Washington, was patterned after the Texas Wind Erosion Act, the Grass Conservation Acts in the Northern High Plains and certain water conservation district law.

In 1937 legislation was introduced in the Texas Legislature based on this Model Act. It is reported that as many as 25 different versions of this soil conservation law were considered before a final version was passed. There was much heated discussion of the proposed legislation. When the final version was adopted, the bill contained many undesirable features. The law would have set up Soil Conservation Districts automatically on a county basis and made County Commissioners Courts the governing body. A portion of the county tax was to be used to finance the program and county agricultural agents were to be the administrative officers.

A number of agricultural leaders from across the state had, by this time, become concerned about the newly passed legislation. It was their opinion that, if the responsibility for installing and maintaining conservation measures lay in the hands of the land owners, the control of such a program should also be

in their hands. As a result of these and other concerns, a group of landowners led by V.C. Marshall of Heidenheimer, Texas, convinced the Governor to veto the 1937 legislation.

Hard feelings among agricultural leaders resulted from the attempt to pass this soil conservation law. Under the leadership of Mr. Marshall, a concerted effort was made during the interim between legislative sessions to heal the old wounds and to put together a version of a law that would be generally accepted by the farmers and ranchers of Texas. Mr. Marshall organized a committee of leaders from across the state to promote the passage of a new Soil Conservation Law. He traveled many miles at his own expense seeking the views of agricultural leaders and promoting the idea of the Soil Conservation District Program.

The key points Mr. Marshall felt should be included in the new law were that (1) farmers and ranchers should determine whether or not a Soil Conservation District was needed and hold a local option election prior to the establishment of the district; (2) the program should be controlled by landowners; and (3) the Soil Conservation Districts should have no taxing authority or the power of eminent domain.

In 1939 the Texas Legislature passed H.B. (House Bill) 20 which incorporated those features and was the first Soil Conservation Law for the state. The law created the State Soil Conservation Board and allowed for the creation of the Soil Conservation Districts. Mr. Marshall was elected as the first Chairman of the Soil Conservation Board and later resigned to become the first Executive Director of the agency.

On April 30, 1940, the Secretary of the State issued Certificates of Organization for the first 16 Soil Conservation Districts paving the way for the program we now operate. Today, Texas has 217 local soil and water conservation districts that encompass more than 99% of the state.

As previously mentioned, the Model Act endorsed by President Roosevelt was in part patterned after the Texas Wind Erosion Act. Texas was already making attempts to address soil conservation as a result of the "Dust Bowl" days of the 1930s. The 44th Legislature in 1935 passed legislation authorizing the establishment of Wind Erosion Conservation Districts. This law provided for the creation of districts to "conserve the soil by prevention of unnecessary erosion caused by winds, and the reclamation of lands that have been depreciated or denuded of soil by reasons of winds." Although a number of Wind Erosion Control Districts were created, the passage of the Soil Conservation District Law in 1939 resulted in those districts becoming dormant.

In 1975, Governor Dolph Briscoe, by Executive Order, designated the TSSWCB as lead agency to assume the planning and management responsibility for control of agricultural and silvicultural nonpoint source pollution as required by the Federal Water Pollution Control Act.

In 1981 the 67th Legislature passed H.B. 1436, which for the first time codified the agricultural laws of Texas. Title 7, Chapter 201 of this code contains the portion pertaining to Soil and Water Conservation.

In 1985 the 69th Legislature passed S.B. 1083 creating a Brush Control Program in Texas and granting new powers and responsibilities, without funding, to the TSSWCB and Soil and Water Conservation Districts under Chapter 203 of the Agriculture Code. In 1999, the TSSWCB received its first appropriation in the FY00-01 biennium to control water-depleting brush and trees, such as cedar and mesquite. The program received $9.1 million to establish a pilot project in the North Concho Watershed.

In 1993, the 73rd Legislature passed S.B. 503 which named the TSSWCB the lead agency to address water quality issues relating to runoff from diffused, or nonpoint sources resulting from agricultural and forestry operations. In 1999, the Legislature expanded the TSSWCB's environmental mission and appropriated money to address water pollution from nonpoint sources under a separate, federally mandated program.

The leaders who framed the Texas Soil and Water Conservation Law in 1939 recognized that landowners and operators of private land constitute the basic resource for the conservation of our renewable natural resources. Without the support and willing participation of private landowners and operators in the development and implementation of soil and water conservation programs there is little hope of success. Local soil and water conservation districts led by farmers and ranchers who know the land and the local conditions and problems have the means to develop conservation plans that address each acre of land specific to its needs to solve or reduce the severity of its problems.

ORGANIZATION

Since inception, the TSSWCB has been governed by five board members, elected by delegates from each of five regions of the state's 217 local soil and water conservation districts. Elections occur annually at regional conventions of the local soil and water conservation districts, with members serving two-year staggered terms. However, with the enactment of S.B. 1828 by the 78th Legislature, two Governor appointees join the five elected board members to create a seven-member board. Currently the two Governor appointed positions remain unfilled. When appointed, the term of one member appointed by the Governor expires February 1 of each odd-numbered year, and the term of the other member appointed by the Governor expires on February 1 of each even-numbered year.

Elected State Board members must be 18 years of age or older; hold title to farmland or ranchland; and be actively engaged in farming or ranching. The Governor appointees must be actively engaged in the business of farming, animal husbandry, or other business related to agriculture and wholly or partly owns or leases land used in connection with that business; and may not be a member of the board of directors of a conservation district.

The State Board elects its own Chair and generally meets every odd month, unless specific programs or issues require more immediate action. The following list shows the current Board members and shows which State Board Region they represent.

Texas State Soil and Water Conservation Board

Member Name	Region	Term	Residence
Aubrey L. Russell	#1	May 3, 2005 – May 1, 2007	Panhandle
Reed Stewart	#2	May 4, 2004 – May 2, 2006	Sterling City
José O. Dodier, Jr.	#3	May 3, 2005 – May 1, 2007	Zapata
Jerry D. Nichols	#4	May 4, 2004 – May 2, 2006	Nacogdoches
W.T. "Dub" Crumley	#5	May 3, 2005 – May 1, 2007	Stephenville

STAFF

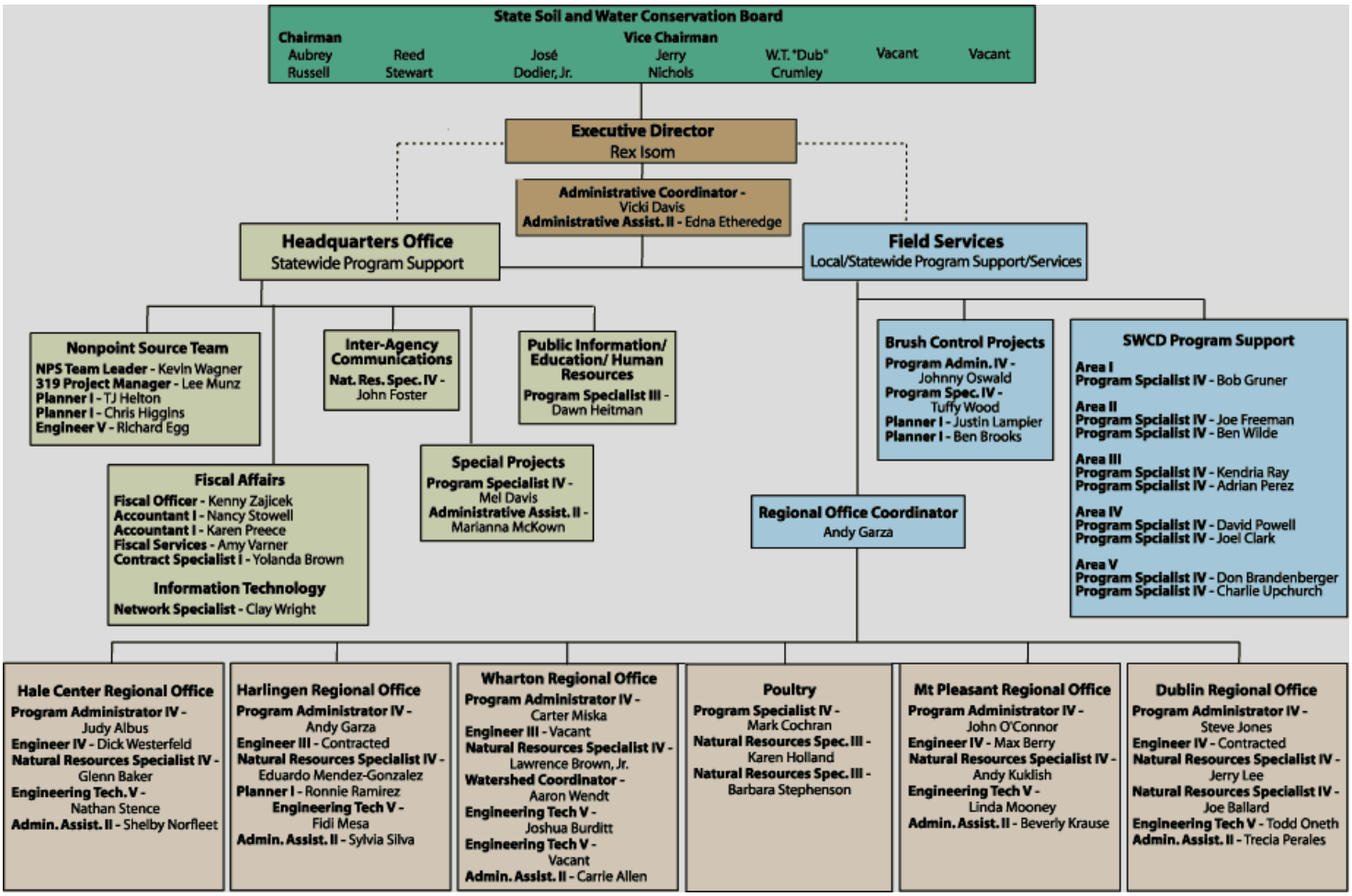
Mr. Rex Isom was named as the Executive Director in January 2004 and continues to carry out the directives of the State Board and directing staff efforts.

We emphasize our agency philosophy as stated in our Strategic Plan, "The State Soil and Water Conservation Board will act in accordance with the highest standards of ethics, accountability, efficiency, and openness. We affirm that the conservation of our natural resources is both a public and a private benefit, and we approach our activities with a deep sense of purpose and responsibility." Mr. Isom, as Executive Director, is leading the agency in that direction and expects all employees to follow that lead.

As of June 1, 2005 the TSSWCB employed 59 staff, 16 of which work in the Temple headquarters. The remaining 43 employees are field staff, either working out of their homes or located in seven satellite offices, five regional offices and two program specific offices, located throughout the state. Due to difficulty in recruiting engineers, two field engineer positions remain contracted. The following organization chart shows the agency's current structure.

The current structure of the TSSWCB now reflects efforts to place more personnel in the field and away from headquarters for a 73% to 27% ratio of Field personnel to Headquarters personnel.

The regional office staff along with the program specific staff provides on-site technical assistance to farmers and ranchers. The field staff serves as a liaison between the TSSWCB and local districts. The



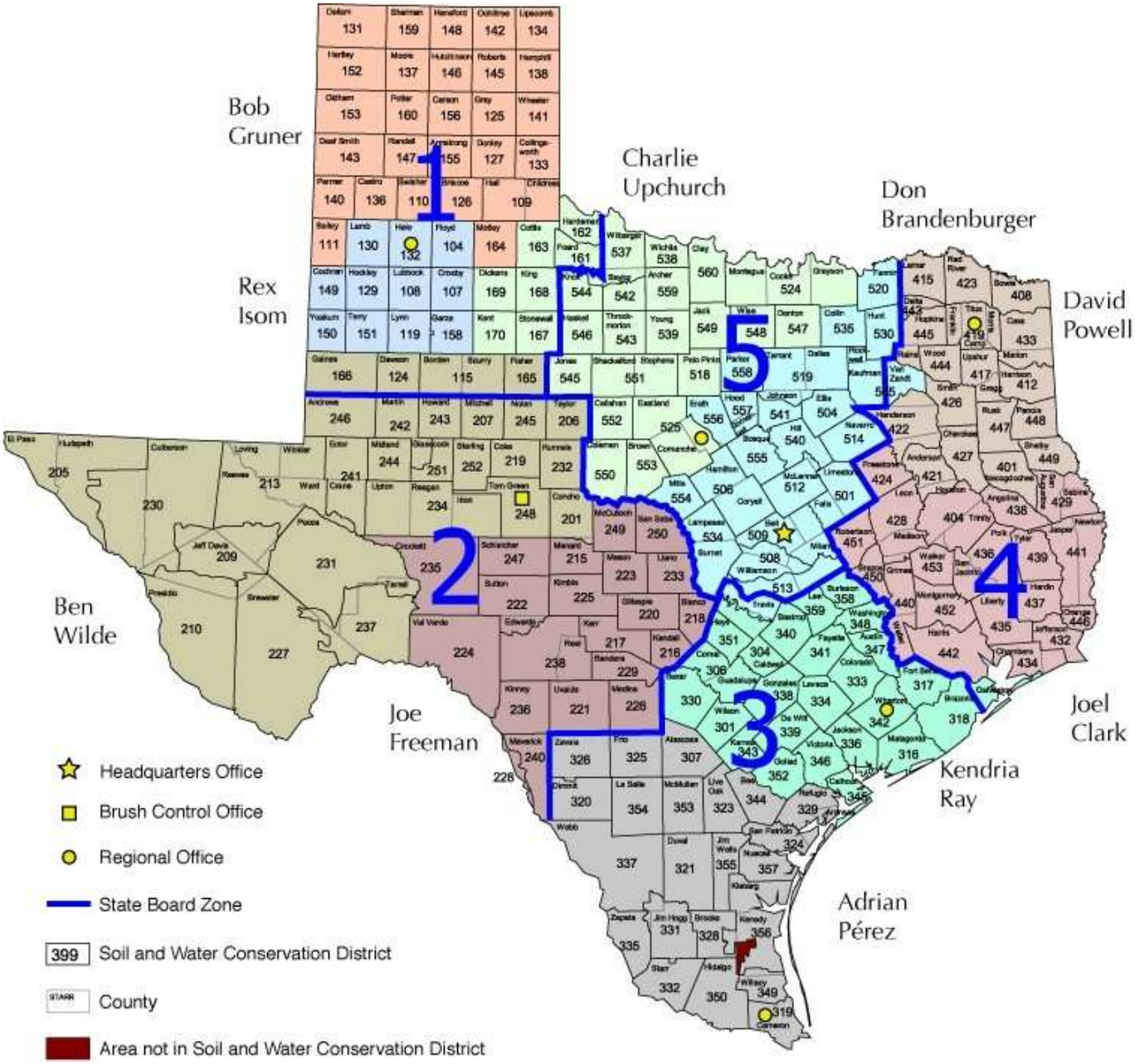
field staff also provides assistance to local districts and district employees concerning operations, programs, and activities. The regional office staff and the program specific staff coordinates with the Texas Commission on Environmental Quality (TCEQ), Texas Cooperative Extension (TCE), and the

USDA's Natural Resource Conservation Service (NRCS) to provide technical assistance to landowners on conservation projects.

SOIL AND WATER CONSERVATION DISTRICTS

The TSSWCB performs many of its activities in coordination with the state's 217 local soil and water conservation districts. These local districts are political subdivisions of the state, established through local option elections of agricultural landowners. Districts generally reflect county boundaries, but may also follow river basin or watershed boundaries, depending on the desires of the local landowners.

The following soil and water conservation district map shows the current 217 local districts that cover almost the entire state. That portion of the state not in a soil and water conservation district is in Kenedy County and contains the privately owned King Ranch. The map also shows the grouping of the districts into the five State Board Districts that respectively elect a State Board member and shows the field staff that is assigned to work with each district within a specific area.



Landowners within these local districts elect the five district directors that comprise the districts governing body or board of directors. This board of directors administers the programs and activities of the district. Representatives of the districts within each region then elect the members of the State Board through a series of convention style-elections.

Districts do not have taxing authority and rely on locally generated funds from various activities and programs, federal assistance, county assistance, and state assistance from the TSSWCB. The USDA Natural Resource Conservation Service (NRCS) provides most of the federal assistance available to districts and through cooperative agreements provides technical assistance to farmers and ranchers requesting assistance from the district.

ANNUAL STATE MEETING OF SOIL AND WATER CONSERVATION DISTRICT DIRECTORS

The Annual State Meeting of Soil and Water Conservation District Directors, required in §201.081, Texas Agriculture Code, convened in Laredo last October. There were 121 districts represented, with 248 individual district directors that registered for the meeting. The total registration was 660.

For the 2005 calendar year, the state meeting is scheduled for October 24-26 in Corpus Christi.

DIRECTOR MILEAGE AND PER DIEM

Due to the reductions in staff at the headquarters office, director mileage and per diem claims are now managed directly by districts. The TSSWCB sent each district 75% of their approved allocation (grant) on October 1, 2004. The remaining 25% will be used as a pool for any expenses not covered through the initial allocation (grant). Field staff will approve each claim before payment to ensure claims are accurate and comply with state statutes and guidelines. The FY05 state appropriation for this program is $325,000.00.

DISTRICT TECHNICAL ASSISTANCE FUNDS

Rider 4 of the TSSWCB 2004-2005 Appropriation revised the allocation method for technical assistance funds. On September 1, 2004, the TSSWCB authorized the payment of 25% of each district's approved allocation (grant). The remaining balance for each district allocation will be distributed on a reimbursement basis during the fiscal year as expenditures are incurred. The FY04 state appropriation for this program is $1,036,241.00.

DISTRICT SUB-CHAPTER H FUNDS

Sub-chapter H funds were appropriated to the TSSWCB from the Agricultural Soil and Water Conservation Account No. 563. Senate Bill 1053 enacted by the 78th Legislature moved the bond that funded Account No. 563 to the Texas Water Development Board (TWDB). Account No. 563 no longer exists and future funding for what was Sub-chapter H grants will come from the TWDB in the form of competitive Agricultural Water Conservation Grants. The TWDB adopted rules and developed a grant application process for distributing the funds from the fund. The TSSWCB, on behalf of districts, applied to the TWDB for grant funding. The Texas Water Development Board met June 16, 2004 to review applications and awarded the State Board a grant of $115,000.00 for agricultural water conservation to be carried out by districts.

The FY05 Agricultural Water Conservation Grants from TWDB were awarded last spring. The TWDB published Requests For Applications (RFA) in the December 31, 2004 issue of the *Texas Register* to initiate the process of considering funding water conservation projects this year. The TWDB allocated $100,00.00 for grants to state agencies. The grants are for agricultural water conservation programs for providing statewide technical assistance for irrigation water conservation practices and again will be carried out by districts.

DISTRICT CONSERVATION ASSISTANCE PROGRAM

District Conservation Assistance funds are appropriated to the TSSWCB from general revenue funds. Of the 217 local soil and water conservation districts, 216 districts request to receive an allocation (grant) from these funds. Local districts receive these funds as a dollar for dollar match for money that they generate locally through various activities. The local districts use this money to pay operational expenses. The FY04 state appropriation for this program is $916,364.00.

PROGRAMS & ACTIVITIES OF THE TSSWCB

The services and programs provided by the TSSWCB target rural Texas farmers and ranchers, but the results of these services benefit all Texans. For example, many of the flood control structures maintained by soil and water conservation districts serve to protect heavily populated areas from flood damage, and also prevent sediment from building up in suburban drinking water supplies. Another example is the use of best management practices, implemented through TSSWCB-certified water quality management plans, to prevent pesticides, nutrients, and other contaminants from impairing Texas waters.

The agency is responsible for numerous natural resource conservation efforts, the most prominent of which is serving as the lead state agency for the prevention, management, and abatement of nonpoint source pollution resulting from agricultural and silvicultural, or forestry-related, activities. As a result, the majority of the agency's programs and services aim to improve and protect water *quality*. The TSSWCB is also responsible for water conservation, or water *quantity*. The major existing program addressing water conservation is the Texas Brush Control Program, although the agency is conducting preliminary work on a new program that would provide assistance to Texas landowners who irrigate cropland from both ground and surface water sources. The Water Conservation Taskforce, created by Senate Bill 1094 from Senator Duncan, issued a final report to the Legislature recommending a state cost-share program be implemented through the TSSWCB to assist landowners in implementing best management practices that conserve water resources. If the agency is asked to fully develop the new program by the Legislature, it would likely be patterned after the Water Quality Management Plan Program created by Senate Bill 503 in 1993. Other responsibilities include prevention of soil erosion, control of floods, maintaining the navigability of waterways, the preservation of wildlife, protection of public lands, and providing information to landowners regarding the jurisdictions of the TSSWCB and the Texas Commission on Environmental Quality related to nonpoint source pollution. The TSSWCB has no regulatory functions; all of the agency's programs and services are voluntary in nature.

TOTAL MAXIMUM DAILY LOAD (TMDL) PROGRAM

Section §303(d) of the 1972 Federal Clean Water Act (CWA) requires all states to compile a list of water bodies that do not meet their designated uses and then to develop total maximum daily loads (TMDLs) for the particular pollutant(s) that is causing the impairment. Following the development of a TMDL, a state approved implementation plan is developed prescribing the measures needed to restore the polluted water bodies.

In Texas, the responsibility to develop TMDLs is shared between two state agencies: the Texas State Soil and Water Conservation Board (TSSWCB) and the Texas Commission on Environmental Quality (TCEQ). In general, the TCEQ is the lead agency for protecting Texas' water quality. However, TCEQ shares the responsibility for managing and abating nonpoint source pollution with the TSSWCB. The

TSSWCB is designated as the lead agency for agricultural and silvicultural nonpoint source pollution abatement while the TCEQ is the state's lead agency for urban nonpoint source pollution abatement and for point source discharge permitting through the Texas Pollutant Discharge Elimination System. As a result, any organization considering undertaking a TMDL project for a water body listed for an impairment due to agricultural or silvicultural nonpoint source pollution must coordinate efforts with the TCEQ and with the TSSWCB.

There are numerous watershed segments on the §303(d) List that involve agricultural nonpoint source (NPS) pollution and are targeted by TSSWCB Programs (i.e. CWA §319 and WQMP Programs) as funding becomes available. The TSSWCB has been actively involved in the implementation of 3 TMDLs (E.V. Spence Salinity TMDL, North Bosque River Nutrient TMDL, and Lake Aquilla Atrazine TMDL). The TSSWCB is also actively involved in the development of TMDLs for the following water bodies that have been identified as being impaired, at least in part, by agricultural activities:

- Buck Creek Bacteria TMDL
- Colorado River below E.V. Spence Salinity TMDL
- Arroyo Colorado River Dissolved Oxygen TMDL
- Oso Bay and Oso Creek Bacteria TMDL
- Oso Bay and Oso Creek Dissolved Oxygen TMDL
- Lower San Antonio River Bacteria TMDL
- Peach Creek Bacteria TMDL
- Elm and Sandies Creeks Bacteria and Dissolved Oxygen TMDL
- Atascosa River Bacteria TMDL
- Upper Oyster Creek Bacteria and Dissolved Oxygen TMDL
- Lake O' the Pines Dissolved Oxygen TMDL
- Leon River Bacteria TMDL

Nonpoint source pollution abatement measures are already being implemented in many of these areas using both CWA §319 funding and WQMP Program funds. These programs are described in detail in following sections.

Clean Water Act, §319(H) Nonpoint Source Grant Program

Background

Congress enacted Section 319(h) of the Clean Water Act in 1987, establishing a national program to control nonpoint sources of water pollution. Through Section 319(h), federal funds are provided through the EPA to states for the development and implementation of the State's Nonpoint Source Management Program. The 319(h) funding in Texas is divided evenly between the TCEQ and TSSWCB. The following report provides an overview of TSSWCB's 319(h) program status and major ongoing activities.

State Nonpoint Source Management Plan

An approved Management Plan is a requirement for receiving 319 Grant funding. The current Management Plan expired in January 2005. The NPS Management Program revision has received EPA approval and begun the Publications Review process at TCEQ. Upon completion of Publications Review, the document will be submitted to the Texas Register for Public Comment. Once all public comments are

addressed, the TSSWCB Board members and TCEQ Commissioners will review and formally approve the document for submittal to the Governor. The Attorney General will provide certification and the Governor's signature will finalize the document.

2004 Annual Report

In order to receive 319 funds, the State of Texas must also submit a Report on the Activities of the Texas NPS Pollution Program annually. The TCEQ develops the report on odd number years and the TSSWCB develops the report on even numbered years. Thus, the TSSWCB staff is responsible for preparing the FY 2004 Annual Report. The FY 2004 Annual Report has been completed and approved by EPA. It is currently available electronically under the following links: Programs, What's New, and Agency Reports at http://www.tsswcb.state.tx.us. Hard copies of the report can be obtained by contacting Marianna McKown at mmckown@tsswcb.state.tx.us.

Mid-Year Meeting With EPA

On June 6, 2005, the EPA conducted its end of year review of the TSSWCB. The primary purpose of this meeting was to update EPA on all current projects and activities. The TSSWCB is awaiting EPA's feedback.

Fiscal Year 2005 Grant Approval

The TSSWCB staff has finalized the FY 2005 grant package and submitted it to EPA on March 9, 2005. On May 6, 2005, the TSSWCB received verbal comments from EPA. Staff completed all revisions and delivered the final grant application to EPA on May 23, 2005. All projects received final approval from EPA on June 1, 2005. TSSWCB is awaiting EPA's award of the FY 2005 grant funds to initiate contracts. Contracts for all 12 FY 2005 projects (listed below) will be initiated on September 1, 2005.

Short Title	Lead Agency	Federal Request
Administration of 319 Program	TX Soil & Water Conservation Board	$189,180
Statewide NPS Mgt. Project	TX Soil & Water Conservation Board	$241,126
Ellis-Prairie Water Quality Project	Ellis-Prairie SWCD	$433,700
Silvicultural NPS Abatement	TX Forest Service	$574,521
Watershed Education	TX Cooperative Extension (TCE)	$358,041
Plan for tomorrow - PLAN	TCE & USDA-Ag Research Service	$210,002
Impact of Proper Fertilizer Mgt	TCE & USDA-Ag Research Service	$186,352
Peach Creek Water Quality Project	Gonzales County SWCD & TCE	$465,123
Lake Granger Assessment and Implementation Project	Little River-San Gabriel SWCD & Brazos River Authority	$814,168
BMP Education in Arroyo Watershed	TX Water Resources Institute	$103,959
Assessment of Ag NPS in Arroyo	Texas A&M - Kingsville	$212,600
WQMP Implementation in Arroyo	Southmost & Hidalgo SWCD	$970,478
Total FY 2005 Request		**$4,759,250**

Project Management

There are currently 62 ongoing 319 projects (Attachment II). The $24 million provided to these projects through the Clean Water Act, §319(H) Nonpoint Source Grant Program is being utilized for NPS from poultry operations and dairies, runoff of atrazine from cropland, salt cedar, watershed planning, groundwater quality improvement, assessing sources of bacteria, educational programs for the forest industry, and other implementation, education, and assessment projects (Figure 1). Quarterly reports for ongoing projects were received on January 15, 2005 and April 15, 2005. To date, project reports have been received for 100% of the projects. These reports are entered into EPA's Grant Reporting Tracking System. The TSSWCB also conducts financial audits on one 319 projects each quarter. To date, audits have been conducted on the ongoing 319 projects in the Shelby SWCD, Southmost SWCD, and Hidalgo SWCD. Project spotlights are provided below.

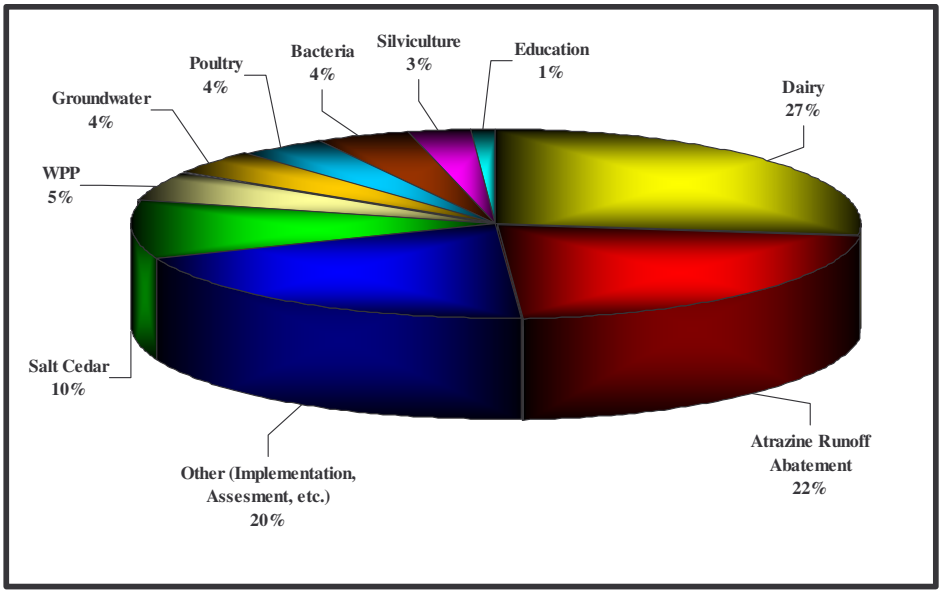


Figure 1.0 TSSWCB active state and federal 319(h) grants for FY 2000 – FY 2004.

Coordinated Watershed Protection Planning

Through this §319-funded project, launched in November 2004, the TSSWCB has initiated a pilot program providing guidance and technical assistance to local stakeholder groups in developing and implementing Watershed Protection Plans. Based on guidelines promulgated by EPA in 2003, these Watershed Protection Plans are designed to protect unimpaired surface waters from nonpoint source water pollution threats and restore impaired surface waters polluted by nonpoint source water pollution. These locally-driven Watershed Protection Plans serve as a mechanism for addressing complex water quality problems that cross multiple jurisdictions. Watershed Protection Plans serve as a tool to better leverage the resources of local governments, state and federal agencies, and non-profit organizations. Watershed Protection Plans integrate activities and prioritize projects based upon technical merit and benefits to the community, promote a unified approach to seeking funding, and create a coordinated public communication and education program.

The Regional Watershed Coordinator based in the TSSWCB's Wharton Regional Office, serves stakeholder groups in 47 counties in southeast and south central Texas comprising 40 Soil and Water Conservation Districts in State Districts III and IV. The first major step in this project has been the establishment of a Watershed Coordination Steering Committee meeting quarterly and composed of water quality monitoring and improvement partners from across the service area including other state agencies, federal agencies, river authorities, national estuary programs and councils of governments. Tasked with steering this project toward achievement of successful Watershed Protection Plan implementation and measurable water quality improvements, this committee provides guidance and direction to the Watershed Coordinator, most significantly identifying those watersheds most in need of coordinated watershed protection planning.

Other project goals supporting Watershed Protection Plan development include development of a watershed coordination website, identification of and application to funding sources to ensure successful implementation, identification and tracking of existing water quality improvement and pollution

abatement projects, review of water quality data for trend identification, facilitation of the use of new and emerging technologies beneficial in reducing water pollution, and assessment of the implementation status of existing management measures to facilitate increased participation.

Water Quality Management Plan (WQMP) Program

In 1993, the Texas Legislature passed Senate Bill 503 that directed the TSSWCB to implement Water Quality Management Plans (WQMPs) in Texas. The agency has implemented more than 6000 WQMPs since the inception of the program.

The WQMP Program is administered from five Regional Offices around the state. A poultry WQMP office will open in Nacogdoches in January 2005. The Regional Offices are:

- Dublin Regional Office
- Hale Center Regional Office
- Harlingen Regional Office
- Mount Pleasant Regional Office
- Wharton Regional Office
- Poultry Program Office (Nacogdoches - Coming in January 2005)

A WQMP is a site-specific conservation plan developed through (and approved by) SWCDs for agricultural or silvicultural lands. The plan includes appropriate land treatment practices, production practices, management measures, technologies or combinations thereof. The purpose of WQMPs is to achieve a level of pollution prevention or abatement determined by the TSSWCB, in consultation with local soil and water conservation districts, that is consistent with state water quality standards.

The TSSWCB selected requirements for a WQMP based on the criteria outlined in the *Field Office Technical Guide (FOTG)*, a publication of the United States Department of Agriculture's Natural Resources Conservation Service (NRCS).

Nutrient management must be included if nutrients are applied. If an animal feeding operation is involved (such as an unpermitted dairy), a WQMP will be planned with practices that individually or in combination with other practices will properly manage animal wastes. Waste utilization will be considered when agricultural wastes are applied. These WQMPs also have subcomponents for irrigation waters, erosion control, and are flexible enough to cater to a wide range of operating systems.

Agricultural and forestry landowners may enter into these cooperative agreements with their local district to control nonpoint source pollution from their operations. While the decision to develop a plan is voluntary, landowners have many reasons to do so. These plans provide for landowners to use best management practices in their operations to protect their most precious agricultural resources by controlling erosion, conserving water, and protecting water quality. In addition, certified plans have the same legal status as Texas Commission on Environmental Quality (TCEQ) point source pollution permits, without having to go through that agency's regulatory process. Landowners may also receive financial incentives to help pay for implementing these plans.

It should be noted that an animal feeding operation that is required by law to operate within the confines of a water quality permit issued by the TCEQ cannot participate in the TSSWCB program.

Water Quality Management Plans are especially useful for animal feeding operations. Depending on their size, animal feeding operations may be regulated by TCEQ as a point source or are unregulated and eligible for the TSSWCB's voluntary program. Generally, these feeding operations are classified according to the number of animals they have, calculated as "animal units"; however, TECQ has adopted rules that provide if you have or exceed a certain number of animals, you will be regulated. Animal feeding operations with more than the number of animals listed in TCEQ rules must apply for a permit. Most animal feeding operations in Texas are not large enough to require a permit, which makes this program critical to protecting Texas' water quality.

In developing the Water Quality Management Plan, the TSSWCB, SWCDs, and the USDA Natural Resources Conservation Service (NRCS) provide technical assistance to help the landowner meet the criteria of the plan. A plan establishes practices and installations on the farm that adhere to best management practices specific for that area. The various installations that a plan calls for depend on the operation. A farm may include a combination of cropland, dairy cows, poultry, hogs or cattle.

These plans may also include erosion control measures such as terraces or grass waterways; or they may address nutrient management to help landowners avoid over-fertilizing their land, or over-applying animal waste. Although a plan will take into consideration each farm's unique components, all WQMPs generally attempt to control erosion, conserve water, and protect water quality.

Upon TSSWCB certification of a WQMP, a landowner may apply for a financial incentive that will help pay for implementing the plan. Local districts have varying rates for sharing the cost of plan implementation, however cost-share may not exceed 75% with a maximum $10,000 grant limit per plan. Landowners receiving financial incentive have approximately three years to implement the provisions of the WQMP.

The TSSWCB allocates money to local districts for financial incentives based on whether the area has impaired water bodies as determined by TCEQ, or if the TSSWCB had previously designated it as a priority. Most of these financial incentives were appropriated from General Revenue funds. Some plans received financial incentives from federal funds. State appropriations provided to local districts in FY04 amounted to $2,171,740.00 to carry out a WQMP cost-share program in their district.

In addition to certifying WQMPs to ensure that they help abate nonpoint source pollution, the TSSWCB monitors WQMPs to ensure they are properly implemented. Each year, the TSSWCB conducts status reviews on a minimum of 10% of the plans. Additional technical assistance may be offered to a landowner when a WQMP is found noncompliant. In the unlikely case that the landowner does not achieve compliance with the WQMP, the TSSWCB may decertify the plan.

During FY03, the WQMP Program was administered from the TSSWCB office in Temple. The staff reductions in the FY04 budget made it necessary for the program to be reorganized and the Regional Offices are now administered from the Harlingen Regional Office. Additionally, plan certification authority was shifted from the Temple headquarters to each regional office. This change is already expediting the certification process and reducing postage expenditures, while maintaining the integrity and standards of the program.

The last adjustment involved the complaint process, which was also administered out of the headquarters office during FY03. Headquarters office no longer has an individual to do complaint inspections and all complaints are investigated from the appropriate Regional Office.

Current Status

As of 4-30-05, 606 water quality management plans have been certified statewide. The deadline for districts to obligate FY-05 cost-share funds was 4-30-05. Out of a total allocation of $1,946,000.00, approximately $1,694,000.00, or 87.1% of the total allocation, was obligated by the 4-30-05 deadline. A total of 375 plan status reviews are required to be completed during FY-05. To date, 365 reviews have been completed.

At the May, 2005 meeting, the State Board approved requests for supplemental cost-share funds for each of the 5 priority areas. The total amount approved by the State Board was $238,248.00.

In other action, the State Board granted 7 waivers as per section 523.6(e)(2)(E) of the cost-share rules that allow producers to apply for cost-share assistance more than once if the life span of the previously cost-shared practice has expired. The districts requesting the waivers will have to determine how to fund the applications for cost-share assistance.

One of the actions that the State Board took at their March, 2005 meeting was to direct the staff to conduct a thorough review of the S.B. 503 program. A committee was formed and convened on April 26-27, 2005, at the Temple headquarters. A summary that resulted from that meeting was prepared and reviewed with the Board on 5-19-05. Some of the recommendations contained in the summary and intended to enhance the program will be presented for approval to the Board at the July, 2005 meeting.

Poultry Water Quality Management Plan (WQMP) Initiative

In 1994, the Texas State Soil and Water Conservation Board (TSSWCB) began assisting poultry operations with the establishment of the Northeast Texas - Senate Bill 503 Cost-share Area. Since 1994, over $300,000 of WQMP Program funding has been provided annually to six soil and water conservation districts (SWCDs) in Northeast Texas to address animal feeding operations (AFOs).

In 1995, the TSSWCB initiated three Clean Water Act, §319(h) projects to demonstrate composting as a means for dead bird disposal, buffer strips, and proper land application of poultry litter. In 1996, the TSSWCB expanded its efforts by initiating a composting and marketing project. This effort to promote the installation of composters and other means of mortality management on poultry farms resulted in accelerated WQMP development.

In 1997, the Texas Legislature passed Senate Bill 1910, which required all poultry farms to have a TCEQ-approved method of dead bird disposal. The law took effect in March 1998. However, the rules were not adopted and did not take effect until fall 1999. It was during this time that requests for poultry-WQMPs significantly increased due to pursuit of cost-share for mandated mortality management. This activity intensified the TSSWCB's poultry initiative.

In response to water quality concerns and the initiation of TMDL development in the Big Cypress/Lake O' the Pines watershed in 1999, the TSSWCB began using §319 funds for cost-share in the area in addition to the Senate Bill 503 cost-share funds already directed to the watershed. Due to rising concerns

in nearby watersheds, the TSSWCB also included the Sam Rayburn and Toledo Bend Reservoir watersheds in its initiative in 1999. The TSSWCB expanded the poultry initiative again in 2001 to the Gonzales area.

All together, the TSSWCB has focused $5.3 million in §319 funding and over $3 million in state funding to assist poultry operations with abating NPS pollution in Texas. Four of the sixteen §319-funded projects are ongoing. Another $2.9 million in USDA-NRCS Environmental Quality Incentives Program (EQIP) funding was obligated to assist poultry producers in Northeast Texas and Gonzales County from 2000 to 2003.

The 77th Legislature, in 2001, passed Senate Bill 1339, which requires all poultry facilities in Texas to operate in accordance with a WQMP certified by the TSSWCB. The review and certification process assures the plan includes appropriate practices, management measures and schedules of implementation.

This law provides a staggered-schedule of deadlines by which each producer, depending on their initial date of operation, must have requested the development of a WQMP from their soil and water conservation district. Any poultry facility constructed after January 1, 2002 is required to have a WQMP prior to the receipt of any birds.

Since the effective date of the new law, the TSSWCB has identified 1498 total poultry farms, of which 1349 (90%) currently operate under a certified WQMP. The TSSWCB estimates that no farms need to request a WQMP before January 2005 and 49 farms before January 2008. The other estimated 100 farms have already requested a plan and those plans are in various stages of development. However, there is an ongoing challenge of identifying new poultry farms continually being constructed and put into production and locating other poultry farms not yet identified.

Since 2001, seven soil and water conservation district (SWCD) technicians have been employed under Federal Clean Water Act §319 contracts to develop WQMPs in poultry producing areas. Six of those contracts expired in 2004. The seventh expires in August 2005. An eighth §319 district technician was hired in 2003 ~~in~~ with the Shelby SWCD to conduct WQMP status reviews and that contract will expire in 2007. Two SWCD technicians were hired with funding from SB 1339 and those projects will expire in August 2006. As a result of expiring contracts, there has been a substantial reduction of available staff for developing new plans, conducting status reviews, and revising plans as needed. As currently scheduled, only 3 SWCD technicians will remain available to assist with WQMP development and review beginning with FY 2006.

Due to changes made by the U.S. Environmental Protection Agency (EPA) to the federal regulations for concentrated animal feeding operations (CAFOs), the Texas Commission on Environmental Quality (TCEQ) has adopted a rule change that requires dry-litter poultry operations larger than 125,000 or more broilers or pullets, 82,000 or more layers or breeders, or 55,000 turkeys to operate under a water quality permit. Prior to this change in the federal regulations, dry-litter poultry operations were not required to have a permit. The requirement for a permit becomes effective in April 2006. TSSWCB estimates between 200-500 poultry operations will require permits. The final CAFO Rule adopted by TCEQ recognizes that a poultry operator's existing WQMP meets the majority of the technical requirements required by a permit. The TSSWCB Staff is currently working on a new guidance document, Converting Water Quality Management Plans into Pollution Prevention Plans on Dry Litter Poultry Operations Requesting General Permit Coverage, to assist poultry producers in utilizing their existing WQMPs as a component to the general permit. TSSWCB will perform status reviews on 20% of the permitted

operations using WQMPs as a permit component, per year. TSSWCB will transmit information on each of these status reviews to TCEQ on a quarterly basis. Noncompliant producers will be referred to TCEQ under an existing process.

Beginning in fiscal year 2004, a TSSWCB Poultry Program Specialist was assigned to a field location in Nacogdoches County to assist with all aspects of the Poultry WQMP Program. Approximately 500 (33%) of the estimated 1495 poultry farms in Texas are located in Nacogdoches and Shelby counties. Approximately 84 (16%) of the existing farms in those two counties still need a WQMP developed. The specialist also assists other soil and water conservation districts with poultry WQMP development as needed. Additionally, in FY05, the TSSWCB has been provided funding for two new Natural Resource Specialist III positions for statewide poultry operations who are be based at a new TSSWCB Poultry Office in Nacogdoches to further address the growing needs for poultry water quality management plans and coordinate with TCEQ on permitted facilities.

The following is a summary of the status of farms needing a WQMP that we are currently aware of:

Date Due	Status	Number of Farms
1/1/2002	Not Signed-up	0
1/1/2002	Plans in Progress	0
1/1/2003	Not Signed-up	0
1/1/2003	Plans in Progress and/or Signed-up	2
1/1/2005	Not Signed-up	0
1/1/2005	Plans in Progress and/or Signed-up	2
1/1/2008	Not Signed-up	49
1/1/2008	Plans in Progress and/or Signed-up	60
Unknown	Not Signed-up	0
Unknown	Plans in Progress and/or Signed-up	33
N/A	Turkey Farms Not Signed-up	7(6 of 7 assumed to be out of business)
N/A	Turkey Farms In Progress	0
Subtotal:		153
Unknown	Additional Gonzales area farms*	30

* One integrator in the Gonzales area has indicated approximately 30 farms that are or have been wet operations and required permits will now convert to dry operations and will need WQMPs.

NORTH BOSQUE RIVER WATERSHED INITIATIVE

In 1998 the North Bosque River (Segments 1226 and 1255) was included in the Texas CWA §303(d) List of impaired waters under narrative water quality standards related to nutrients and aquatic plant growth. In February 2001, the TCEQ adopted *Two Total Maximum Daily Loads for Phosphorus in the North Bosque River* for segments 1226 and 1255.

The TMDLs concluded that:

- Use of the two segments was "impaired" by high levels of nutrients.
- The nutrient of principal concern was soluble reactive phosphorus (SRP)
- Reduction of SRP of approximately 50% would reduce the potential for problematic algal growth in the river.
- The major controllable sources of nutrients in the North Bosque River basin were municipal wastewater treatment plants (WWTPs) and NPS pollution from dairy waste application fields (WAFs).

In December 2002, both the TCEQ and the TSSWCB adopted *An Implementation Plan for Soluble Reactive Phosphorus in the North Bosque River Watershed*. The four basic elements of phosphorus control identified in the plan were:

- Phosphorus application rates in WAFs.
- Reduced phosphorus diet for dairy cows to reduce the phosphorus content of dairy wastes.
- Removing approximately half of the dairy-generated manure from the North Bosque River watershed for use or disposal outside of the watershed.
- Effluent limits on phosphorus for municipal wastewater treatment plants.

Before and since the adoption of the Implementation Plan, the TSSWCB TMDL Program has been actively working on numerous projects and programs designed to assist the agricultural community in meeting its recommendations and requirements. Clean Water Act §319(h) Grant Program funding has been used extensively to assist in the development and implementation of the North Bosque River TMDL. Currently, seven CWA §319(h) are actively assisting the implementation of the North Bosque River TMDL. All of the efforts explained in the following discussions are in support of the TMDL and the Implementation Plan.

State appropriated grants to entities other than local districts for projects in the North Bosque River were made to one project. That project was for $15,000.00 to Keith Broumley as financial assistance to conduct a Comprehensive Nutrient Management Plan to support the North Bosque River Anaerobic Digester Demonstration Project.

DAIRY MANURE EXPORT SUPPORT (DMES) PROGRAM

The TSSWCB initiated the Dairy Manure Export Support (DMES) program in an effort to bring an innovative solution to the problem of elevated phosphorus levels in the North Bosque and Leon River Watersheds. The DMES program offers financial incentives to commercial manure haulers to support the transport of raw manure from dairy farms in the North Bosque and Leon River Watersheds to commercial composting operations. The raw manure is then improved through a composting process so it may be put

to beneficial use. Entities such as the Texas Department of Transportation and municipalities, as well as agricultural producers and the general public are some of the target purchasers of the composted product. The TCEQ, TSSWCB's partner in the overall regional program, provides rebates to these target purchasers to facilitate the development of a sustainable market. The export of this surplus manure (and the nutrients contained in the manure) will help address concerns regarding potential NPS water quality impacts associated with traditional on-farm land application of manure in the region.

Overall DMES program management is controlled through the TSSWCB. The TSSWCB has contracted everyday activities to the Texas Institute for Applied Environmental Research (TIAER) at Tarleton State University. In April 2001, TIAER subcontracted many aspects of the program to the Foundation for Organic Resources Management (FORM), which was replaced by imanage, LLC in July 2003. Through FORM, and later imanage, LLC, the DMES program has been managed at the local level through a DMES program office located in Stephenville, Texas. The TSSWCB has contracted TIAER to manage the program through August 31, 2005.

Participation requirements for dairies include being located in the North Bosque and/or Leon River Watersheds. Dairies must have (or have applied for) a TSSWCB–certified Water Quality Management Plan or a TCEQ water quality permit and an approved nutrient utilization plan. Each composting facility must be compliant with all state regulations regarding compost facilities and be approved for participation in TCEQ's Composted Manure Incentive Project (CMIP). Manure haulers must attend a workshop convened by the TSSWCB's contractor and obtain a vendor number from the Texas State Comptroller and authorize direct deposit.

Individual hauling jobs are coordinated through manure haulers that make arrangements with dairies and commercial composting operations. A manure hauler completes a job notification form, which is then submitted to the DMES office for approval. Once approval is received, the manure hauler performs the work and submits an invoice to the DMES office, which is signed by a representative of the dairy, accompanied by load tickets signed by a representative of the composting facility, and a scale ticket for each load. The DMES office prepares semi-monthly reimbursement request summaries, has them approved by TIAER, and then submits them to the TSSWCB for payment. Because the TSSWCB is using Clean Water Act §319(h) funding from the U.S. Environmental Protection Agency (EPA), the TSSWCB must then request that the funds be released from EPA to the TSSWCB. The TSSWCB then issues reimbursements via direct deposit to the manure haulers.

The initial target amount of manure to be exported from dairy farms participating in the program was 300,000 tons during a 36-month program period from October 2000 through October 2003. However, the program has continued to be funded and as of May 31, 2005 more than 870,000 tons of raw manure have been hauled to commercial compost facilities for export to locations outside of the North Bosque watershed. It is estimated that this prevented the land application of approximately 2.8 million lbs of phosphorous.

Additional DMES funding to continue the hauling effort for another year has been provided by an appropriation of $152,000 from the 79th Legislature. These funds will be used as match for federal dollars provided by an EPA CWA §319(h) grant.

COMPREHENSIVE NUTRIENT MANAGEMENT PLAN (CNMP) PROGRAM

The TSSWCB Comprehensive Nutrient Management Planning (CNMP) Program was developed in response to a control measure recommended in the *Implementation Plan for the North Bosque River Total Maximum Daily Load for Soluble Reactive Phosphorus*. The implementation plan recommended that dairy producers in the watershed voluntarily develop and implement a CNMP, however, the Texas Commission on Environmental Quality (TCEQ) has recently adopted a rule that makes the recommendation a requirement. This program is confined to the North Bosque River Watershed by TSSWCB rule.

A CNMP is a resource management plan containing a grouping of conservation practices and management activities which, when combined into a conservation system, will help ensure that both agricultural production goals and natural resource concerns dealing with nutrient and organic by-products and their adverse impacts on water quality are achieved. A CNMP incorporates practices to utilize animal manure and organic by-products as a beneficial resource. The TSSWCB selected requirements for a CNMP based on the TCEQ rules and regulations required for permitted and unpermitted animal feeding operations and criteria outlined in the *Field Office Technical Guide (FOTG)*, a publication of the United States Department of Agriculture's Natural Resources Conservation Service (NRCS). The FOTG represents the best available technology and is already tailored to meet the needs of soil and water conservation districts all over the nation. To be certified by the TSSWCB, the local SWCD, the producer, and the local NRCS Field Office must approve a CNMP.

Although the TSSWCB adopted a set of technical criteria and program guidance that was customized for the specific resource concerns of the North Bosque watershed in 2003, recent changes to the technical requirements for permitted dairies under the TCEQ permitting program has resulted in the need for an update. The TSSWCB adopted an updated criteria and guidance document in May 2005.

TEXAS ATRAZINE INITIATIVE

BACKGROUND

Atrazine is a pre-emergent herbicide primarily used to control broadleaf and grassy weeds in corn and sorghum. Since it went on the market in 1958, it has become the most widely used herbicide in the United States.

It is classified as a restricted use herbicide due to its potential for groundwater contamination. Inconsistent with its restricted use designation, it is commonly found in W*eed and Feed* and other home and garden products, making it not only an agricultural issue, but an urban issue as well.

Atrazine, a chlorinated triazine herbicide, acts as a photosynthesis inhibitor. It is nontoxic to humans, having about the same toxicity as table salt. It has no adverse reproductive effects. It's not teratogenic or mutagenic. Only low levels of bioaccumulation may be expected in fish organs. It is nontoxic to birds and only slightly toxic to aquatic life.

Atrazine is, however, a possible human carcinogen (Class C). Due to this, a Maximum Contaminant Level (MCL) of 3 µg/L (micro-grams per liter) has been established for finished drinking water. A micro-gram would equate to 0.000,001 grams per liter of water.

Atrazine is persistent in the environment, having a field half-life of 60 days. It is moderately soluble in water and is not removed from drinking water by conventional water treatment methods. Activated carbon, ozonation, cation exchange, and UV treatment methods must be used to remove it from drinking water.

Because of its persistence, solubility, and widespread use, Atrazine is commonly found in surface water. A 1993-95 US Geological Survey (USGS) study of pesticides in urban and agricultural streams in the Trinity River Basin found Atrazine in 100% of samples from both sources. This suggests that Atrazine is both an agricultural and urban problem. The concentrations in the agricultural streams were, however, greater than the concentrations in the urban streams.

DEVELOPMENT OF THE TEXAS APPROACH

In Texas, testing of Atrazine in drinking water began in 1993. However, the method used only had a detection limit of 3 µg/L, and little detection was observed. In 1996, the state began using EPA (testing) Method 525.2, which has a much lower detection limit 0.065µg/L. Once the state began using this new (testing) method, numerous detections began appearing around the state in both surface and groundwater supplies. Between 1996 and 1999, Atrazine was detected in 69 water supplies around the state. In addition to drinking water monitoring, some raw water monitoring for Atrazine has been performed, but it has been infrequent and project specific.

In 1995, due to a detection of 9.6 µg/L in Marlin City Lake, the Marlin City Manager contacted the TCEQ-Source Water Assessment and Protection (SWAP) team for assistance. The City of Marlin and TCEQ-SWAP team then approached EPA for federal assistance. In 1996, Marlin City Lake was designated an EPA Region 6 Pilot Source Water Protection Program project.

To deal with the growing number of Atrazine detections around the state, TCEQ-SWAP formed an "Atrazine Steering Committee" in 1997 (later, the committee was renamed the "Surface Water Protection Committee). Committee membership consisted of the TSSWCB, the TDA, Texas A&M University, Novartis, the USDA- NRCS, the USDA-Agricultural Research Service (ARS), the Texas Farm Bureau, the Brazos River Authority, and municipal representatives. The committee's goal was to develop a strategy to address the numerous detections of Atrazine in drinking water in a proactive manner through BMP implementation and public education.

In 1998, nine reservoirs were listed as impacted by Atrazine on the §303(d) List. One of these, Aquilla Reservoir was listed as impaired by Atrazine. The running annual average at the Aquilla Water Supply District's treatment plant for the second quarter of 1997 through the first quarter of 1998 was 4.0 µg/L, violating the drinking water standard (3 µg/L) and triggering the listing of Aquilla Reservoir as an impaired water of the state. The other eight reservoirs, Lake Bardwell, Joe Pool Lake, Marlin City Lake, Lake Lavon, Lake Tawakoni, Richland Chambers Lake, Lake Waxahachie, and Big Creek Lake, were listed as threatened by Atrazine.

Following the listing of these reservoirs on the §303(d) List, the state began developing and implementing an initiative to remediate the Atrazine threats and impairments consisting of:

- Performing a standard TMDL in Aquilla Reservoir
- Building on the Source Water Protection Program in Marlin City Lake
- Performing targeted monitoring and implementing BMPs in the 7 threatened lakes

IMPLEMENTATION OF THE ATRAZINE INITIATIVE

The Aquilla TMDL was initiated in November 1998. It was a cooperative effort among the Texas Agricultural Experiment Station (TAES), Texas Cooperative Extension (TCE), Texas Department of Agriculture, Texas A&M University, TCEQ, TSSWCB, NRCS, Novartis, and local stakeholders. Over $500,000 was provided for the Aquilla and Marlin projects through PPG funds, §§319(h), 604(b), Source Water Protection, TCEQ GR, and in-kind contributions. Stakeholder committees were formed for the Marlin and Aquilla projects. Training for pesticide applicators, demonstration of BMPs, and TEX*A*SYST was provided by the TAES in cooperation with the TCE. The Texas Agricultural Experiment Station conducted monitoring in the Aquilla and Marlin Watersheds. SWAT modeling of the watershed was completed as an in-kind contribution effort of NRCS, TDA, and TCEQ. Economic analyses of the implementation of BMPs on farms in both watersheds were also completed by the TAES.

The TMDL for Atrazine in Aquilla Reservoir was adopted by the TSSWCB and TCEQ in March 2001, and was revised in June 2002 in response to comments from the Environmental Protection Agency (EPA). The implementation plan was approved by the TSSWCB and TCEQ in January 2002. Region 6 of the EPA approved the TMDL on October 30, 2002.

The TMDL stated that a load reduction of approximately 25% would result in attainment of the water quality standards.

The environmental target set for measuring the success of the TMDL implementation plan is a running annual average concentration of Atrazine *in the reservoir* that does not exceed 3.0 μg/L for two consecutive years.

The TCEQ and the TSSWCB had the leadership roles for implementing the project, as well as for developing the TMDL. The key groups involved in implementing the plan at the local watershed level were agricultural producers and city governments. Regionally, the key partners were Aquilla Water Supply District, the Woodrow-Osceola Water Supply Corporation, the Hill County Appraisal District, and the Hill County-Blackland Soil and Water Conservation District. The Texas Cooperative Extension (TCE) and the Texas Department of Agriculture (TDA) also implemented aspects of the project. The U.S. Army Corps of Engineers, the federal agency that owns and operates the lake, also cooperated.

Since the source of the Atrazine was known, some activities were initiated before the TMDL and its implementation plan were complete. In 1998, the NRCS established the Aquilla EQIP Priority Area. From 1998-2003, the NRCS obligated over $2 million to implement BMPs in the Aquilla Watershed. Along with the EQIP funding, the TSSWCB initiated a §319 project in 1999 to provide cost-share and technical assistance through the Hill County-Blackland SWCD to encourage the implementation of BMPs in the Aquilla Watershed to reduce sediment and pesticide runoff from corn and sorghum farms.

In 1999, Aquilla area farmers formed a Producers Atrazine Action Committee. Meetings featured speakers on water quality topics and training on pesticide application. The Producers Committee developed a list of BMPs recommended for use in the watershed, and composed a questionnaire to document adoption of BMPs over time. In addition, the committee met with pesticide dealers to increase dealers' awareness of the problem and to gain their assistance. The practice to incorporate herbicides into the soil upon application was already adopted by about 33% of area producers at the end of the first year, and reached nearly 100% by the third year of the project.

In the seven threatened lakes, targeted monthly monitoring was conducted near water supply intakes to verify the level of impairment and provide baseline data for future actions. Texas A&M University conducted the analysis. Water quality sampling conducted by the TCEQ was used to measure the effectiveness of the practices. In addition, Syngenta, a private corporation that markets Atrazine, continued its voluntary pesticide-monitoring program with the area's public water suppliers.

Partners in the program include the TSSWCB, the TCEQ, the TDA, the TPWD, the Texas Agricultural Experiment Station (TAES), the TCE, and the federal Natural Resources Conservation Service (NRCS). Several other agencies and interested parties were involved, including the EPA, the Brazos River Authority, the Sabine River Authority, the Aquilla Water Supply District, and Syngenta (formerly Novartis), a private corporation.

Monitoring was completed in August 2003, with the exception of Bardwell and Lake Waxahachie. The City of Waxahachie continues to sample these lakes to obtain the needed 36 monthly samples.

Technical and financial assistance was provided to corn and sorghum farmers to implement BMPs in the seven lakes watersheds through 12 TSSWCB §319 projects funded by EPA, over $4.1 million in cost share and TA was provided to farmers through SWCDs. Demonstrations, monitoring, and modeling were also conducted through TSSWCB 319 projects to support and evaluate the implementation of BMPs in the seven threatened lakes. Through the TSSWCB 319 program, almost $4.6 million has been obligated to address the Atrazine issues in the seven threatened lakes.

In 2000, the Little River was listed as threatened by Atrazine. In response to this listing, the TSSWCB initiated two 319 projects in 2002 to provide technical and financial assistance to the area to address this threat. These efforts were continued in 2003 with the provision of additional funding. Over $1.1 million in 319 funding has been provided to encourage BMP implementation.

ATRAZINE INITIATIVE RESULTS – A SUCCESS STORY

As a result of the Atrazine Initiative, Atrazine concentrations in Aquilla Reservoir have been reduced to safe levels. Between 1998 and 2003, Atrazine concentrations in Aquilla Reservoir have been reduced by approximately 60%, to amounts lower than those required for treated drinking water. There have also been no Atrazine concentrations higher than the allowable amount at the Aquilla Water Supply District's drinking water treatment plant. Monitoring will be continued on a quarterly schedule to ensure that Atrazine concentrations remain at a safe level. The BMPs implemented to help reduce the level of Atrazine are under contract for five years and as long as they are maintained, the level of detectable Atrazine should remain below standards.

Monitoring by TCEQ indicates that Atrazine concentrations in five of the seven lakes have been reduced to levels that warrant their reclassification from threatened. Those lakes are now attaining their uses as a source for treated drinking water.

The other two lakes, Bardwell and Waxahachie Reservoirs, are still being monitored. However, trends in those two reservoirs indicate that they, too, will no longer be classified by the TCEQ as threatened within the next six months.

COASTAL MANAGEMENT PROGRAM

BACKGROUND

The Texas Coastal Management Program (CMP) was created to coordinate state, local, and federal programs for the management of Texas coastal resources. The program brings in federal Coastal Zone Management Act (CZMA) funds to Texas state and local entities to implement projects and program activities for a wide variety of purposes. The Coastal Coordination Council (CCC) administers the CMP and is chaired by the Commissioner of the GLO. It comprises the chair or appointed representatives from the TPWD, the TCEQ, the TWDB, TxDOT, a member of the Texas State Soil and Water Conservation Board, a member of the RRC, the director of the Texas A&M University Sea Grant Program and four gubernatorial appointees. These members are selected to provide fair representation for all aspects concerning coastal issues.

The Council is charged with adopting uniform goals and policies to guide decision-making by all entities regulating or managing natural resource use within the Texas coastal area. The Council reviews significant actions taken or authorized by state agencies and subdivisions that may adversely affect coastal natural resources to determine their consistency with the CMP goals and policies. In addition, the Council oversees the CMP Grants Program and the Small Business and Individual Permitting Assistance Program.

The Coastal Zone Act Reauthorization Amendments (CZARA), Section 6217, requires each state with an approved coastal zone management program to develop a federally approvable program to control coastal nonpoint source pollution. The Texas CCC appointed a Coastal Nonpoint Source Pollution Control Program workgroup to develop this document. The National Oceanic and Atmospheric Administration and the U.S. Environmental Protection Agency jointly administer the program. In Texas, two agencies hold primary responsibility for the program's development and implementation: the Texas Commission on Environmental Quality and the TSSWCB.

Section 6217 calls for implementation of management measures (§6217(g) measures or (g) measures) that will control significant nonpoint sources of pollution to coastal waters. Six source categories are addressed by these measures: agriculture, forestry, urban and developing areas, marinas, wetland/riparian areas, and hydro modification. States can use voluntary approaches combined with existing state authorities to achieve implementation of management measures. However, if the voluntary mechanisms are not effective, states must have backup enforcement authorities in place to ensure that management measures are implemented.

Texas requested exclusion from the program for silviculture, rangeland, and dry land row crop agriculture from the northern boundary of the Coastal Bend Bays and Estuaries Program Area southward to the northern boundary of the Arroyo Colorado Watershed. The silviculture and rangeland exclusions were not allowed.

Texas submitted the Texas Coastal Nonpoint Source Pollution Control Program to EPA and NOAA in December 1998. In October 2000, Texas submitted the Texas Coastal NPS Control Program 15-year Program Strategy and FY 2001-2005 Implementation Plan.

Final findings were issued by NOAA/EPA in July 2003, which contained conditional approval of the program. The agricultural and silvicultural portions of the program were approved without conditions. In these findings, the dry land row crop exclusion was denied.

CURRENT STATUS

The TSSWCB is responsible for implementing the agricultural and silvicultural management measures of the program. The main mechanism we have for this is the State's cost-share program for implementing Water Quality Management Plans on farms and ranches through local soil and water conservation districts (SWCD). For over five years, more than $300,000 of state funds has been spent annually in the coastal zone to provide cost-share to implement approximately 80 Water Quality Management Plans.

In addition to state funding, Texas receives §6217 funding from NOAA for implementing the Coastal Nonpoint Source Pollution Control Program. For the past several years, SWCDs in the Coastal Management Zone have received grants from NOAA's §6217 Implementation Funds to install agricultural management measures through the TSSWCB Water Quality Management Plan program. This has been very effective in expanding Texas' effort in carrying out the agricultural portion of its coastal nonpoint source program.

In March 2004, NOAA issued final guidance for the program funds. The guidance will no longer allow these funds to be used to implement agricultural best management practices on private lands. As a result, federal funding will not be available for SWCDs to implement agricultural management measures beginning in FY06. In addition, the FY05 NOAA budget was approved in November 2004, and the Coastal Nonpoint Source Pollution Control Program funding was cut by 70%. The FY05 amount Texas received was only $112,000. The president's proposed budget for FY06 has no funding for coastal nonpoint source pollution control programs.

In the meantime, our Water Quality Management Plan program in the coastal management zone continues.

Implementation of the silvicultural management measures in the coastal zone is through a CWA §319 grant from the TSSWCB to the Texas Forest Service.

INFORMATION TECHNOLOGY

New Agency Security Policies

Working with guidance from the Department of Information Resources, the agency information resources manager developed a comprehensive set of new security policies to help safeguard the agency's IT infrastructure and its program data. These policies were also designed to ensure agency compliance with state law. The new policies went into effect May 1, 2005.

Conservation Program Database Application

The network specialist continued work from January 2005 – June 2005 on the development of a web-based database application to be used to track information related to the agency's conservation programs. This project will provide significant improvements in the efficiency, security, and usefulness of the agency's program data. Several features have been added to the original design of this application and have delayed its original target deployment date, but the application should be available to agency staff at the beginning of the 2006 fiscal year. This project has been developed on and will be implemented using an open source software stack, and will result in no cost to the agency for software purchases, licensing or third-party support.

Linux Desktop Evaluation
In April 2005 the network specialist began preparing for a limited trial of the open source Ubuntu Linux distribution at the agency's headquarters office. Faced with limited funds available to replace PCs that are at or past their expected life cycle, the agency is evaluating whether or not a freely available Linux desktop operating system can help maximize the use of available funds toward needed PC hardware. The open source software used in this project will not result in any cost due to software purchases or licensing.

PUBLIC INFORMATION /EDUCATION REPORT FY05

GENERAL OVERVIEW

The purpose of the public information/education program is to provide leadership and coordination of information/education programs relating to the agency and district programs, services, operations and resources. The TSSWCB prepares and disseminates public information relative to the agency and district functions, programs, events and accomplishments for the public and to farmers and ranchers. TSSWCB staff coordinates seminars, conferences, workshops, displays at trade shows and training for district directors and district bookkeepers, conservation professionals, youth groups and other entities. Staff provides guidance to districts with their own individual information/education programs as well as regional and state information/education programs initiated by districts. Staff prepares and disseminates press releases, news stories and printed promotional products. The TSSWCB monitors the use of the publications and use of information. Staff represents the agency as needed with various information/education groups and entities. The TSSWCB has a cooperative agreement with the Association of Texas Soil and Water Conservation Districts to provide assistance and help coordinate district involvement and participation with Association's Information/Education Committee and its programs.

2005 SUMMER TEACHER WORKSHOPS

Several teacher workshops are held each summer for teachers interested in conservation and natural resource issues. The workshops are held in various parts of the state in cooperation with the TSSWCB. The Texas Environmental Education Advisory Committee to the Texas Education Agency approves the content of these workshops, sponsored by the TSSWCB. As an approved Environmental Education Professional Development Provider teachers are able to get credit hours toward their required continuing education units (CEUs), while experiencing nature and the outdoors.

PerdanalesSWCD will host a Teachers Workshop in Johnson City, Texas at the Franklin Family Ranch on June 14-16, 2005.Topics will include Barren waste, water cycle, plants in the Texas hill country, wildlife biology, and prescribed burning.

2005 TEXAS CONSERVATION AWARDS PROGRAM

Each year, the Texas State Soil and Water Conservation Board and the Association of Texas Soil and Water Conservation Districts co-sponsor the Texas Conservation Awards Program to recognize and honor those who dedicate themselves and their talents to the conservation and wise use of renewable natural resources. The 2005 Awards Program marked the 27th year of this joint program.

Local districts select their outstanding individuals as winners and submit them by mid-February each year for regional judging. Those selected as regional winners are honored each May at regional Awards Banquets. From these regional winners, a state winner is selected for the Outstanding Conservation Districts, Outstanding Conservation Teacher, Poster Contest, and the Essay Contest. These individuals are invited to the Annual State Meeting for recognition.

The conservation awards program provides competition and incentives to expand and improve conservation efforts, resource development, and increase the wise utilization of renewable natural resources. As a result, soil and water conservation districts, and both rural and urban citizens of Texas are benefited.

Soil and water conservation districts may enter their local recognition honorees in any of 10 categories (East Texas has an additional category of Forestry Conservationist), depending on appropriateness to the category description. For the youth of the district, there is also a poster and essay contest. The categories, a brief description and the names of the first place winners for this year are:

OUTSTANDING CONSERVATION DISTRICT

Awarded to the winning soil and water conservation district in each area for the most outstanding program during the past fiscal year.

2005 Winners were:
Hockley County SWCD # 129
Pedernales SWCD #218
Webb SWCD #337
Bedias Creek SWCD #428
Upper Leon SWCD #525

RESIDENT CONSERVATION RANCHER

Awarded to the outstanding resident conservation rancher in each area. They **must** be a resident of the district, perform ranching activities within the district and be a cooperator with the district from which the entry was submitted. The rancher may have other business or professional interests.

2005 Winners were:
Pat and Debra Smith, Tierra Blanca SWCD #143
Sawyer Ranch, Edwards Plateau SWCD #222
Jose Ma. And Maria Eva U. Ramirez, Zapata SWCD #335
Turner O'Banion, Walker County SWCD #453
Robert Waller, Lower Clear Fork of the Brazos #551

RESIDENT CONSERVATION FARMER

Awarded to the outstanding resident conservation farmer in each area. They **must** be a resident of the district, perform farming activities within the district and be a cooperator with the district from which the entry was submitted. The farmer may have other business or professional interests.

2005 Winners were:
Ferrel D. Wheeler, Garza SWCD #158
Mitchell Jansa, Glasscock County SWCD # 251
Gary Cerny, Wharton County SWCD #342
Jerry and Joy Meador, Upshur-Gregg SWCD #417
Doskocil Brothers, Little River-San Grabriel SWCD # 508

ABSENTEE CONSERVATION FARMER/RANCHER

Awarded to the outstanding absentee conservation farmer or rancher in each area. They **must** reside **outside** the district, but operate farming or ranching activities within the district and be a cooperator with the district from which the entry was submitted. The person may have other business or professional interests.

2005 Winners were:
Mary Frazier Clark, Hockley County SWCD # 129
Dove Creek Ranch, Middle Concho SWCD # 234
La Rucia Ranch, Loma Blanca SWCD # 328
Mike Russell, Red River SWCD # 423
Kieth Brooks, Mills County SWCD #554

WATER QUALITY MANAGEMENT PLAN

Awarded to the outstanding Water Quality Management Plan recipient in each area. They **must** be a district cooperator who has a district approved Water Quality Management Plan and has incorporated water quality into their farming or ranching activities and soil and water conservation work.

2005 Winners were:
Ralph and Glen Kellermeier, Tom Green SWCD #248
Schmidt Brothers, Wharton County SWCD #342
John Ed Bland, Panola SWCD #448
Bobby and Kevin Downe, Wise SWCD # 548

ESSAY CONTEST –TWO CATEGORIES (THOSE 13 AND UNDER AND THOSE 14 TO 18 YEARS OF AGE)

Essays (topic: "Celebrate Conservation") are to be submitted to local soil and water conservation districts for local judging. Each local district will judge the entries and submit three essays to the TSSWCB for competition on the area level. Plaques will be awarded to 1st, 2nd and 3rd place winners on the area level and state winners will be selected from the area winners. This contest is open to students, in two categories, one for those ages 13 and under, and the other category for those ages 14 to 18 years of age and does not jeopardize Texas University Interscholastic League eligibility.

2005 First Place Winners in the Ages 13 and Under Category were:
Marley Schafer, Claude Junior High School, Claude, TX., Staked Plains SWCD #155
Max Miller, St. Mary's Catholic School, Fredericksburg, TX., Gillespie County SWCD #220
Preston Longhoff, St. Michael's School, Weimer, TX., Colorado SWCD #333
Shelby Thomas, Christian Heritage Academy, Gilmer, TX., Upshur-Gregg SWCD #417
Matt Pierce, Benjamin Junior High School, Benjamin, TX. Wichita-Brazos SWCD #544

2005 First Place Winners in the Ages 14 to 18 Years of Age Category were:
Lindsey Stein, Stratford High School, Stratford, TX, Sherman County SWCD #159
Sarah Crosby, San Saba High School, San Saba, TX, San Saba SWCD #250
Erin Marley, Brenham Christian Academy, Brenham, TX, Washington SWCD #348
James Michael Reichert, Chapel Hill High School, Mt. Pleasant, TX, Sulphur-CypressSWCD #419
Cody Carnes, Archer City High School, Archer City, TX, Archer County SWCD #559

POSTER CONTEST

Posters should address one of the following subjects: "Food for the Future" or "The Living Soil". Posters shall be submitted to local soil and water conservation districts for local judging. Each local district will judge the entries and submit three posters to the TSSWCB for competition on the area level. Plaques will be awarded to the 1st, 2nd and 3rd place winners on the area level and state winners will be selected from the area winners. This contest is open to students, 12 years and under, and does not jeopardize Texas University Interscholastic League eligibility.

2005 Winners were:
Damian de Santiago, Kirksey Elementary School, Booker, TX, Lipscomb SWCD #134
Leslie Rendon, Presidio Elementary School, Presidio, TX, Highland SWCD #210
Lucas Hernandez, Auswell/Tivoli Elementary School, Tivoli, TX, Copano Bay SWCD # 325
Bethany Pope, Madisonville Intermediate School, North School, North Zulch, TX, Bedias Creek #428
Ryan Johnston, Graham Junior High School, Graham, TX, Young SWCD #539

BUSINESS/PROFESSIONAL INDIVIDUAL

Awarded to the outstanding man or woman in the business community who has rendered the most unselfish conservation service in each area. Representatives of the news media (radio, television, newspaper, magazines, etc) who contribute to or provide support for conservation shall also be considered eligible for this award. (This award is not for individual conservation practices or individuals who, because of employment, assist with or augment the work of the soil and water conservation district.)

2005 Winners were:
Ron Thomason, Canyon, TX, Palo Duro SWCD #147
Lenna Newnam, Bandera, TX, Bandera SWCD #229
Joesph Potocek, III, Laredo, TX, Webb SWCD #337
Brian Rucker, Palestine, TX, Anderson-Houston SWCD #421
John Hull, Copperas Cove, TX, Hamilton-Coryell SWCD #506

CONSERVATION TEACHER

Awarded to the outstanding teacher of conservation in schools in each area. Teachers of all grade levels are eligible for this award.

2005 winners were:
Kim Williams, Levelland, TX, Hockley County SWCD #129
Carla Bearden, Mason, TX, Mason County SWCD #223
James Post, Bay City. TX, Matagorda County SWCD #316

Karen Abbey, Buffalo, TX, Freestone SWCD #424
Ben Ellebracht, Brownwood, TX, Pecan Bayou SWCD #553

WILDLIFE CONSERVATIONIST

Awarded to the outstanding wildlife conservationist in each area. They **must** be a district cooperator who has incorporated wildlife conservation into their farming and ranching activities.

2005 winners were:
Aiken Ranch L.P., Sweetwater, TX, Upper Clear Fork SWCD #165
Jon Preston, Menard County SWCD #215
Mr. & Mrs. Juan Medina, Zapata SWCD #335
Dr. J. W. Smith Jr., Red River SWCD #423
Randy Shipp, Hill Country SWCD # 534

CONSERVATION HOMEMAKER

Awarded to the outstanding conservation homemaker in each area. The homemaker and or family **must** own or operate a farm or ranch, be a district cooperator and have knowledge of the conservation programs being implemented.

2005 winners were:
Margaret Reed, Sherman County SWCD #159
Betty Lehr, Tom Green SWCD # 248
Marie Riemenschneider, Comal-Guadalupe SWCD #306

CONSERVATION DISTRICT EMPLOYEE

Awarded to the outstanding soil and water conservation district employee who exhibits a degree of knowledge, skill, ability, and leadership that clearly results in superior job performance far above the basic requirements of the position.

2005 winners were:
Ruby Owen, Bastrop County SWCD # 340: Caldwell-Travis SWCD #304: and Hays County SWCD # 351
Hilda DeSpain, Lower Trinity SWCD # 435. Theresa Strickler, Mills County SWCD # 554

FORESTRY CONSERVATIONIST (AREA IV ONLY)

Awarded to the outstanding forestry conservationist for the most outstanding farm forestry conservation program in the commercial forest areas of Texas. They **must** be a district cooperator or an individual who has implemented conservation practices on their land and has done missionary work for conservation and the district program.

2005 winner was:
Jack M. Sanders, Marshall, TX, Harrison County SWCD #412

SOIL & WATER STEWARDSHIP PUBLIC SPEAKING CONTEST

The Soil & Water Stewardship Public Speaking Contest is open to high school FFA students interested in conservation. The contest is aimed at broadening students' interest and knowledge of conservation and how individuals must depend on and take care of the world around them for survival. The contest is coordinated through the Texas FFA, with contests at the local, area and state level. Local winners compete in the 10 state FFA areas and those winners compete for the state title. The theme for the 2005 contest will be "Celebrate Conservation." Each year the state winner is invited to the Annual State Meeting of District Directors to deliver their presentation.

To prepare for the contest, students are to consult with their Agriculture Science teacher and work with their local soil and water conservation district. Students are encouraged to visit with their local SWCD to find out more about conservation practices in their area.

This project is a partnership between the Texas FFA, the Vocational Agriculture Teacher's Association of Texas, The Texas State Soil and Water Conservation Board, and the Association of Texas Soil and Water Conservation Districts. The 2005 regional winners were:

Britnee Brotherton, Floydada, Floyd County SWCD
Jordan Gregory, Lamesa, Dawson County SWCD
Meredith Timms, Katy, Harris County SWCD
Leeza Henderson, Quanah, Lower Pease River SWCD
Tara Smithwick, Krum, Denton County SWCD
Julia Nelson, Ore City, Upshur-Gregg SWCD
Joanna Hensley, Florence, Taylor SWCD
Wesley Dunlap, Riesel, McLennan SWCD
Julianna Bloodworth, Livingston, Polk-San Jacinto SWCD
Dustin Burke, Corpus Christi, Nueces SWCD

The State Winner of the Soil and Water Stewardship Public Speaking Contest is invited to attend the Annual State Meeting each year and asked to deliver their winning address. This year's winner will be selected on July 12, 2005 at the State FFA Convention to be held in Lubbock..

WILDLIFE ALLIANCE FOR YOUTH

The Wildlife Alliance for Youth (WAY) contests offer opportunities at the local district level for 4-H and FFA students to demonstrate their knowledge of the outdoors on wildlife habitat and management, wildlife laws, sportsmanship and other factual information on wildlife. The program offers scholarships to contest winners. It is a powerful tool for students to become involved in conservation and obtain an appreciation for wildlife.

Agriculture Science students, who compete in the WAY Contest, first acquire the foundational knowledge and skills for this event through the Agscience 381 - Wildlife and Recreation Curriculum. The WAY contests address the following nine subject areas in Wildlife and Recreation Management: Wildlife Plant Identification; Wildlife Plant Preferences; Wildlife Biological Facts; Wildlife Habitat; Habitat Management; Game Laws; Hunter and Boater Safety; Compass and Pacing; and Identification Techniques. Students should have an understanding of these subject areas before they compete.

The WAY contests are held in the five Texas State Soil and Water Conservation Board areas. Area IV (East Texas) holds their contest in October, which is the only contest held in the fall. Area V (North Central), Area I (Panhandle), Area II (West Texas) and Area III (South Texas) all hold their contests in April. Each team is certified to the area level by their local SWCD. The WAY State Contest is held each year in one of the geographical areas of the state. Over 200 high school students participated in the competition.

The TSSWCB is the lead agency in sponsoring and organizing the contests. The Association of Texas Soil and Water Conservation Districts, USDA- Natural Resources Conservation Service, Texas Parks and Wildlife Commission, Cooperative Extension service, and the Texas Education Agency, along with local soil and water conservation districts (SWCD), all partner in the success of the youth organization.

STATE WOODLAND CLINIC AND CONTEST

The Texas State Woodland Clinic and Contest is held annually in the month of April. It is a joint effort between local soil and water conservation districts, Stephen F. Austin University School of Forestry and the NRCS-USDA.

The contest is an opportunity for 4-H and FFA youth to demonstrate their expertise in different aspects of forestry management and skills in identification of needed practices and management techniques. Competition is between teams composed of four members representing either a 4-H Club or a FFA Chapter. Prior to the state contest several local districts conduct contests for 4-H Clubs and FFA Chapters within their district and the surrounding area.

The contest began in the late 1950s and was initiated by local SWCDs and timber industry personnel to develop forestry and woodland curriculum in schools in the commercial timber area of the state (East Texas Piney Woods). The clinic and contest have experienced widespread popularity and now has participation from outside of the commercial timber area on a regular basis. The state participation level for teams averages around 55 teams per year, with the vast majority of teams being composed of FFA Chapters. Winners at the state level are eligible to participate in the four states regional woodland contest held each May in one of four states. Texas, Louisiana, Arkansas and Oklahoma host the regional contest on a rotational basis.

REGIONAL WOODLAND CONTEST

The four states regional woodland contest is sponsored by soil and water conservation districts in each of the four states with program and technical support provided by USDA-NRCS and Resource Conservation and Development (RC&D), state organizations and industry personnel. The soil and water conservation districts in Texas hosted the first four states or southern regional woodland contest in 1984.

An attempt was made to expand this clinic and contest to a national level. However, that effort was dropped due to the wide diversity of forestry species and management practices across the nation.

Each state is allowed to send a maximum of six teams to the regional contest. Each state has a competition that determines the six teams from that state that may enter in the regional contest. Those teams may be composed of individuals representing either a 4-H Club or an FFA Chapter.

The 2005 regional clinic was hosted by Oklahoma at Beaver Bend State Park.

CONSERVATION EDUCATION VIDEO LIBRARY

The Association of Texas Soil and Water Conservation Districts has established and updates a conservation related video library that is maintained by TSSWCB staff on their behalf for the benefit of local districts and educators. Currently there are over 180 conservation-related videos in the library available to districts and teachers. No rental fees are assessed to those wishing to borrow the videos from the library. Borrowing privileges are for a length of two weeks and must be returned upon date specified by the librarian. Videos can be ordered through your local soil and water conservation district or by contacting the TSSWCB. Since the start of this year, through June 1, there have been 75 videos of various titles loaned out to districts and teachers across the state.

CONSERVATION EDUCATION MODELS

The Nonpoint Source Pollution Watershed Flow Model and the Groundwater Flow Model allow students to understand how water supplies can become polluted from nonpoint sources through interactive demonstrations.

NONPOINT SOURCE (NPS) POLLUTION WATERSHED FLOW MODEL

The NPS model is a hands-on representation of a landscape that allows students to understand how water sources can become polluted from nonpoint sources. The plastic landscape structure has industrial, undeveloped, agricultural, and residential and roadway features complete with individual houses, trees, cars, tractors and cows. When "rain" falls on the model, the runoff flows into a city lake. Using various products to add color to the water, the model demonstrates how potential pollutants are picked up by run-off.

The model is a layout of a watershed that includes all the factors that may contribute to polluting our water. (Urban features such as: factories, parking lots, construction sites, lawn chemicals and golf courses and Rural features such as: forested land, dairies, feedlots, cropland and pastureland). To demonstrate how each type of potential pollutant can enter a water body Kool-Aid and cocoa are used to color “runoff”. Grape Kool-Aid is used to represent pollution from factories and oil from parking lots and roads. Orange Kool-aid represents pollution from lawn chemicals, golf courses, and cropland and pastureland chemicals. Cocoa is used to represent pollution from construction sites, forested land, dairies and feedlots. The Kool-aid and Cocoa are sprinkled on the model in the areas that represent each type of pollutant. Once all the pollutants are sprinkled on the model a spray bottle with water is use to represent rainfall. As the pollutants get wet and start to runoff the students can see how the water carries them to the streams and into the lake where we get our drinking water. Once all the pollutants have run into the lake the students can see how these factors have the potential to make surface waters unattractive and unsafe. This demonstration leads to a discussion about how to protect the water quality and prevent our water from looking like the model.

GROUNDWATER FLOW MODEL

This model shows a cross-section of soil layers with a lake, a lagoon, and several wells represented. It uses a vacuum pump to make the water move through the soil layers and injection dyes to help visualize the flow of groundwater though soil and demonstrates how pollutants can travel in groundwater. The model demonstrates both percolation and the movement of groundwater due to pumping. Accompanied

by an instructional video with tips on the setup, presentation and cleanup, the model is useful and easy to use.

BRUSH CONTROL PROGRAM STATUS REPORT

GENERAL STATUS REPORTS

BACKGROUND:
The 78th Legislature continued funding for the State Brush Control Program by providing $3,114,794 in General Revenue Funds in FY04 and $607,805 in General Revenue Funds in FY05. These funds were directed to be used for continuation of brush control projects designated by the Soil and Water Conservation Board. In addition the legislature granted the unexpended balance of FY03 Bond monies.

NORTH CONCHO

Cost share funding in the amount of $13,253,950 has been made available in the North Concho River watershed. Money as of November 9, 2004:

- 28,289.30 acres were under contract to be treated at a cost of $953,528.66
- $101,921.06 remained to be obligated
- 299,361.37 acres had been treated at a cost to the State of $12,103,496.34

PEDERNALES

Cost share funding in the amount of $4,025,323.19 has been made available in the Pedernales River Watershed. Money as of November 9, 2004:

- 57,265 acres were under contract to be treated at a cost of $3,869,787.85
- $130,535.39 remained to be obligated
- 55,956 acres had been treated at a cost to the State of $3,731,624.86

TWIN BUTTES

Cost share funding in the amount of $8,901,049.28 has been made available in the Twin Buttes Watershed.
Money as of November 9, 2004:

- 188,679.31 acres were under contract to be treated at a cost of $8,811,924.55
- $70,610.41 remained to be obligated
- 164,210.76 acres had been treated at a cost to the State of $7,777,095.15

LAKE BALLINGER

Cost share funding in the amount of $419,900.75 has been made available in the Lake Ballinger Watershed.
Money as of November 9, 2004:

- 8,254.2 acres were under contract to be treated at a cost of $398,336.55
- $8,564.20 remained to be obligated
- 6,840.5 acres had been treated at a cost to the State of $323,553.75

OAK CREEK LAKE

Cost share funding in the amount of $1,095,765 has been made available in the Oak Creek Lake Watershed.
Money as of November 9, 2004:

- 16,535 acres were under contract to be treated at a cost of $800,146.7
- $1,500.27 remained to be obligated
- 15,422 acres had been treated at a cost to the State of $733,678.36

PECAN CREEK

Cost share funding in the amount of $323,887 has been made available in the Pecan Creek Watershed.
Money as of November 9, 2004:

- 11,982.42 acres were under contract to be treated at a cost of $319,726.57
- $3,862.50 remained to be obligated
- 11,982.37 acres had been treated at a cost to the State of $303,226.68

MOUNTAIN CREEK LAKE

Cost share funding in the amount of $95,542 has been made available in the Mountain Creek Watershed.
Money as of November 9, 2004:

- 1,440 acres were under contract to be treated at a cost of $70,846.57
- $17,881.20 remained to be obligated
- 1,440 acres had been treated at a cost to the State of $70,846.57

CHAMPION CREEK LAKE

Cost share funding in the amount of $906,932 has been made available in the Champion Creek Watershed.
Money as of November 9, 2004:

- 18,059 acres were under contract to be treated at a cost of $899,316
- $7616 remained to be obligated
- 13,881 acres had been treated at a cost to the State of $648,719.00

SPRING CREEK / DOVE CREEK PROJECT

Cost share funding in the amount of $1,146,275 has been made available in the Spring/Dove Watershed.
Money as of November 9, 2004:

- 30,571 acres were under contract to be treated at a cost of $1,092,444.04
- $0.00 remained to be obligated
- 29,931 acres had been treated at a cost to the State of $1,043,859.04

PECOS SALT CEDAR

Cost share funding in the amount of $525,976.75 has been made available in the Pecos Watershed. Money as of November 9, 2004:

· 8,507.7 acres were under contract to be treated at a cost of $444,374.25· $48,576.25 remained to be obligated

· 5,323.70 ACRES HAD BEEN TREATED AT A COST TO THE STATE OF $276,763.25

UPPER COLORADO SALT CEDAR

Cost share funding in the amount of $52,447.50 has been made available in the Upper Colorado Watershed. Money as of November 9, 2004:

836 acres were under contract to be treated at a cost of $43,916.25
$0.00 remained to be obligated
0 acres had been treated at a cost to the State of $0.00

Update on following Activities

28 Landowners assisted with Brush Contracts

45 Landowners assisted with Brush Certification

Assisted Coke County SWCD with Brush Program Updates

Assisted North Concho SWCD with Brush Program Updates

Assisted Tom Green County with Brush Program Updates

Assisted Mitchell County SWCD with Brush Program Updates

Assisted Runnels SWCD with Brush Program Updates

Assisted Middle Clear Fork with Brush Program Updates

Assisted Nolan County SWCD with Brush Program Updates

Assisted Eldorado-Divide SWCD with Brush Program Updates

Assisted Pedernales SWCD with Brush Program Updates

Assisted Gillispie SWCD with Brush Program Updates

Assisted Devils River SWCD with Salt Cedar contracts and certifications

Assisted High Point SWCD with Salt Cedar with certifications

Assisted Trans Pecos SWCD with Salt Cedar forms

Mailed Letters to Districts concerning new changes

Contract landowners throughout the Projects to release used funds

Training Pedernales employee on ArcView

Attended Local SWCD Banquet

Completed Audit report

Assisted with regional Wildlife contest held at MIR Center

Attended Natural Resources Field Day

Senate Conference

Review numerous contracts and certification

Review Projects with Larry Clark, Charles Midkiff, James Powell, Temple Dickson

Assisted Caston Company Brush Contractor

Assisted TDA role in Brush Program

Met with Dr. Alan Jones, D. Bill Dugus of the Texas A&M system

Discussed Salt Cedar Projects with Dr. Charlie Hart with Texas Cooperative Extension

TV interview with KSAN

General Information to George Menfee, Charlie McComick, Don Petty, Michael Tankersley

Discuss Projects with Stephen Brown of UCRA

Assisted Contractor Marcus Herrea

Discuss projects with Barney Austin (TWDB), Darrell Eckert, Dr. Harris (TWRI), Dr. Fox (TWRI), John Newman (NRCS), and Mike McMurray (TDA).

TEXAS STATE SOIL AND WATER CONSERVATION BOARD
FY05 OPERATING VERSUS EXPENDITURES
FOR THE TIME PERIOD THRU QUARTER 2 FY2005

A. GOAL: To Protect and Enhance the Farm and Grazing Land of Texas by Ensuring that a Quality Conservation Program is Available and Being Applied in All Soil and Water Conservation Districts and that Funds are Being Used Effectively to Increase Water Yield in Targeted Areas

STRATEGY 1.

Provide Program Expertise, Technical Guidance and Assistance, and Financial Assistance on a Statewide Basis in Managing and Directing Conservation Programs

Object of Expense	Budget	Expended	Percent Exp.	Balance
1. Salaries and Wages	$583,855.00	$281,252.96	48.17%	$302,602.04
2. Administrative and Operating Expenses	$303,675.00	$77,873.49	25.64%	$225,801.51
3. Grants				
Director Mileage and Per Diem	$325,000.00	$243,712.06	74.99%	$81,287.94
Conservation Assistance Grant (Matching Funds)	$916,364.00	$396,616.57	43.28%	$519,747.43
Technical Assistance Grant	$1,036,241.00	$559,372.16	53.98%	$476,868.84
Subchapter H Water Conservation Grant	$115,000.00	$-	0.00%	$115,000.00
Subtotal Grants	$2,392,605.00	$1,199,700.79	50.14%	$1,192,904.21
4. Strategy Total	$3,280,135.00	$1,558,827.24	47.52%	$1,721,307.76
5. Full Time Equivalent Positions:	12			

STRATEGY 2.

Provide Financial and Technical Assistance to Implement Brush Control Projects to Increase Water Yields in Targeted Watersheds

Object of Expense	Budget	Expended	Percent Exp.	Balance
1. Salaries and Wages	$154,626.16	$60,585.34	39.18%	$94,040.82
2. Administrative and Operating Expenses	$51,495.55	$24,617.60	47.81%	$26,877.95
3. Grants				
Grants to Districts	$80,000.00	$23,018.21	28.77%	$56,981.79
Brush Control Monitoring & Feasibility	$60,000.00	$0.00	0.00%	$60,000.00
Brush Control Cost-Share	$1,154,593.80	$39,803.40	3.45%	$1,114,790.40
Subtotal Grants	$1,294,593.80	$62,821.61	4.85%	$1,231,772.19
4. Strategy Total	$1,500,715.51	$148,024.55	9.86%	$1,352,690.96
5. Full Time Equivalent Positions:	4			

TEXAS STATE SOIL AND WATER CONSERVATION BOARD
FY05 OPERATING VERSUS EXPENDITURES
FOR THE TIME PERIOD THRU QUARTER 2 FY2005

B. GOAL: To Effectively Administer a Program for the Abatement of Nonpoint Source Pollution Caused by Agricultural and Silvicultural Uses of the State's Soil and Water Resources

STRATEGY 1.

Implement and Update as Necessary a Statewide Management Plan for the Control of Agricultural and Silvicultural Nonpoint Source Water Pollution

Object of Expense	Budget	Expended	Percent Exp.	Balance
1. Salaries and Wages	$260,788.00	$125,473.35	48.11%	$135,314.65
2. Administrative and Operating Expenses	$172,533.00	$34,097.30	19.76%	$138,435.70
3. Grants	$3,939,183.00	$1,253,136.48	31.81%	$2,686,046.52
4. Strategy Total	$4,372,504.00	$1,412,707.13	32.31%	$2,959,796.87
5. Full Time Equivalent Positions:	8			

STRATEGY 2.

Develop and Implement Pollution Abatement Plans for Agricultural and Silvicultural Operations in Identified Problem Areas

Object of Expense	Budget	Expended	Percent Exp.	Balance
1. Salaries and Wages	$1,113,193.00	$540,465.34	48.55%	$572,727.66
2. Administrative and Operating Expenses	$390,885.45	$155,735.59	39.84%	$235,149.86
3. Grants				
Pollution Abatement Plans (S.B. 503)	$2,171,740.00	$127,369.28	5.86%	$2,044,370.72
Waste Management Plans (S.B. 1339)	$123,220.00	$3,076.22	2.50%	$120,143.78
Subtotal Grants	$2,294,960.00	$130,445.50	5.68%	$2,164,514.50
4. Strategy Total	$3,799,038.45	$826,646.43	21.76%	$2,972,392.02
5. Full Time Equivalent Positions:	28			

TEXAS STATE SOIL AND WATER CONSERVATION BOARD
FY05 OPERATING VERSUS EXPENDITURES
FOR THE TIME PERIOD THRU QUARTER 2 FY2005

C. GOAL: Indirect Administration
STRATEGY 1.
Indirect Agency Administration

Object of Expense	Budget	Expended	Percent Exp.	Balance
1. Salaries and Wages	$282,865.00	$148,050.38	52.34%	$134,814.62
2. Administrative and Operating Expenses	$130,400.00	$38,213.85	29.31%	$92,186.15
3. Strategy Total	$413,265.00	$186,264.23	45.07%	$227,000.77
4. Full Time Equivalent Positions:	7			
TOTAL OPERATING BUDGET	**$13,365,657.96**	**$4,132,469.58**	**30.92%**	**$9,233,188.38**
TOTAL FULL TIME EQUIVALENT POSITIONS:	**59**			

Texas State Soil and Water Conservation Board (TSSWCB) Projects

	Title	Lead	Goals	Period	Federal Funds	Balance	PM
00-1	**Administration of the FY2000 CWA Section 319(h) Agricultural/Silvicultural NPS Management Program**	TSSWCB	Administer/manage the FY00 CWA 319(h) cooperative agreement between EPA and TSSWCB. Coordinate with project cooperators on administrative related issues and manage the financial aspects of each contract.	Grant	$115,477	$19,695	KW
00-2	**Statewide NPS Pollution Management Project**	TSSWCB	Provide technical assistance for FY00 CWA 319(h) agricultural and silvicultural projects and ensure that projects meet all technical requirements and are successfully completed in a timely fashion.	Grant	$197,972	$4,047	KW
00-5	**North Central Texas Atrazine Remediation**	Navarro SWCD 514	Provide corn and sorghum producers in the Joe Pool Lake, Lake Waxahachie, and Bardwell Reservoir watersheds with financial/technical assistance for WQMP implementation aimed at reducing atrazine runoff, and provide water quality educational activities.	6/21/00 7/29/05	$404,200	$79,522	LM
00-7 00-9	**North Central Texas Atrazine Remediation**	Ellis - Prairie SWCD 504	Provide corn and sorghum producers in the Joe Pool Lake, Lake Waxahachie, and Bardwell Reservoir watersheds with financial/technical assistance for WQMP implementation aimed at reducing atrazine runoff, and provide water quality educational activities.	11/14/00 8/31/05	$456,700	$159,640	LM
00-8	**Composting Support in Bosque River Watershed**	TIAER, TSU SWCD 556	Submitted by TSSWCB - Project will coordinate compost activities in the Bosque and Leon watershed among all entities involved. Provide financial/technical assistance to offset costs of transporting raw manure to compost facilities.	1/17/01 8/31/05	$2,344,521	$119,858	TJ
01-1	**Administration of the FY2001 CWA Section 319(h) Agricultural/Silvicultural NPS Management Program**	TSSWCB	Administer/manage the FY01 CWA 319(h) cooperative agreement between EPA and TSSWCB. Coordinate with project cooperators on administrative related issues and manage the financial aspects of each contract.	Grant	$228,574	$113,513	KW

Texas State Soil and Water Conservation Board (TSSWCB) Projects

	Title	Lead	Goals	Period	Federal Funds	Balance	PM
01-2	**Statewide NPS Pollution Management Project**	TSSWCB	Provide technical assistance for FY01 CWA 319(h) agricultural and silvicultural projects and ensure that projects meet all technical requirements and are successfully completed in a timely fashion.	Grant	$208,890	$67,790	KW
01-4	**North Texas Atrazine Remediation**	Collin County SWCD 535	Provide corn and sorghum producers in the Lake Lavon, Lake Tawakoni, and Big Creek Lake watersheds with financial/technical assistance for WQMP implementation aimed at reducing Atrazine runoff, and provide water quality educational activities.	4/11/01 3/31/06	$404,200	$263,407	LM
01-10	**WQMP Development & Implementation Assistance**	Gonzales SWCD 338	Project provides two full time SWCD technicians for the development, implementation, and/or maintenance of WQMPs. Poultry producers are top priority.	5/16/01 08/31/05	$412,700	$59,952	LM
01-12	**Aquilla Reservoir TMDL Implementation Plan Monitoring**	TAMU PFRL SWCD 540	Technician hired by Hill County-Blackland SWCD in a concurrent project, will work with TAMU Pesticide Fate Research Laboratory, TCE and implementation.	1/1/02 12/31/04	$207,861	$23,998	LM
01-13	**Technical and Financial Assistance in the Bosque River Watershed**	Cross Timbers SWCD 556	Provide technical/financial assistance to landowners toward development and implementation of WQMP for the purpose of reducing NPS nutrient losses from agriculture operations that land-apply animal waste. Monitoring of micro-watersheds will be performed in order to determine NPS reductions.	12/23/01 8/31/05	$1,800,607	$1,107,790	TJ
01-14	**Technical and Financial Assistance in the Bosque River Watershed**	Upper Leon SWCD 525	Provide technical/financial assistance to landowners toward development and implementation of WQMP for the purpose of reducing NPS nutrient losses from agriculture operations that land-apply animal waste. Monitoring of micro-watersheds will be performed in order to determine NPS reductions.	12/1/01 8/31/05	$789,584	$545,667	TJ

Texas State Soil and Water Conservation Board (TSSWCB) Projects

	Title	Lead	Goals	Period	Federal Funds	Balance	PM
02-1	**Administration of the FY2002 CWA Section 319(h) Agricultural/Silvicultural NPS Management Program**	TSSWCB	Administer/manage the FY02 CWA 319(h) cooperative agreement between EPA and TSSWCB. Coordinate with project cooperators on administrative related issues and manage the financial aspects of each contract.	Grant	$304,132	$218,554	KW
02-2	**Statewide NPS Pollution Management Project**	TSSWCB	Provide technical assistance for FY02 CWA 319(h) agricultural and silvicultural projects and ensure that projects meet all technical requirements and are successfully completed in a timely fashion.	Grant	$311,290	$152,898	KW
02-4	**Texas Silviculture**	Texas Forest Service	Project will reduce significant risks to water quality from silvicultural NPS pollution by implementing BMPs and increasing silvicultural NPS awareness. Statewide evaluation of silvicultural BMP adoption. Provide technical assistance. Continue a silvicultural WQMP & increase coordination among entities.	5/1/02 9/30/05	$503,293	$174,998	LM
02-5	**Little River Atrazine Remediation**	Central Texas SWCD 509	Project will provide corn & sorghum producers in the Little River watershed with an opportunity to participate in water quality educational activities, technical assistance, and financial assistance for implementation of BMPs, to reduce atrazine runoff.	4/9/02 3/31/06	$433,482	$196,267	LM
02-6	**Little River Atrazine Remediation**	Little River - San Gabriel SWCD 508	Project will provide corn & sorghum producers in the Little River watershed with an opportunity to participate in water quality educational activities, technical assistance, and financial assistance for implementation of BMPs, to reduce atrazine runoff.	4/29/02 3/31/06	$328,482	$73,394	LM
02-8	**Composting Support in Bosque**	TIAER, TSU SWCD 556	Project will coordinate compost activities in Bosque and Leon watershed among all entities involved. Provide financial/technical assistance to offset costs of transporting raw manure to compost facilities.	3/1/02 8/31/05	$252,312	$52,402	TJ

Texas State Soil and Water Conservation Board (TSSWCB) Projects

	Title	Lead	Goals	Period	Federal Funds	Balance	PM
02-10	**DNA Sample Collection/Library**	TFB, TAES, TAMU AREC	Develop publicly available, comprehensively characterized genetic fingerprint and antibiotic resistance libraries of approx. 1,000 unique E.coli isolates from known animal, human & wastewater sources from Bosque and Leon River watersheds.	11/1/02 9/30/05	$780,836	$294,827	TJ
02-11	**Phosphorus Index**	TCE	Determine the effects of selected soil properties on measured and predicted P runoff. Compare and correlate different soil test & soil solution extractable P levels to runoff P. Validate and/or modify the TX P Index as a predictive tool for classification of field sites relative to P loss potential.	9/27/02 3/31/06	$203,178	$21,934	TJ
02-12	**Three - Technicians**	Southmost, Shelby, & Ellis-Prairie SWCDs 319, 349, 350, 401, 449, 504, & 514	Three technicians will work under the direction of SWCDs, with assistance when needed from the TSSWCB regional offices, and NRCS to assist landowners in the development, implementation, &/or maintenance of WQMPs/BMPs. Technicians will be placed in three SWCDs and will work in adjacent SWCDs through cooperative agreements between the participating SWCDs.	9/11/02 12/31/05	$519,589	$291,332	LM
02-13	**Oso Creek/Oso Bay Watershed Implementation Assistance**	Nueces SWCD 357	Technical assistance will be provided by Nueces SWCD and TSSWCB Harlingen Regional Office to landowners within Oso Creek/Oso Bay Watershed to develop and implement WQMPs within the watershed.	9/5/02 12/31/06	$544,302	$254,554	LM
02-14	**North Texas Atrazine Demonstration**	TCE	Demonstration and educational activities will be conducted to foster the implementation of BMPs within the Big Creek Lake Watershed to reduce atrazine in runoff.	9/11/02 3/31/06	$206,636	$55,095	LM
02-15	**Water Quality Information/Education**	TSSWCB Statewide	Development of newspaper articles, informational brochures/flyers, display exhibits and promotional materials that include both water quality and water conservation messages to increase public awareness.	3/31/02 3/31/07	$135,000	$105,109	CH

Texas State Soil and Water Conservation Board (TSSWCB) Projects

	Title	Lead	Goals	Period	Federal Funds	Balance	PM
02-16	**Implementation Support Project in the Arroyo Colorado Watershed**	Southmost SWCD 319	Project will provide additional funding for ongoing implementation efforts in Arroyo Colorado watershed. TSSWCB projects entitled "WQMP Implementation Assistance in Arroyo Colorado Watershed"(99-3) & "SWCD WQMP Development, Implementation &/or Maintenance Assistance" (02-12) will provide technical assistance for the project with coordination from the Harlingen Regional Office.	9/11/02 12/31/05	$547,307	$149,797	CH
02-17	**Development of New Litter Markets in TX**	Pineywoods RC&D	Project will develop a strategy for approaching alternative "off-farm" markets that have the potential, taken together, to utilize all current and future production of poultry litter produced in Texas.	9/11/02 9/30/05	$97,497	$30,023	CH
02-18	**Athletic Field Topdressing as a Commercial Market for Compost from Dairy Manure (Field of Dreams Project)**	Leon-Bosque RC&D Council	Overall project goal: Gain commercial acceptance of blend of compost and sand for topdressing of athletic fields through demonstration on athletic fields.	7/1/04 6/30/06	$52,500	$15,571	TJ
02-20	**Saltwater Revegetation**	Young SWCD	Demonstration project designed to show conservation practices and different seeding and mulching methods to establish best grass cover.	5/4/05 3/30/07	$15,060	$15,060	CH
03-1	**Administration of the FY2003 CWA Section 319(h) Agricultural/Silvicultural NPS Management Program**	TSSWCB	Administer/manage the FY03 CWA 319(h) cooperative agreement between EPA and TSSWCB. Coordinate with project cooperators on administrative related issues and manage the financial aspects of each contract.	Grant	$154,231	$118,264	KW
03-2	**Statewide NPS Pollution Management Project**	TSSWCB	Provide technical assistance for FY03 CWA 319(h) agricultural and silvicultural projects and ensure that projects meet all technical requirements and are successfully completed in a timely fashion.	Grant	$245,109	$169,527	KW
03-3	**The Aquatic Experience**	UCRA SWCD 219, 248, 251	"*The Aquatic Experience*" will be an education about NPS inputs and provide opportunities for area public schools to interact with the aquatic environment.	11/1/03 3/30/06	$19,200	$6,796	CH

Texas State Soil and Water Conservation Board (TSSWCB) Projects

	Title	Lead	Goals	Period	Federal Funds	Balance	PM
03-4	**Texas Silviculture BMP Effectiveness Study**	TFS	Project will serve to quantify improvements in the quality of surface water in East Texas. Established TSSWCB WQMP Program will continue as part of this project to increase coordination among all entities involved.	7/1/03 4/31/06	$367,620	$176,258	LM
03-5	**Sam Rayburn WQMP Implementation Supplemental**	Shelby SWCD 449	Provide financial assistance to landowners for development/implementation of WQMPs. Foster coordinated technical assistance activities in Sam Rayburn Reservoir and Toledo Bend Reservoir watersheds between TSSWCB, SWCD, NRCS, and other interested individuals. Compile info. on the location/types of BMPs for WQMPs implemented.	6/16/03 3/31/06	$350,000	$219,045	LM
03-6	**E.V. Spence Saltcedar**	TSSWCB SWCD 115, 207, 219, & 243	Provide technical and financial assistance toward implementation of targeted brush control activities for the purpose of reducing NPS loadings from saltcedar in the E.V. Spence Reservoir.	11/1/03 3/31/06	$2,208,446	$2,140,533	CH
03-7	**Bacteria Monitoring for Buck Creek**	TWRI SWCD 109	Monitor water quality as related to bacterial NPS pollution in Buck Creek by in-stream water sampling to facilitate TMDL definitions and guidance if needed.	11/1/03 3/31/06	$247,198	$157,582	TJ
03-8	**Nitrate Impacts in Groundwater**	TCE	Project will design and implement a cover crop demonstration using three different winter cover crops and one bare soil.	11/1/03 3/31/06	$98,341	$87,543	TJ
03-9	**Central Texas WQMP Implementation Supplemental**	Little River - San Gabriel, Central Texas SWCD 508 & 513	Project will provide additional funding for the ongoing implementation efforts in the Little River watershed. TSSWCB projects (02-5 & 02-6) entitled "Central Texas Atrazine Remediation Project".	11/1/03 3/31/06	$424,080	$424,080	LM
03-10	**Technologies for Animal Waste Pollution**	TWRI	Proposal provides for testing of new technologies designed for reducing water pollution associated with animal production systems, principally dairies. Focus is restricted to reducing P in dairy waste streams.	11/1/03 3/31/06	$227,793	$205,316	TJ

Texas State Soil and Water Conservation Board (TSSWCB) Projects

	Title	Lead	Goals	Period	Federal Funds	Balance	PM
03-11	**Leaf Beetle Demonstration**	ARS	Project will demonstrate the usefulness of biologically treating saltcedar in the Colorado River Basin in an effort to reduce NPS pollution loadings resulting from saltcedar on agricultural lands.	11/1/03 3/31/06	$99,246	$71,681	CH
03-12	**Navarro WQMP Implementation Supplemental**	Navarro SWCD 514	Project will provide additional funding for the ongoing implementation efforts in the Richland-Chambers Reservoir watershed. TSSWCB F321 projects (00-5) entitled "North Central Texas Atrazine Remediation Project".	11/1/03 3/31/06	$430,279	$382,846	LM
03-14	**Edge of Field Monitoring**	BRA	Project will monitor and evaluate the P reduction capabilities of a state of the art methane digester installed on a dairy facility in the North Bosque River watershed operating in conjunction with a CNMP.	11/1/03 3/31/06	$96,081	$82,202	TJ
03-15	**Reducing Atrazine Losses in Central TX**	TCE	Demonstrate effects of alternative tillage practices & atrazine application practices on protecting water quality by reducing atrazine losses; validate simulation model with measured atrazine losses.	11/1/03 3/31/06	$101,271	$56,834	CH
03-16	**Atrazine Modeling**	NRCS-WRAT	Purpose of project is to determine, using a watershed model (SWAT), effects of applying BMPs on atrazine loadings to streams, rivers, and lakes in 7 watersheds.	11/1/03 11/30/06	$158,400	$158,400	CH
03-18	**Bosque Watershed Coordinator**	BRA	Objectives include identifying and tracking progress of all pollution prevention projects and measures that are currently underway, tracking rules & regulations that affect operations of entities in the watershed, reviewing water quality data for trend I.D., providing opportunities for efficient/effective use of resources.	11/1/03 3/31/06	$190,815	$146,193	TJ
04-1	**Administration of the FY2004 CWA Section 319(h) Agricultural/Silvicultural NPS Management Program**	TSSWCB	Administer/manage the FY04 CWA 319(h) cooperative agreement between EPA and TSSWCB. Coordinate with project cooperators on administrative related issues and manage the financial aspects of each contract.	Grant	$154,220	$128,577	KW

Texas State Soil and Water Conservation Board (TSSWCB) Projects

	Title	Lead	Goals	Period	Federal Funds	Balance	PM
04-2	**Statewide NPS Pollution Management Project**	TSSWCB	Provide technical assistance for FY04 CWA 319(h) agricultural and silvicultural projects and ensure that projects meet all technical requirements and are successfully completed in a timely fashion.	Grant	$520,480	$678,129	KW
04-3	**Athletic Field Topdressing as a Commercial Market for Compost from Dairy Manure (Field of Dreams Project)**	Leon-Bosque RC&D Council	Overall project goal: Gain commercial acceptance of blend of compost and sand for topdressing of athletic fields through demonstration on athletic fields.	7/1/04 3/31/07	$300,000	$223,332	TJ
04-4	**Field Validation of the Texas P Index in the Poultry Areas of Texas**	TCE	Effects of selected soil properties in Sam Rayburn Reservoir and Lake O' the Pines watersheds and other poultry producing areas of the state in East & South Central Texas to measure & predict P runoff and compare and correlate Mehlich III and soil solution soluble P extracts to runoff P.	8/1/04 8/31/07	$390,657	$390,657	TJ
04-5	**Creekside Conservation Program Project**	LCRA	Protect Central Texas Highland Lakes by providing technical/financial assistance to landowners through the LCRA's Creekside Conservation Program. Assess NPS reductions resulting from Creekside Conservation Program.	2/1/04 8/31/07	$507,300	$507,300	CH
04-6	**Modeling Nutrient Loads from Poultry Operations in the Toledo Bend & Sam Rayburn Reservoir Watersheds**	NRCS-WRAT	Collect GIS, landuse, management, and measured data for selected watersheds. Where measured data is available, calibrate SWAT watershed model to measured flow, sediment and nutrients. Simulate nutrient load for current, pre and post conditions.	4/11/05 3/31/08	$96,000	$96,000	CH
04-7	**Technical Assistance and Implementation in West Fork of the Trinity River Watershed**	Jack SWCD 549	Provide technical assistance to landowners in developing and implementing WQMPs within the West Fork of Trinity River Watershed.	8/12/04 8/31/07	$100,000	$80,311	LM
04-8	**WQMP Implementation Assistance in Falcon Reservoir Drainage Area in Zapata Co.**	Zapata SWCD 335 TSSWCB Harligen R.O.	Coordinate technical assistance activities in the Falcon Reservoir Drainage Area in Zapata County between TSSWCB, SWCD, NRCS, & Kika De La Garza PMC. Inventory & map land uses & current mgmt. practices within the targeted watershed. Provide technical/financial assistance to landowners to aid in development/implementation of WQMPs.	8/17/04 8/31/07	$461,290	$445,171	LM

Texas State Soil and Water Conservation Board (TSSWCB) Projects

	Title	Lead	Goals	Period	Federal Funds	Balance	PM
04-9	**Seymour Aquifer Water Quality Improvement**	TWRI (Haskell, Wichita Brazos & California Creek SWCDs)	The main goal of this project is reduce the nitrate levels in the Seymour Aquifer. Project will provide irrigators in Haskell, Knox, and Jones counties with opportunity to participate in water quality educational activities, technical assistance, financial assistance for implementation of BMPs, in order to improve water quality in Seymour Aquifer.	8/19/04 8/31/07	$764,054	$717,466	CH
04-10	**Phytoremediation of excessively high phosphorus soils and subsequent reduced P runoff into North Bosque River**	TAES	General objective of this project is to reduce surface surface water contamination in the north Bosque River from soil-applied P of dairy manure origin.	8/30/04 8/31/07	$238,859	$237,565	TJ
04-11	**Watershed Protection Plan Development for the Pecos River**	TWRI	Assess the Pecos River Basin and increase landowner and stakeholder involvement through educational efforts. Watershed Protection Plan based on the river basin assessment.	8/25/04 8/31/07	$709,380	$709,380	CH
04-12	**Little Wichita River Watershed Protection Plan**	TIAER at TSU	Project will provide assessment of existing and potential water quality problems associated with NPS pollution in the Little Wichita River Basin & provide watershed plan to improve and protect water quality within the basin.	8/1/04 2/28/07	$90,090	$78,300	TJ
04-13	**Development of a Watershed Protection Plan for the Concho River Basin**	Upper Colorado River Authority (UCRA)	Project will provide assessment of existing and potential water quality threats related to on-going NPS water pollution within the Concho River basin and will also provide a Watershed Protection Plan.	9/1/04 8/31/07	$375,240	$326,688	CH
04-14	**Assessment and Mitigation of Agricultural and Other NPS Activities in the Cypress Creek Basin.**	NETMWD	Northeast Texas Municipal Water District Assessment Project and On-Site Sewage System Replacement Program. Primary goal of project is evaluate effectiveness of selected BMPs in reducing nutrient inputs to Big Cypress Creek and Lake O' Pines by documenting runoff quality from sites representing dominant soil & land use types, with/out BMPs. Implemented/replace failing septic systems.	8/1/04 3/31/07	$442,805	$403,574	TJ

Texas State Soil and Water Conservation Board (TSSWCB) Projects

	Title	Lead	Goals	Period	Federal Funds	Balance	PM
04-15	**Mathematical Model for Dispersal of Leaf Beetle, Diorhabda Elongata from Old World released in U.S. for Biological Control of Invasive Saltcedar**	ARS-USDA	Goal of project is aid in Implementation Plan for Sulfate and Total Dissolved Solids (TMDLs) in the J.B. Thomas, E.V. Spence and O.H. Ivey Reservoirs by biological control of saltcedar in riparian areas along the Colorado River of Texas and its tributaries.	10/27/04 8/31/07	$136,724	$136,724	CH
04-16	**Nueces Basin Headwaters Stewardship Project**	Nueces River Authority	Using public education, project will concentrate on water quality concerns, impairments, and threats to water quality and streambed conditions in five headwater stream segments of the Nueces River Basin.	9/1/04 8/31/07	$170,703	$139,966	CH
04-17	**TSTAR**	TCE	The purpose of this project is to develop and test in a pilot watershed the educational component of the T-STAR Program which provides agricultural producers and allied industry with a combination of production and environmental training.	2/24/05 8/31/07	$440,503	$440,503	TJ
04-18	**BMP Verification in Richland-Chambers**	TAES	Verify effectiveness of nutrient load reduction BMPs in the Richland-Chambers watershed.		$237,722	$237,722	CH

TEXAS STATE SOIL & WATER CONSERVATION BOARD

SEMI - ANNUAL REPORT

TO THE

GOVERNOR,
LIEUTENANT GOVERNOR,
AND
SPEAKER OF THE HOUSE

JANUARY 1, 2006

FORWARD

In response to S.B. 1828 passed by the 78th Texas Legislature in Regular Session, 2003, the Texas State Soil and Water Conservation Board presents this review of its programs and activities. S.B. 1828 added §201.028 to the Texas Agriculture Code to provide that the TSSWCB shall prepare and deliver to the Governor, the Lieutenant Governor, and the Speaker of the House of Representatives a report, not later than January 1 and July 1 of each year, relating to the status of the budget areas of responsibility assigned to the State Board including outreach programs, grants made and received, federal funding applied for and received, special projects, and oversight of soil and water conservation district activities.

The FY06 Expected Expenditure Summary is attached to this report. Information on grants made to local districts and other entities is incorporated within the program section it involves. Federal grants received for the Clean Water Act are provided in that section.

Attached, as an addendum of this report, is the Brush Control Program 2005 Annual Report. Section 203.056, Texas Agriculture Code, requires the State Board, before January 31 of each year, to submit a report of the activities of the Brush Control Program during the immediately preceding year.

The Texas State Soil & Water Conservation Board takes pride in the accomplishments and remarkable progress that have been made in soil and water conservation in this state. Often environmental successes are slow to be realized. We have realized and already reported one success story that involves reducing the level of Atrazine in several water bodies, particularly the Aquilla Reservoir in the Hill County-Blackland SWCD.

However, we recognize there remains a continuing challenge and an ongoing need to ensure our land has the capability to produce food and fiber for future Texans. Because of changes in land use, ownership, technology, and population growth, the need for soil and water conservation programs will remain critical. Texas has a finite number of acres to provide for the needs and desires of citizens and visitors, and this places an ever-increasing demand on agricultural land. Farmers and ranchers face complex decisions concerning the best ways to manage and utilize the land available to them.

We believe that soil and water conservation programs must remain dynamic as land uses change and technology improves to make some conservation practices more capable of meeting demands on soil and water resources. We also maintain the belief that the purpose of the soil and water conservation program is to promote the wise use of our renewable natural resources and provide for the conservation and enhancement of the soil and water resources of this state through and by the dynamic decisions of local soil and water conservation districts which promotes the use of each acre of land within its capabilities and treating it according to its needs.

From the beginning, the Texas State Soil and Water Conservation Board and local soil and water conservation districts have formed an organizational framework through which various complex governmental conservation programs are delivered to local landowners and operators. This relationship has successfully been utilized to disseminate sound management techniques and practices to maintain individual productive land uses to provide for the needs of present and future generations.

To the landowners of Texas, the individual soil and water conservation district directors, and the many agencies and organizations assisting and working with our programs, we offer our sincere thanks.

Table of Contents

	Page
Historical Background	5
Organization	7
Staff	7
Soil and Water Conservation Districts	9
Annual State Meeting Of Soil and Water Conservation District Directors	11
Director Mileage and Per Diem	11
District Technical Assistance Funds	11
Agricultural Water Conservation Grant	11
District Conservation Assistance Program	12
Programs and Activities Supporting the TSSWCB	12
Total Maximum Daily Load (TMDL) Program	12
Clean Water Act, §319(h) Grant Program	14
Watershed Protection Plan Program	15
Water Quality Management Plan (WQMP) Program	16
Poultry Water Quality Management Plan (WQMP) Initiative	18
North Bosque River Watershed Initiative	20
Dairy Manure Export Support (DMES) Program	21
Comprehensive Nutrient Management Plan (CNMP) Program	22
Texas Atrazine Initiative	23
Background	23
Development of the Texas Approach	23
Implementation of the Atrazine Initiative	24
Atrazine Initiative Results – A Success Story	26
Coastal Management Program	26
Background	26
Current Status	27
Information Technology	28
Public Information /Education Report	28
General Overview	28
2005 Summer Teacher Workshops	29
2005 Texas Conservation Awards Program	29
Outstanding Conservation District	30
Resident Conservation Rancher	30
Resident Conservation Farmer	30
Absentee Conservation Farmer/Rancher	30
Water Quality Management Plan	30
Essay Contest	30
Poster Contest	30
Business/Professional Individual	31

Conservation Teacher	31
Wildlife Conservationist	31
Conservation Homemaker	31
Conservation District Employee	31
Forestry Conservationist (Area IV only)	31
Soil & Water Stewardship Public Speaking Contest	31
Wildlife Alliance For Youth	32
State Woodland Clinic and Contest	33
Regional Woodland Clinic	33
Conservation Education Video Library	33
Conservation Education Models	34
Nonpoint Source (NPS) Pollution Watershed Flow Model	34
Groundwater Flow Model	34
TSSWCB FY06 Expected Expenditure Summary	Atch 1
Ongoing Clean Water Act, §319(h) Grant Program Projects	Atch 2
Brush Control Program 2005 Annual Report	Atch 3

HISTORICAL BACKGROUND

In the early history of the United States, those involved in agriculture often did not consider the conservation of soil and water resources. Land was cleared and put into farm production. When the land quit producing at a profitable level, the farmers merely moved on to new land farther west and started the process over again. There was no need to be concerned with soil conservation, as there was a seemingly unlimited supply of virgin land waiting to be tilled. This process continued through the 1800s and into the early 1900s. With the outbreak of World War I, farmers in the Great Plains states were encouraged to break out native grassland to grow wheat and other foodstuffs to feed the nation and the world. As a result of these and other unwise management practices and the fact that the farmlands were experiencing long periods of drought, the 1930s produced some of the worst dust storms the nation had ever seen. Clouds of dust rolled across the plains states sending dust storms through the south and into the nation's capital. At the same time, the nation was in the midst of a great economic depression. The federal government, seeking ways to put people back to work and encourage conservation, created the Civilian Conservation Corps and Soil Erosion Service. Through these mechanisms, demonstration projects were initiated to train technicians and to educate the public in ways to conserve soil resources. These programs were successful in putting people back to work, but lacked the local ties to establish lasting conservation programs.

One of the early day leaders in the national effort to control soil erosion was Hugh Hammond Bennett from North Carolina. After graduation from the University of North Carolina in 1903, Hugh Bennett took a job with the Bureau of Soils in the United States Department of Agriculture. Because of his experience, scientific knowledge and leadership ability, he was put in charge of the Soil Erosion Service when it was created in 1933. In 1935, P.L. (Public Law) 46 was passed creating the Soil Conservation Service within the U.S. Department of Agriculture and Hugh Bennett became the first Chief of the agency. He soon became internationally known for his accomplishments in conservation work.

With the help of Congressman Buchannan from Columbus, Texas, Hugh Bennett was able to persuade President Franklin Roosevelt that the soil resources of this nation were being wasted. He convinced the President that a Model Soil Conservation Act should be developed and sent to the governors of each state for passage by their state legislatures. The purpose of this Model Act would be to develop programs at the state and local level to control soil erosion.

In 1936, such a Model Act was sent to the governors with the endorsement of President Roosevelt. The Model Act, developed in Washington, was patterned after the Texas Wind Erosion Act, the Grass Conservation Acts in the Northern High Plains and certain water conservation district law.

In 1937 legislation was introduced in the Texas Legislature based on this Model Act. It is reported that as many as 25 different versions of this soil conservation law were considered before a final version was passed. There was much heated discussion of the proposed legislation. When the final version was adopted, the bill contained many undesirable features. The law would have set up Soil Conservation Districts automatically on a county basis and made County Commissioners Courts the governing body. A portion of the county tax was to be used to finance the program and county agricultural agents were to be the administrative officers.

A number of agricultural leaders from across the state had, by this time, become concerned about the newly passed legislation. It was their opinion that, if the responsibility for installing and maintaining conservation measures lay in the hands of the land owners, the control of such a program should also be

in their hands. As a result of these and other concerns, a group of landowners led by V.C. Marshall of Heidenheimer, Texas, convinced the Governor to veto the 1937 legislation.

Hard feelings among agricultural leaders resulted from the attempt to pass this soil conservation law. Under the leadership of Mr. Marshall, a concerted effort was made during the interim between legislative sessions to heal the old wounds and to put together a version of a law that would be generally accepted by the farmers and ranchers of Texas. Mr. Marshall organized a committee of leaders from across the state to promote the passage of a new Soil Conservation Law. He traveled many miles at his own expense seeking the views of agricultural leaders and promoting the idea of the Soil Conservation District Program.

The key points Mr. Marshall felt should be included in the new law were that (1) farmers and ranchers should determine whether or not a Soil Conservation District was needed and hold a local option election prior to the establishment of the district; (2) the program should be controlled by landowners; and (3) the Soil Conservation Districts should have no taxing authority or the power of eminent domain.

In 1939 the Texas Legislature passed H.B. (House Bill) 20 which incorporated those features and was the first Soil Conservation Law for the state. The law created the State Soil Conservation Board and allowed for the creation of the Soil Conservation Districts. Mr. Marshall was elected as the first Chairman of the Soil Conservation Board and later resigned to become the first Executive Director of the agency.

On April 30, 1940, the Secretary of the State issued Certificates of Organization for the first 16 Soil Conservation Districts paving the way for the program we now operate. Today, Texas has 217 local soil and water conservation districts that encompass more than 99% of the state.

As previously mentioned, the Model Act endorsed by President Roosevelt was in part patterned after the Texas Wind Erosion Act. Texas was already making attempts to address soil conservation as a result of the "Dust Bowl" days of the 1930s. The 44th Legislature in 1935 passed legislation authorizing the establishment of Wind Erosion Conservation Districts. This law provided for the creation of districts to "conserve the soil by prevention of unnecessary erosion caused by winds, and the reclamation of lands that have been depreciated or denuded of soil by reasons of winds." Although a number of Wind Erosion Control Districts were created, the passage of the Soil Conservation District Law in 1939 resulted in those districts becoming dormant.

In 1975, Governor Dolph Briscoe, by Executive Order, designated the TSSWCB as lead agency to assume the planning and management responsibility for control of agricultural and silvicultural nonpoint source pollution as required by the Federal Water Pollution Control Act.

In 1981 the 67th Legislature passed H.B. 1436, which for the first time codified the agricultural laws of Texas. Title 7, Chapter 201 of this code contains the portion pertaining to Soil and Water Conservation.

In 1985 the 69th Legislature passed S.B. 1083 creating a Brush Control Program in Texas and granting new powers and responsibilities, without funding, to the TSSWCB and Soil and Water Conservation Districts under Chapter 203 of the Agriculture Code. In 1999, the TSSWCB received its first appropriation in the FY00-01 biennium to control water-depleting brush and trees, such as cedar and mesquite. The program received $9.1 million to establish a pilot project in the North Concho Watershed.

In 1993, the 73rd Legislature passed S.B. 503 which named the TSSWCB the lead agency to address water quality issues relating to runoff from diffused, or nonpoint sources resulting from agricultural and forestry operations. In 1999, the Legislature expanded the TSSWCB's environmental mission and appropriated money to address water pollution from nonpoint sources under a separate, federally mandated program.

The leaders who framed the Texas Soil and Water Conservation Law in 1939 recognized that landowners and operators of private land constitute the basic resource for the conservation of our renewable natural resources. Without the support and willing participation of private landowners and operators in the development and implementation of soil and water conservation programs there is little hope of success. Local soil and water conservation districts led by farmers and ranchers who know the land and the local conditions and problems have the means to develop conservation plans that address each acre of land specific to its needs to solve or reduce the severity of its problems.

ORGANIZATION

Since inception, the TSSWCB has been governed by five board members, elected by delegates from each of five regions of the state's 217 local soil and water conservation districts. Elections occur annually at regional conventions of the local soil and water conservation districts, with members serving two-year staggered terms. However, with the enactment of S.B. 1828 by the 78th Legislature, two Governor appointees join the five elected board members to create a seven-member board. The two Governor appointed positions are listed below. The term of one member appointed by the Governor expires February 1 of each odd-numbered year, and the term of the other member appointed by the Governor expires on February 1 of each even-numbered year.

Elected State Board members must be 18 years of age or older; hold title to farmland or ranchland; and be actively engaged in farming or ranching. The Governor appointees must be actively engaged in the business of farming, animal husbandry, or other business related to agriculture and wholly or partly owns or leases land used in connection with that business; and may not be a member of the board of directors of a conservation district.

The State Board elects its own Chair and generally meets every odd month, unless specific programs or issues require more immediate action. The following list shows the current Board members and shows which State Board Region they represent.

Texas State Soil and Water Conservation Board

Member Name	Region	Term	Residence
Aubrey L. Russell	#1	May 3, 2005 – May 1, 2007	Panhandle
Reed Stewart	#2	May 4, 2004 – May 2, 2006	Sterling City
José O. Dodier, Jr.	#3	May 3, 2005 – May 1, 2007	Zapata
Jerry D. Nichols	#4	May 4, 2004 – May 2, 2006	Nacogdoches
W.T. "Dub" Crumley	#5	May 3, 2005 – May 1, 2007	Stephenville
Larry D. Jacobs	Appointed	June 20, 2005-February 1, 2006	Montgomery
Joe L. Ward	Appointed	June 20, 2005-February 1, 2007	Telephone

STAFF

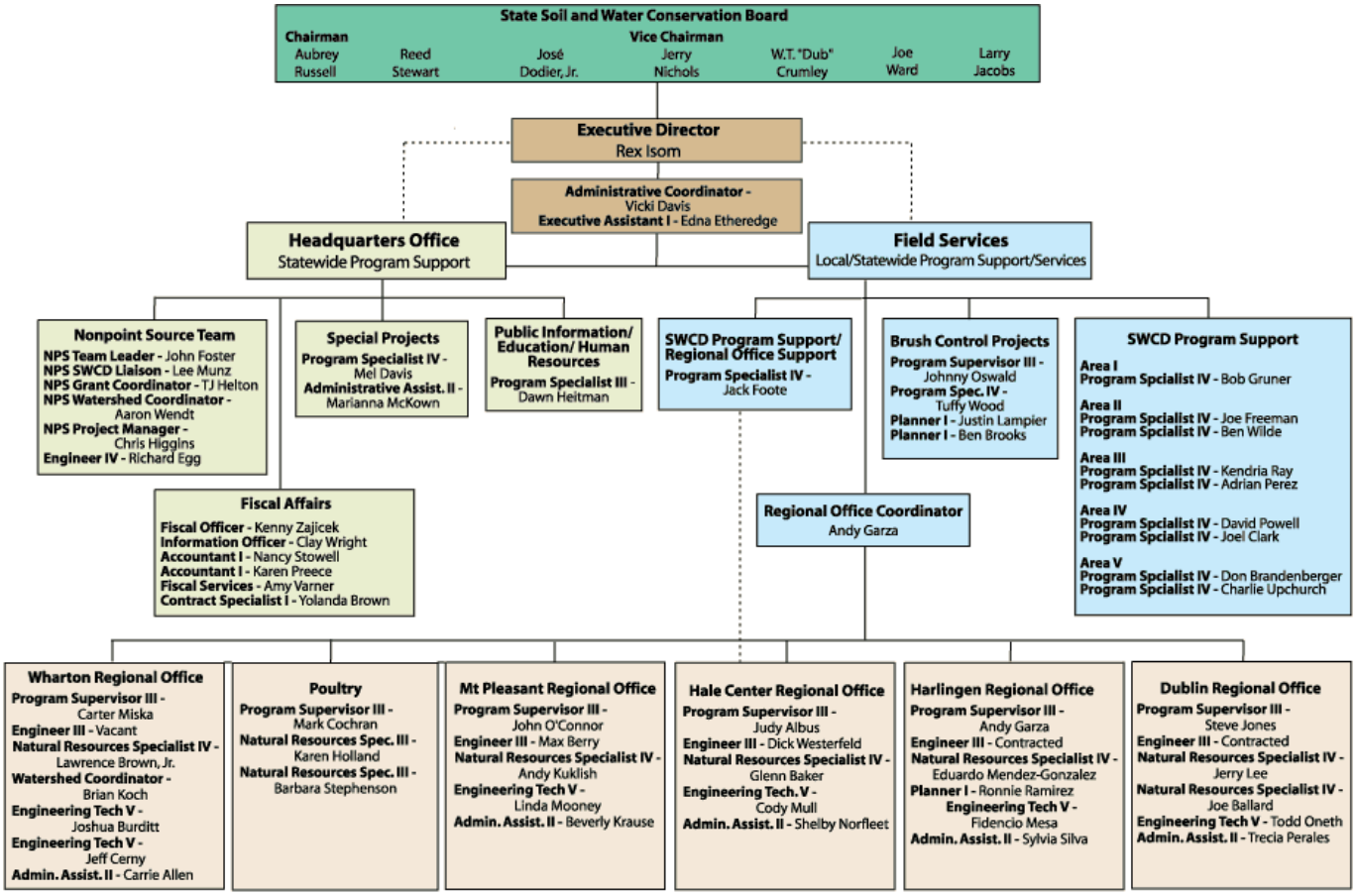
Mr. Rex Isom was named as the Executive Director in January 2004 and continues to carry out the directives of the State Board and directing staff efforts.

We emphasize our agency philosophy as stated in our Strategic Plan, "The State Soil and Water Conservation Board will act in accordance with the highest standards of ethics, accountability, efficiency, and openness. We affirm that the conservation of our natural resources is both a public and a private benefit, and we approach our activities with a deep sense of purpose and responsibility." Mr. Isom, as Executive Director, is leading the agency in that direction and expects all employees to follow that lead.

As of December 1, 2005 the TSSWCB employed 61 staff, 17 of which work in the Temple headquarters. The remaining 44 employees are field staff, either working out of their homes or located in seven satellite offices; five regional offices and two program specific offices, located throughout the state. Due to difficulty in recruiting engineers, two field engineer positions remain contracted. The following organization chart shows the agency's current structure.

The current structure of the TSSWCB now reflects efforts to place more personnel in the field and away from headquarters for a 72% to 28% ratio of Field personnel to Headquarters personnel.

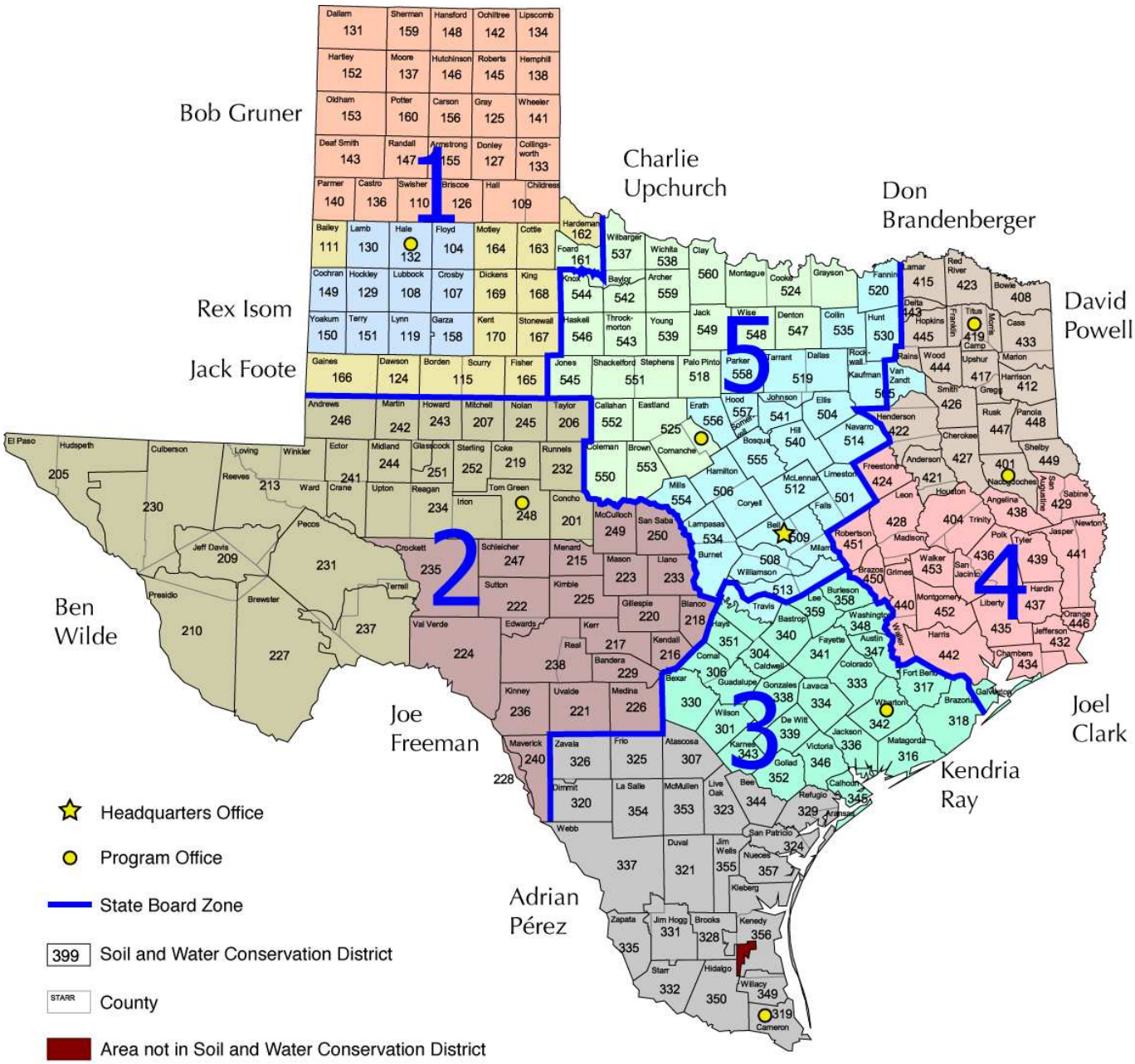
The regional office staff along with the program specific staff provides on-site technical assistance to farmers and ranchers. The field staff serves as a liaison between the TSSWCB and local districts. The field staff also provides assistance to local districts and district employees concerning operations, programs, and activities. The regional office staff and the program specific staff coordinates with the Texas Commission on Environmental Quality (TCEQ), Texas Cooperative Extension (TCE), and the USDA's Natural Resource Conservation Service (NRCS) to provide technical assistance to landowners to implement Water Quality Management Plans (WQMPs).



Soil And Water Conservation Districts

The TSSWCB performs many of its activities in coordination with the state's 217 local soil and water conservation districts. These local districts are political subdivisions of the state, established through local option elections of agricultural landowners. Districts generally reflect county boundaries, but may also follow river basin or watershed boundaries, depending on the desires of the local landowners.

The following soil and water conservation district map shows the current 217 local districts that cover almost the entire state. That portion of the state not in a soil and water conservation district is in Kenedy County and contains the privately owned King Ranch. The map also shows the grouping of the districts into the five State Board Districts that respectively elect a State Board member and shows the field staff that is assigned to work with each district within a specific area.



Landowners within these local districts elect the five district directors that comprise the districts governing body or board of directors. This board of directors administers the programs and activities of the district. Representatives of the districts within each region then elect the members of the State Board through a series of convention style-elections.

Districts do not have taxing authority and rely on locally generated funds from various activities and programs, federal assistance, county assistance, and state assistance from the TSSWCB. The USDA Natural Resource Conservation Service (NRCS) provides most of the federal assistance available to districts and through cooperative agreements provides technical assistance to farmers and ranchers requesting assistance from the district.

ANNUAL STATE MEETING OF SOIL AND WATER CONSERVATION DISTRICT DIRECTORS

The Annual State Meeting of Soil and Water Conservation District Directors, required in §201.081, Texas Agriculture Code, convened in Corpus Christi last October. There were 141 districts represented, with 365 individual district directors that registered for the meeting. The total registration was 876.

For the 2006 calendar year, the state meeting is scheduled for October 23-25 in Fort Worth.

DIRECTOR MILEAGE AND PER DIEM

Due to the reductions in staff at the headquarters office, director mileage and per diem claims are now managed directly by districts. The TSSWCB sent each district 75% of their approved allocation (grant). The remaining 25% will be used as a pool for any expenses not covered through the initial allocation (grant). Field staff will approve each claim before payment to ensure claims are accurate and comply with state statutes and guidelines. The FY06 state appropriation for this program is $325,000.00.

DISTRICT TECHNICAL ASSISTANCE FUNDS

The TSSWCB 2006-2007 Appropriation revised the allocation method for technical assistance funds. On September 1, 2005, the TSSWCB will begin disbursing technical assistance payments on a reimbursing basis only. The FY06 state appropriation for this program is $1,036,241.00.

AGRICULTURAL WATER CONSERVATION GRANT

Sub-chapter H funds were appropriated to the TSSWCB from the Agricultural Soil and Water Conservation Account No. 563. Senate Bill 1053 enacted by the 78th Legislature moved the bond that funded Account No. 563 to the Texas Water Development Board (TWDB). Account No. 563 no longer exists and future funding for what was Sub-chapter H grants will come from the TWDB in the form of competitive Agricultural Water Conservation Grants. The TWDB adopted rules and developed a grant application process for distributing the funds from the fund. The TSSWCB, on behalf of districts, applied to the TWDB for grant funding to continue the water conservation program previously supported by the sub-chapter H program. Soil and water conservation districts (SWCDs) provide technical and planning assistance to agricultural producers for implementing conservation best management practices (BMPs) on their farms and ranches.

The Texas State Soil and Water Conservation Board (TSSWCB) received an Agricultural Water Conservation Grant of $115,000.00 from the Texas Water Development Board (TWDB) for FY2004. The funds from the grant were allocated to eligible SWCDs to support technical assistance in planning agricultural water conserving BMPs on farms and ranches.

Eligible BMPs were those that directly or indirectly produced water savings and those that reduced erosion, a cause of increased sedimentation of Texas' surface water reservoirs.

The grant award of $115,000 supplemented approximately $950,000 in technical assistance funding allocated to local SWCDs for support of planning and implementing agricultural water conserving Best Management Practices (BMPs) on farms and ranches.

A total of 197 SWCDs statewide were eligible and willing to participate in this program. The assistance performed by these SWCDs has resulted in an estimated 341,729 ac-ft potential water savings for the State or approximately 2.97 ac-ft of water conserved for each state dollar spent. The FY05 Agricultural Water Conservation Grants from TWDB were awarded last spring. The TSSWCB received a grant of $100,00.00. The funds from the grant were again allocated to eligible SWCDs to support technical assistance in planning agricultural water conserving BMPs on farms and ranches.

DISTRICT CONSERVATION ASSISTANCE PROGRAM

District Conservation Assistance funds are appropriated to the TSSWCB from general revenue funds. Of the 217 local soil and water conservation districts, 216 districts request to receive an allocation (grant) from these funds. Local districts receive these funds as a dollar for dollar match for money that they generate locally through various activities. The local districts use this money to pay operational expenses. The FY06 state appropriation for this program is $916,364.00.

PROGRAMS & ACTIVITIES OF THE TSSWCB

The services and programs provided by the TSSWCB target rural Texas farmers and ranchers, but the results of these services benefit all Texans. For example, many of the flood control structures maintained by soil and water conservation districts serve to protect heavily populated areas from flood damage, and also prevent sediment from building up in suburban drinking water supplies. Another example is the use of best management practices, implemented through TSSWCB-certified water quality management plans, to prevent pesticides, nutrients, and other contaminants from impairing Texas waters.

The agency is responsible for numerous natural resource conservation efforts, the most prominent of which is serving as the lead state agency for the prevention, management, and abatement of nonpoint source pollution resulting from agricultural and silvicultural, or forestry-related, activities. As a result, the majority of the agency's programs and services aim to improve and protect water *quality*. The TSSWCB is also responsible for water conservation, or water *quantity*. The major existing program addressing water conservation is the Texas Brush Control Program, although the agency is conducting preliminary work on a new program that would provide assistance to Texas landowners who irrigate cropland from both ground and surface water sources. The Water Conservation Taskforce, created by Senate Bill 1094 from Senator Duncan, issued a final report to the Legislature recommending a state cost-share program be implemented through the TSSWCB to assist landowners in implementing best management practices that conserve water resources. If the agency is asked to fully develop the new program by the Legislature, it would likely be patterned after the Water Quality Management Plan Program created by Senate Bill 503 in 1993. Other responsibilities include prevention of soil erosion, control of floods, maintaining the navigability of waterways, the preservation of wildlife, protection of public lands, and providing information to landowners regarding the jurisdictions of the TSSWCB and the Texas Commission on Environmental Quality related to nonpoint source pollution. The TSSWCB has no regulatory functions; all of the agency's programs and services are voluntary in nature.

TOTAL MAXIMUM DAILY LOAD (TMDL) PROGRAM

The 1972 federal Clean Water Act (CWA) §303(d) requires all states to identify waterbodies that do not meet water quality standards and are not supporting their designated beneficial uses. Each state must submit an updated list of these impaired waterbodies, called the 303(d) List, to the U.S. Environmental Protection Agency (USEPA) every two years. Once placed on the 303(d) List, a state must develop a

Total Maximum Daily Load (TMDL) for the particular pollutant that is causing the impairment. This TMDL defines the amount of that pollutant that waterbody can assimilate and still meet water quality standards and support its designated beneficial uses. Based on this environmental target, a state then develops an implementation plan prescribing the measures necessary to mitigate anthropogenic (human-caused) sources of that pollutant in that waterbody. The TMDL and the implementation plan together serve as the mechanism to reduce the pollutant, restore the full use of the waterbody and remove it from the 303(d) list. USEPA must approve the TMDL, but the implementation plan only requires state approval.

In Texas, the responsibility to develop TMDLs is shared between two state agencies – the Texas State Soil and Water Conservation Board (TSSWCB) and the Texas Commission on Environmental Quality (TCEQ). TCEQ is the lead agency for protecting Texas' water quality. Except that, responsibility for managing nonpoint source (NPS) pollution is shared with TSSWCB. TSSWCB is the lead agency in Texas responsible for planning, implementing and managing programs and practices for abating agricultural and silvicultural NPS pollution. TCEQ administers the NPS program for all other forms of NPS pollution including urban, commercial and residential.

TSSWCB is actively engaged in the implementation of several approved TMDLs with agricultural or silvicultural NPS components:

- Aquilla Reservoir – Atrazine (Approved 2002)
- E.V. Spence Reservoir – Salinity (Approved 2001)
- North Bosque River – Nutrients (Approved 2002)

Additionally, TSSWCB is actively involved in the development of TMDLs for waterbodies impaired, at least in part, by agricultural or silvicultural NPS pollution:

- Adams and Cow Bayous – Bacteria, Dissolved Oxygen, and pH
- Arroyo Colorado – Dissolved Oxygen
- Atascosa River – Bacteria
- Buck Creek – Bacteria
- Clear Creek – Bacteria
- Colorado River below E.V. Spence Reservoir – Salinity
- Copano Bay and Aransas and Mission Rivers – Bacteria
- Dickinson Bayou – Dissolved Oxygen
- Elm and Sandies Creeks – Bacteria and Dissolved Oxygen
- Gilleland Creek – Bacteria
- Guadalupe River above Canyon Lake – Bacteria
- Lake O' the Pines – Dissolved Oxygen
- Leon River – Bacteria
- Lower San Antonio River – Bacteria
- Oso Bay and Oso Creek – Bacteria and Dissolved Oxygen
- Peach Creek – Bacteria
- Upper Oyster Creek – Bacteria and Dissolved Oxygen
- Upper Trinity River – Bacteria

Various TSSWCB Programs, such as the CWA §319(h) Grant Program or the WQMP Program, target these waterbodies for abatement projects as federal and/or state funding becomes available. These programs are described in detail in other sections of this Semi-Annual Report. Many of these

waterbodies, have projects currently in progress implementing practices to prevent and abate agricultural and silvicultural NPS pollution. For more information on the TSSWCB Total Maximum Daily Load Program, visit our website at http://www.tsswcb.state.tx.us/programs/tmdl.html.

Clean Water Act, §319(H) Nonpoint Source Grant Program

Background

Congress enacted Section 319(h) of the Clean Water Act in 1987, establishing a national program to control nonpoint sources of water pollution. Through Section 319(h), federal funds are provided through the EPA to states for the development and implementation of the State's Nonpoint Source Management Program. The 319(h) funding in Texas is divided evenly between the TCEQ and TSSWCB. The following report provides an overview of TSSWCB's 319(h) program status and major ongoing activities.

State Nonpoint Source Management Plan

An approved management plan is a requirement for receiving 319 Grant funding. Because the State's overall Nonpoint Source Program is jointly administered between the Texas Commission on Environmental Quality (TCEQ) and the TSSWCB, both agencies recently revised the Texas Nonpoint Source Management Program Report for the years 2005 through 2010. The report, which went through extensive public comment and review, was approved by the TSSWCB on September 15, 2005, and by TCEQ on October 26, 2005. The document was certified by the Attorney General's Office and was submitted by the Governor to the Regional Administrator for U.S. EPA Region 6 on December 15, 2005.

2004 Annual Report

In order to receive 319 funds, the State of Texas must also submit a report on the activities of the Texas NPS Pollution Program annually. The TCEQ develops the report on odd numbered years and the TSSWCB develops the report on even numbered years. Currently the TSSWCB staff and TCEQ staff are working together to develop the FY 2005 Annual Report.

Project Management

There are currently 66 ongoing 319 projects (Attachment 2). The $30 million provided to these projects through Clean Water Act, §319(h) Nonpoint Source Grants between 2000 and 2005 is being utilized to abate NPS pollution from poultry operations and dairies, runoff of atrazine from cropland, salt cedar, watershed planning, groundwater quality improvement, assessing sources of bacteria, educational programs for the forest industry, and many other projects (Figure 1). Quarterly reports for ongoing projects were received on July 15, 2005 and October 15, 2005. To date, project reports have been received for 100% of the projects. These reports are entered into EPA's Grant Reporting Tracking System. The TSSWCB also conducts financial audits on one 319 projects each quarter. During the 1st quarter of FY2006, an audit was conducted on the Delta SWCD 319 project on October 14, 2005. The Texas A&M University System under went an audit during the 2nd quarter.

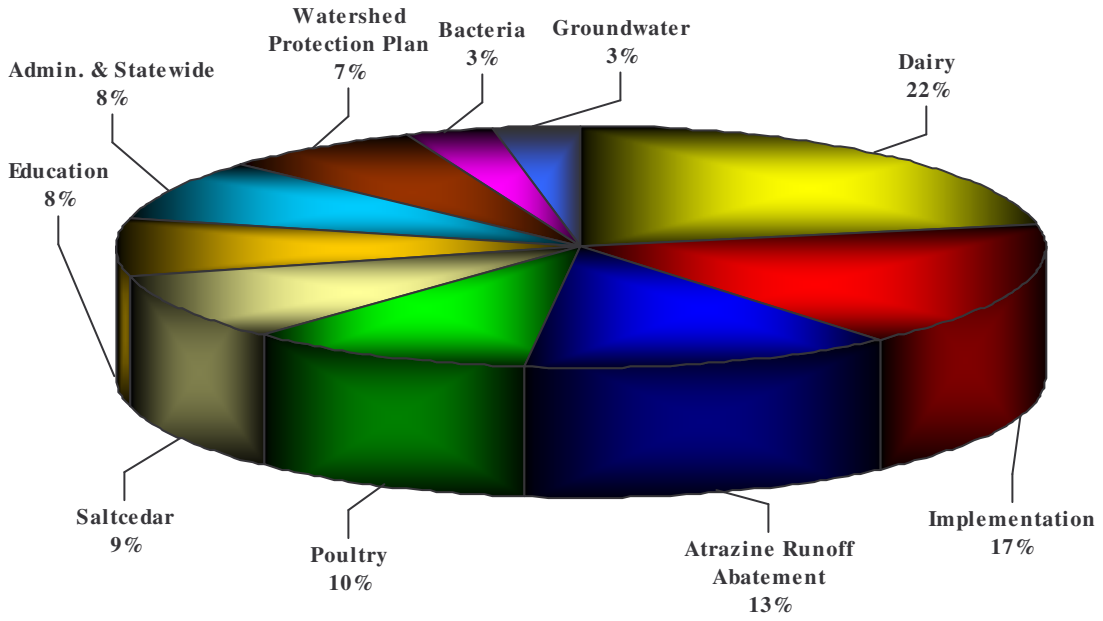


Figure 1.0 TSSWCB active federal 319(h) grants for FY 2000 – FY 2005.

WATERSHED PROTECTION PLAN PROGRAM

Watershed protection planning is a process to develop and implement a locally driven Watershed Protection Plan (WPP) designed to protect unimpaired surface waters from pollution threats and ameliorate impaired, polluted surface waters. This mechanism addresses complex water quality problems that cross multiple jurisdictions. WPPs serve as tools to better leverage the resources of local governments, state and federal agencies, and non-governmental organizations. WPPs integrate activities and prioritize implementation projects based upon technical merit and benefits to the community and watershed, promote a unified approach to seeking funding for implementation, and create a coordinated public communication and education program.

WPPs have a variety of ingredients and can take many forms. TSSWCB watershed protection planning projects utilize guidelines promulgated by the U.S. Environmental Protection Agency (USEPA) in 2003. These guidelines describe nine elements fundamental to a potentially successful plan.

TSSWCB provides guidance and technical assistance to local stakeholder groups in developing and implementing WPPs through one of three mechanisms. One, a TSSWCB Regional Watershed Coordinator facilitates the WPP process in watersheds throughout their service area. Currently, the Wharton Regional Office is piloting this method. Two, through the TSSWCB CWA §319(h) Grant Program, other entities are granted funds necessary to facilitate the WPP process in a specific watershed. Three, TSSWCB staff participate in and provide technical assistance to WPP projects funded and facilitated by other entities.

TSSWCB funded WPP projects include:

- Concho River – Upper Colorado River Authority
- Lake Granger – Brazos River Authority
- Little Wichita River – Texas Institute for Applied Environmental Research
- North Bosque River – Brazos River Authority
- Pecos River – Texas Cooperative Extension

- Plum Creek – TSSWCB Wharton Regional Office
- Southeast and South Central Texas – TSSWCB Wharton Regional Office
- Texas Master Watershed Steward Program – Texas Cooperative Extension

TSSWCB engaged WPP projects funded by other entities include:

- Arroyo Colorado – Texas Sea Grant (funded by TCEQ)
- Dickinson Bayou – Texas Sea Grant (funded by TCEQ)

In order to abate agricultural and silvicultural nonpoint source pollution, WPPs will implement components of other TSSWCB Programs, such as the WQMP Program or the Brush Control Program. Additionally, the CWA §319(h) Grant Program can serve as a funding source to implement the agricultural and silvicultural components of WPPs. These programs are described in detail in other sections of this Semi-Annual Report. For more information on the TSSWCB Watershed Protection Plan Program, visit our website at http://www.tsswcb.state.tx.us/programs/watershed.html.

Water Quality Management Plan (WQMP) Program

In 1993, the Texas Legislature passed Senate Bill 503 that directed the TSSWCB to implement Water Quality Management Plans (WQMPs) in Texas. The agency has implemented more than 6000 WQMPs since the inception of the program.

The WQMP Program is administered from five Regional Offices around the state. A poultry WQMP office will open in Nacogdoches in January 2005. The Regional Offices are:

- Dublin Regional Office
- Hale Center Regional Office
- Harlingen Regional Office
- Mount Pleasant Regional Office
- Wharton Regional Office
- Poultry Program Office (Nacogdoches - Coming in January 2005)

A WQMP is a site-specific conservation plan developed through (and approved by) SWCDs for agricultural or silvicultural lands. The plan includes appropriate land treatment practices, production practices, management measures, technologies or combinations thereof. The purpose of WQMPs is to achieve a level of pollution prevention or abatement determined by the TSSWCB, in consultation with local soil and water conservation districts, that is consistent with state water quality standards.

The TSSWCB selected requirements for a WQMP based on the criteria outlined in the *Field Office Technical Guide (FOTG)*, a publication of the United States Department of Agriculture's Natural Resources Conservation Service (NRCS).

Nutrient management must be included if nutrients are applied. If an animal feeding operation is involved (such as an unpermitted dairy), a WQMP will be planned with practices that individually or in combination with other practices will properly manage animal wastes. Waste utilization will be considered when agricultural wastes are applied. These WQMPs also have subcomponents for irrigation waters, erosion control, and are flexible enough to cater to a wide range of operating systems.

Agricultural and forestry landowners may enter into these cooperative agreements with their local district to control nonpoint source pollution from their operations. While the decision to develop a plan is voluntary, landowners have many reasons to do so. These plans provide for landowners to use best management practices in their operations to protect their most precious agricultural resources by controlling erosion, conserving water, and protecting water quality. In addition, certified plans have the same legal status as Texas Commission on Environmental Quality (TCEQ) point source pollution permits, without having to go through that agency's regulatory process. Landowners may also receive financial incentives to help pay for implementing these plans.

It should be noted that an animal feeding operation that is required by law to operate within the confines of a water quality permit issued by the TCEQ cannot participate in the TSSWCB program.

Water Quality Management Plans are especially useful for animal feeding operations. Depending on their size, animal feeding operations may be regulated by TCEQ as a point source or are unregulated and eligible for the TSSWCB's voluntary program. Generally, these feeding operations are classified according to the number of animals they have, calculated as "animal units"; however, TECQ has adopted rules that provide if you have or exceed a certain number of animals, you will be regulated. Animal feeding operations with more than the number of animals listed in TCEQ rules must apply for a permit. Most animal feeding operations in Texas are not large enough to require a permit, which makes this program critical to protecting Texas' water quality.

In developing the Water Quality Management Plan, the TSSWCB, SWCDs, and the USDA Natural Resources Conservation Service (NRCS) provide technical assistance to help the landowner meet the criteria of the plan. A plan establishes practices and installations on the farm that adhere to best management practices specific for that area. The various installations that a plan calls for depend on the operation. A farm may include a combination of cropland, dairy cows, poultry, hogs or cattle.

These plans may also include erosion control measures such as terraces or grass waterways; or they may address nutrient management to help landowners avoid over-fertilizing their land, or over-applying animal waste. Although a plan will take into consideration each farm's unique components, all WQMPs generally attempt to control erosion, conserve water, and protect water quality.

Upon TSSWCB certification of a WQMP, a landowner may apply for a financial incentive that will help pay for implementing the plan. Local districts have varying rates for sharing the cost of plan implementation, however cost-share may not exceed 75% with a maximum $10,000 grant limit per plan. Landowners receiving financial incentive have approximately are now given a specific time period to implement conservation practices, otherwise, their applications are cancelled automatically and the funds are reallocated to another plan. This approach hopefully will reduce the amount of lapsed funds.

The TSSWCB allocates money to local districts for financial incentives based on whether the area has impaired water bodies as determined by TCEQ, or if the TSSWCB had previously designated it as a priority. Most of these financial incentives were appropriated from General Revenue funds. Some plans received financial incentives from federal funds. State appropriations provided to local districts in FY05 amounted to $2,226,042.00 to carry out a WQMP cost-share program in their district.

In addition to certifying WQMPs to ensure that they help abate nonpoint source pollution, the TSSWCB monitors WQMPs to ensure they are properly implemented. Each year, the TSSWCB conducts status reviews on a minimum of 10% of the plans. Additional technical assistance may be offered to a

landowner when a WQMP is found noncompliant. In the unlikely case that the landowner does not achieve compliance with the WQMP, the TSSWCB may decertify the plan.

During FY03, the WQMP Program was administered from the TSSWCB office in Temple. The staff reductions in the FY04 budget made it necessary for the program to be reorganized and the Regional Offices activities are now coordinated through the Harlingen Regional Office. Additionally, plan certification authority was shifted from the Temple headquarters to each regional office. This change is already expediting the certification process and reducing postage expenditures, while maintaining the integrity and standards of the program.

The last adjustment involved the complaint process, which was also administered out of the headquarters office during FY03. Headquarters office no longer has an individual to do complaint inspections and all complaints are investigated from the appropriate Regional Office.

Current Status

A total of 786 water quality management plans were certified in FY-05. The deadline for districts to obligate FY-06 cost-share funds is 4-30-06.

An internal audit on the water quality management program was conducted during the summer of 2005. Eleven recommendations resulted from the audit. All recommendations were accepted and are in various stages of implementation.

Poultry Water Quality Management Plan (WQMP) Initiative

In 1994, the Texas State Soil and Water Conservation Board (TSSWCB) began assisting poultry operations with the establishment of the Northeast Texas - Senate Bill 503 Cost-share Area. Since 1994, over $300,000 of WQMP Program funding has been provided annually to six soil and water conservation districts (SWCDs) in Northeast Texas to address animal feeding operations (AFOs). Shelby SWCD began receiving SB 503 funds in FY 2005.

In 1995, the TSSWCB initiated three Clean Water Act, §319(h) projects to demonstrate composting as a means for dead bird disposal, buffer strips, and proper land application of poultry litter. In 1996, the TSSWCB expanded its efforts by initiating a composting and marketing project. This effort to promote the installation of composters and other means of mortality management on poultry farms resulted in accelerated WQMP development.

In 1997, the Texas Legislature passed Senate Bill 1910, which required all poultry farms to have a TCEQ-approved method of dead bird disposal. The law took effect in March 1998. However, the rules were not adopted and did not take effect until fall 1999. It was during this time that requests for poultry-WQMPs significantly increased due to pursuit of cost-share for mandated mortality management. This activity intensified the TSSWCB's poultry initiative.

In response to water quality concerns and the initiation of TMDL development in the Big Cypress/Lake O' the Pines watershed in 1999, the TSSWCB began using §319 funds for cost-share in the area in addition to the Senate Bill 503 cost-share funds already directed to the watershed. Due to rising concerns in nearby watersheds, the TSSWCB also included the Sam Rayburn and Toledo Bend Reservoir

watersheds in its initiative in 1999. The TSSWCB expanded the poultry initiative again in 2001 to the Gonzales area.

All together, the TSSWCB has focused over $5 million in §319 funding and over $3 million in state funding to assist poultry operations with abating NPS pollution in Texas. Another $2.9 million in USDA-NRCS Environmental Quality Incentives Program (EQIP) funding was obligated to assist poultry producers in Northeast Texas and Gonzales County from 2000 to 2003.

The 77th Legislature, in 2001, passed Senate Bill 1339, which requires all poultry facilities in Texas to operate in accordance with a WQMP certified by the TSSWCB. The review and certification process assures the plan includes appropriate practices, management measures, and schedules of implementation.

This law provides a staggered-schedule of deadlines by which each producer, depending on their initial date of operation, must have requested the development of a WQMP from their soil and water conservation district. Any poultry facility constructed after January 1, 2002 is required to have a WQMP prior to the receipt of any birds.

Currently, the TSSWCB is aware of 1488 total dry-litter poultry farms, of which 1368 (92%) currently operate under a certified WQMP. The TSSWCB estimates that 45 farms need to request a plan before January 2008. The other estimated 75 farms have already requested a plan and those plans are in various stages of development. However, there is an ongoing challenge of identifying new poultry farms continually being constructed and put into production and locating other poultry farms not yet identified.

Since 2001, seven soil and water conservation district (SWCD) technicians have been employed under Federal Clean Water Act §319 contracts to develop WQMPs in poultry producing areas. Six of those contracts expired in 2004. The seventh expired in August 2005. An eighth §319 district technician was hired in 2003 with the Shelby SWCD and that contract will expire in March 2007. Three SWCD technicians were hired with funding from SB 1339 and those projects will expire in August 2006. As a result of expiring contracts, there has been a substantial reduction of available staff for developing new plans, conducting status reviews, and revising plans as needed. As currently contracted, only 4 SWCD technicians remain available to assist with poultry WQMP development and review during FY 2006 and only one technician will continue into FY 2007.

Due to changes made by the U.S. Environmental Protection Agency (EPA) to the federal regulations for concentrated animal feeding operations (CAFOs), the Texas Commission on Environmental Quality (TCEQ) adopted a rule change in 2004 that requires dry-litter poultry operations larger than 125,000 or more broilers or pullets, 82,000 or more layers or breeders, or 55,000 turkeys to operate under a water quality permit. Prior to this change in the federal regulations, dry-litter poultry operations were not required to have a permit. The requirement for a permit was initially scheduled to become effective in April 2006. However, due to a federal court decision by the U.S. 2nd Circuit Court of Appeals in February 2005, the EPA has issued a notice that the date by which a permit must be obtained will be extended to allow for rule changes mandated by the court. The new deadline date and whether dry-litter poultry operations will be required to obtain a permit are still pending release by EPA. TSSWCB estimates between 200-500 dry poultry operations would meet the current requirements for a permit. The final CAFO Rule adopted by TCEQ recognizes that a poultry operator's existing WQMP meets the majority of the technical requirements required by a permit. The TSSWCB staff has a new guidance document, *Converting Water Quality Management Plans into Pollution Prevention Plans on Dry Litter Poultry Operations Requesting General Permit Coverage*, to assist poultry producers in utilizing their existing

WQMPs as a component to the general permit, which will be available in the event permitting is required. If permitting is eventually required, TSSWCB will perform status reviews on 20% per year of the permitted operations that use WQMPs as a permit component. TSSWCB will transmit information on each of these status reviews to TCEQ on a quarterly basis. Noncompliant producers will be referred to TCEQ under an existing process.

In FY 2006, the TSSWCB Poultry Office, located in Nacogdoches, continues to develop, update, and review Water Quality Management Plans for poultry producers and provide assistance with all issues related to the Poultry WQMP Program. The office is staffed by the Poultry Program Supervisor and two Natural Resource Specialists. Approximately 677 (45%) of the estimated 1488 dry-litter poultry farms in Texas are located in an eight-county area surrounding Nacogdoches. Approximately 75 (11%) of the farms in those counties still need a WQMP developed. The office also assists other soil and water conservation districts in the state with poultry WQMP development as needed.

The following is a summary of the status of farms statewide needing a WQMP that TSSWCB is currently aware of:

Date Due	Status	Number of Farms
1/1/2002	Not Signed-up	0
1/1/2002	Plans in Progress	0
1/1/2003	Not Signed-up	0
1/1/2003	Plans in Progress and/or Signed-up	2
1/1/2005	Not Signed-up	0
1/1/2005	Plans in Progress and/or Signed-up	1
1/1/2008	Not Signed-up	45
1/1/2008	Plans in Progress and/or Signed-up	56
Unknown	Not Signed-up	0
Unknown	Plans in Progress and/or Signed-up	16
Subtotal:		120
Unknown	Additional Gonzales area farms*	30
Total:		150

* One integrator in the Gonzales area has indicated approximately 30 farms that are or have been wet operations and required permits will now convert to dry operations and will need WQMPs.

NORTH BOSQUE RIVER WATERSHED INITIATIVE

In 1998 the North Bosque River (Segments 1226 and 1255) was included in the Texas CWA §303(d) List of impaired waters under narrative water quality standards related to nutrients and aquatic plant growth.

In February 2001, the TCEQ adopted *Two Total Maximum Daily Loads for Phosphorus in the North Bosque River* for segments 1226 and 1255.

The TMDLs concluded that:

- Use of the two segments was "impaired" by high levels of nutrients.
- The nutrient of principal concern was soluble reactive phosphorus (SRP)
- Reduction of SRP of approximately 50% would reduce the potential for problematic algal growth in the river.
- The major controllable sources of nutrients in the North Bosque River basin were municipal wastewater treatment plants (WWTPs) and NPS pollution from dairy waste application fields (WAFs).

In December 2002, both the TCEQ and the TSSWCB adopted *An Implementation Plan for Soluble Reactive Phosphorus in the North Bosque River Watershed*. The four basic elements of phosphorus control identified in the plan were:

- Phosphorus application rates in WAFs.
- Reduced phosphorus diet for dairy cows to reduce the phosphorus content of dairy wastes.
- Removing approximately half of the dairy-generated manure from the North Bosque River watershed for use or disposal outside of the watershed.
- Effluent limits on phosphorus for municipal wastewater treatment plants.

Before and since the adoption of the Implementation Plan, the TSSWCB TMDL Program has been actively working on numerous projects and programs designed to assist the agricultural community in meeting its recommendations and requirements. Clean Water Act §319(h) Grant Program funding has been used extensively to assist in the development and implementation of the North Bosque River TMDL. Currently, seven CWA §319(h) are actively assisting the implementation of the North Bosque River TMDL. All of the efforts explained in the following discussions are in support of the TMDL and the Implementation Plan.

DAIRY MANURE EXPORT SUPPORT (DMES) PROGRAM

The TSSWCB initiated the Dairy Manure Export Support (DMES) program in an effort to bring an innovative solution to the problem of elevated phosphorus levels in the North Bosque and Leon River Watersheds. The DMES program offers financial incentives to commercial manure haulers to support the transport of raw manure from dairy farms in the North Bosque and Leon River Watersheds to commercial composting operations. The raw manure is then improved through a composting process so it may be put to beneficial use. Entities such as the Texas Department of Transportation and municipalities, as well as agricultural producers and the general public are some of the target purchasers of the composted product. The TCEQ, TSSWCB's partner in the overall regional program, provides rebates to these target purchasers to facilitate the development of a sustainable market. The export of this surplus manure (and the nutrients contained in the manure) will help address concerns regarding potential NPS water quality impacts associated with traditional on-farm land application of manure in the region.

Overall DMES program management is controlled through the TSSWCB. The TSSWCB has contracted everyday activities to the Texas Institute for Applied Environmental Research (TIAER) at Tarleton State University. In April 2001, TIAER subcontracted many aspects of the program to the Foundation for

Organic Resources Management (FORM), which was replaced by imanage, LLC in July 2003. Through FORM, and later imanage, LLC, the DMES program has been managed at the local level through a DMES program office located in Stephenville, Texas. The TSSWCB has contracted TIAER to manage the program through September 30, 2006..

Participation requirements for dairies include being located in the North Bosque and/or Leon River Watersheds. Dairies must have (or have applied for) a TSSWCB–certified Water Quality Management Plan or a TCEQ water quality permit and an approved nutrient utilization plan. Each composting facility must be compliant with all state regulations regarding compost facilities and be approved for participation in TCEQ's Composted Manure Incentive Project (CMIP). Manure haulers must attend a workshop convened by the TSSWCB's contractor and obtain a vendor number from the Texas State Comptroller and authorize direct deposit.

Individual hauling jobs are coordinated through manure haulers that make arrangements with dairies and commercial composting operations. A manure hauler completes a job notification form, which is then submitted to the DMES office for approval. Once approval is received, the manure hauler performs the work and submits an invoice to the DMES office, which is signed by a representative of the dairy, accompanied by load tickets signed by a representative of the composting facility, and a scale ticket for each load. The DMES office prepares semi-monthly reimbursement request summaries, has them approved by TIAER, and then submits them to the TSSWCB for payment. Because the TSSWCB is using Clean Water Act §319(h) funding from the U.S. Environmental Protection Agency (EPA), the TSSWCB must then request that the funds be released from EPA to the TSSWCB. The TSSWCB then issues reimbursements via direct deposit to the manure haulers.

The initial goal of the DMES program was to export 300,000 tons of manure from participating dairy farms during in a three-year project period from November 2000 through October 2003. That benchmark was exceeded in less than two years. Based on remaining funds, the DMES program was projected to end in September 2005. However, an additional appropriation from the 79th Texas Legislature and a CWA §319(h) grant through the TSSWCB will enable the project to be phased out at a reduced reimbursement rate over the course of an additional year.

As of November 30, 2005 more than 930,000 tons of manure has been hauled to commercial composting facilities. It is estimated that this prevented the land application of more than 3 million lbs of phosphorus.

COMPREHENSIVE NUTRIENT MANAGEMENT PLAN (CNMP) PROGRAM

The TSSWCB Comprehensive Nutrient Management Planning (CNMP) Program was developed in response to a control measure recommended in the *Implementation Plan for the North Bosque River Total Maximum Daily Load for Soluble Reactive Phosphorus*. The implementation plan recommended that dairy producers in the watershed voluntarily develop and implement a CNMP, however, the Texas Commission on Environmental Quality (TCEQ) adopted a rule that makes the recommendation a requirement. This program is confined to the North Bosque River Watershed by TSSWCB rule.

A CNMP is a resource management plan containing a grouping of conservation practices and management activities which, when combined into a conservation system, will help ensure that both agricultural production goals and natural resource concerns dealing with nutrient and organic by-products and their adverse impacts on water quality are achieved. A CNMP incorporates practices to utilize animal manure and organic by-products as a beneficial resource. The TSSWCB selected requirements for a

CNMP based on the TCEQ rules and regulations required for permitted and unpermitted animal feeding operations and criteria outlined in the *Field Office Technical Guide (FOTG)*, a publication of the United States Department of Agriculture's Natural Resources Conservation Service (NRCS). The FOTG represents the best available technology and is already tailored to meet the needs of soil and water conservation districts all over the nation. To be certified by the TSSWCB, the local SWCD, the producer, and the local NRCS Field Office must approve a CNMP.

Although the TSSWCB adopted a set of technical criteria and program guidance that was customized for the specific resource concerns of the North Bosque watershed in 2003, recent changes to the technical requirements for permitted dairies under the TCEQ permitting program has resulted in the need for an update. The TSSWCB adopted an updated criteria and guidance document in May 2005.

TEXAS ATRAZINE INITIATIVE

BACKGROUND

Atrazine is a pre-emergent herbicide primarily used to control broadleaf and grassy weeds in corn and sorghum. Since it went on the market in 1958, it has become the most widely used herbicide in the United States.

It is classified as a restricted use herbicide due to its potential for groundwater contamination. Inconsistent with its restricted use designation, it is commonly found in W*eed and Feed* and other home and garden products, making it not only an agricultural issue, but an urban issue as well.

Atrazine, a chlorinated triazine herbicide, acts as a photosynthesis inhibitor. It is nontoxic to humans, having about the same toxicity as table salt. It has no adverse reproductive effects. It's not teratogenic or mutagenic. Only low levels of bioaccumulation may be expected in fish organs. It is nontoxic to birds and only slightly toxic to aquatic life.

Atrazine is, however, a possible human carcinogen (Class C). Due to this, a Maximum Contaminant Level (MCL) of 3 µg/L (micro-grams per liter) has been established for finished drinking water. A micro-gram would equate to 0.000,001 grams per liter of water.

Atrazine is persistent in the environment, having a field half-life of 60 days. It is moderately soluble in water and is not removed from drinking water by conventional water treatment methods. Activated carbon, ozonation, cation exchange, and UV treatment methods must be used to remove it from drinking water.

Because of its persistence, solubility, and widespread use, Atrazine is commonly found in surface water. A 1993-95 US Geological Survey (USGS) study of pesticides in urban and agricultural streams in the Trinity River Basin found Atrazine in 100% of samples from both sources. This suggests that Atrazine is both an agricultural and urban problem. The concentrations in the agricultural streams were, however, greater than the concentrations in the urban streams.

DEVELOPMENT OF THE TEXAS APPROACH

In Texas, testing of Atrazine in drinking water began in 1993. However, the method used only had a detection limit of 3 µg/L, and little detection was observed. In 1996, the state began using EPA (testing)

Method 525.2, which has a much lower detection limit 0.065µg/L. Once the state began using this new (testing) method, numerous detections began appearing around the state in both surface and groundwater supplies. Between 1996 and 1999, Atrazine was detected in 69 water supplies around the state. In addition to drinking water monitoring, some raw water monitoring for Atrazine has been performed, but it has been infrequent and project specific.

In 1995, due to a detection of 9.6 µg/L in Marlin City Lake, the Marlin City Manager contacted the TCEQ-Source Water Assessment and Protection (SWAP) team for assistance. The City of Marlin and TCEQ-SWAP team then approached EPA for federal assistance. In 1996, Marlin City Lake was designated an EPA Region 6 Pilot Source Water Protection Program project.

To deal with the growing number of Atrazine detections around the state, TCEQ-SWAP formed an "Atrazine Steering Committee" in 1997 (later, the committee was renamed the "Surface Water Protection Committee). Committee membership consisted of the TSSWCB, the TDA, Texas A&M University, Novartis, the USDA- NRCS, the USDA-Agricultural Research Service (ARS), the Texas Farm Bureau, the Brazos River Authority, and municipal representatives. The committee's goal was to develop a strategy to address the numerous detections of Atrazine in drinking water in a proactive manner through BMP implementation and public education.

In 1998, nine reservoirs were listed as impacted by Atrazine on the §303(d) List. One of these, Aquilla Reservoir was listed as impaired by Atrazine. The running annual average at the Aquilla Water Supply District's treatment plant for the second quarter of 1997 through the first quarter of 1998 was 4.0 µg/L, violating the drinking water standard (3 µg/L) and triggering the listing of Aquilla Reservoir as an impaired water of the state. The other eight reservoirs, Lake Bardwell, Joe Pool Lake, Marlin City Lake, Lake Lavon, Lake Tawakoni, Richland Chambers Lake, Lake Waxahachie, and Big Creek Lake, were listed as threatened by Atrazine.

Following the listing of these reservoirs on the §303(d) List, the state began developing and implementing an initiative to remediate the Atrazine threats and impairments consisting of:

- Performing a standard TMDL in Aquilla Reservoir
- Building on the Source Water Protection Program in Marlin City Lake
- Performing targeted monitoring and implementing BMPs in the 7 threatened lakes

IMPLEMENTATION OF THE ATRAZINE INITIATIVE

The Aquilla TMDL was initiated in November 1998. It was a cooperative effort among the Texas Agricultural Experiment Station (TAES), Texas Cooperative Extension (TCE), Texas Department of Agriculture, Texas A&M University, TCEQ, TSSWCB, NRCS, Novartis, and local stakeholders. Over $500,000 was provided for the Aquilla and Marlin projects through PPG funds, §§319(h), 604(b), Source Water Protection, TCEQ GR, and in-kind contributions. Stakeholder committees were formed for the Marlin and Aquilla projects. Training for pesticide applicators, demonstration of BMPs, and TEX*A*SYST was provided by the TAES in cooperation with the TCE. The Texas Agricultural Experiment Station conducted monitoring in the Aquilla and Marlin Watersheds. SWAT modeling of the watershed was completed as an in-kind contribution effort of NRCS, TDA, and TCEQ. Economic analyses of the implementation of BMPs on farms in both watersheds were also completed by the TAES.

The TMDL for Atrazine in Aquilla Reservoir was adopted by the TSSWCB and TCEQ in March 2001, and was revised in June 2002 in response to comments from the Environmental Protection Agency (EPA).

The implementation plan was approved by the TSSWCB and TCEQ in January 2002. Region 6 of the EPA approved the TMDL on October 30, 2002.

The TMDL stated that a load reduction of approximately 25% would result in attainment of the water quality standards.

The environmental target set for measuring the success of the TMDL implementation plan is a running annual average concentration of Atrazine *in the reservoir* that does not exceed 3.0 µg/L for two consecutive years.

The TCEQ and the TSSWCB had the leadership roles for implementing the project, as well as for developing the TMDL. The key groups involved in implementing the plan at the local watershed level were agricultural producers and city governments. Regionally, the key partners were Aquilla Water Supply District, the Woodrow-Osceola Water Supply Corporation, the Hill County Appraisal District, and the Hill County-Blackland Soil and Water Conservation District. The Texas Cooperative Extension (TCE) and the Texas Department of Agriculture (TDA) also implemented aspects of the project. The U.S. Army Corps of Engineers, the federal agency that owns and operates the lake, also cooperated.

Since the source of the Atrazine was known, some activities were initiated before the TMDL and its implementation plan were complete. In 1998, the NRCS established the Aquilla EQIP Priority Area. From 1998-2003, the NRCS obligated over $2 million to implement BMPs in the Aquilla Watershed. Along with the EQIP funding, the TSSWCB initiated a §319 project in 1999 to provide cost-share and technical assistance through the Hill County-Blackland SWCD to encourage the implementation of BMPs in the Aquilla Watershed to reduce sediment and pesticide runoff from corn and sorghum farms.

In 1999, Aquilla area farmers formed a Producers Atrazine Action Committee. Meetings featured speakers on water quality topics and training on pesticide application. The Producers Committee developed a list of BMPs recommended for use in the watershed, and composed a questionnaire to document adoption of BMPs over time. In addition, the committee met with pesticide dealers to increase dealers' awareness of the problem and to gain their assistance. The practice to incorporate herbicides into the soil upon application was already adopted by about 33% of area producers at the end of the first year, and reached nearly 100% by the third year of the project.

In the seven threatened lakes, targeted monthly monitoring was conducted near water supply intakes to verify the level of impairment and provide baseline data for future actions. Texas A&M University conducted the analysis. Water quality sampling conducted by the TCEQ was used to measure the effectiveness of the practices. In addition, Syngenta, a private corporation that markets Atrazine, continued its voluntary pesticide-monitoring program with the area's public water suppliers.

Partners in the program include the TSSWCB, the TCEQ, the TDA, the TPWD, the Texas Agricultural Experiment Station (TAES), the TCE, and the federal Natural Resources Conservation Service (NRCS). Several other agencies and interested parties were involved, including the EPA, the Brazos River Authority, the Sabine River Authority, the Aquilla Water Supply District, and Syngenta (formerly Novartis), a private corporation.

Monitoring was completed in August 2003, with the exception of Bardwell and Lake Waxahachie. The City of Waxahachie continues to sample these lakes to obtain the needed 36 monthly samples.

Technical and financial assistance was provided to corn and sorghum farmers to implement BMPs in the seven lakes watersheds through 12 TSSWCB §319 projects funded by EPA, over $4.1 million in cost share and TA was provided to farmers through SWCDs. Demonstrations, monitoring, and modeling were also conducted through TSSWCB 319 projects to support and evaluate the implementation of BMPs in the seven threatened lakes. Through the TSSWCB 319 program, almost $4.6 million has been obligated to address the Atrazine issues in the seven threatened lakes.

In 2000, the Little River was listed as threatened by Atrazine. In response to this listing, the TSSWCB initiated two 319 projects in 2002 to provide technical and financial assistance to the area to address this threat. These efforts were continued in 2003 with the provision of additional funding. Over $1.1 million in 319 funding has been provided to encourage BMP implementation.

ATRAZINE INITIATIVE RESULTS – A SUCCESS STORY

As a result of the Atrazine Initiative, Atrazine concentrations in Aquilla Reservoir have been reduced to safe levels. Between 1998 and 2003, Atrazine concentrations in Aquilla Reservoir have been reduced by approximately 60%, to amounts lower than those required for treated drinking water. There have also been no Atrazine concentrations higher than the allowable amount at the Aquilla Water Supply District's drinking water treatment plant. Monitoring will be continued on a quarterly schedule to ensure that Atrazine concentrations remain at a safe level. The BMPs implemented to help reduce the level of Atrazine are under contract for five years and as long as they are maintained, the level of detectable Atrazine should remain below standards.

Monitoring by TCEQ indicates that Atrazine concentrations in five of the seven lakes have been reduced to levels that warrant their reclassification from threatened. Those lakes are now attaining their uses as a source for treated drinking water.

The other two lakes, Bardwell and Waxahachie Reservoirs, are still being monitored. However, trends in those two reservoirs indicate that they, too, will no longer be classified by the TCEQ as threatened within the next six months.

COASTAL MANAGEMENT PROGRAM

BACKGROUND

The Texas Coastal Management Program (CMP) was created to coordinate state, local, and federal programs for the management of Texas coastal resources. The program brings in federal Coastal Zone Management Act (CZMA) funds to Texas state and local entities to implement projects and program activities for a wide variety of purposes. The Coastal Coordination Council (CCC) administers the CMP and is chaired by the Commissioner of the GLO. It comprises the chair or appointed representatives from the TPWD, the TCEQ, the TWDB, TxDOT, a member of the Texas State Soil and Water Conservation Board, a member of the RRC, the director of the Texas A&M University Sea Grant Program and four gubernatorial appointees. These members are selected to provide fair representation for all aspects concerning coastal issues.

The Council is charged with adopting uniform goals and policies to guide decision-making by all entities regulating or managing natural resource use within the Texas coastal area. The Council reviews significant actions taken or authorized by state agencies and subdivisions that may adversely affect coastal

natural resources to determine their consistency with the CMP goals and policies. In addition, the Council oversees the CMP Grants Program and the Small Business and Individual Permitting Assistance Program.

The Coastal Zone Act Reauthorization Amendments (CZARA), Section 6217, requires each state with an approved coastal zone management program to develop a federally approvable program to control coastal nonpoint source pollution. The Texas CCC appointed a Coastal Nonpoint Source Pollution Control Program workgroup to develop this document. The National Oceanic and Atmospheric Administration and the U.S. Environmental Protection Agency jointly administer the program. In Texas, two agencies hold primary responsibility for the program's development and implementation: the Texas Commission on Environmental Quality and the TSSWCB.

Section 6217 calls for implementation of management measures (§6217(g) measures or (g) measures) that will control significant nonpoint sources of pollution to coastal waters. Six source categories are addressed by these measures: agriculture, forestry, urban and developing areas, marinas, wetland/riparian areas, and hydro modification. States can use voluntary approaches combined with existing state authorities to achieve implementation of management measures. However, if the voluntary mechanisms are not effective, states must have backup enforcement authorities in place to ensure that management measures are implemented.

Texas submitted the Texas Coastal Nonpoint Source Pollution Control Program to EPA and NOAA in December 1998. In October 2000, Texas submitted the Texas Coastal NPS Control Program 15-year Program Strategy and FY 2001-2005 Implementation Plan.

Final findings were issued by NOAA/EPA in July 2003, which contained conditional approval of the program. The agricultural and silvicultural portions of the program were approved without conditions.

CURRENT STATUS

The TSSWCB is responsible for implementing the agricultural and silvicultural management measures of the program. The main mechanism we have for this is the State's cost-share program for implementing Water Quality Management Plans on farms and ranches through local soil and water conservation districts (SWCD). For over six years, more than $300,000 of state funds has been spent annually in the coastal zone districts to provide cost-share to implement over 1600 Water Quality Management Plans.

In addition to state funding, Texas receives §6217 funding from NOAA for implementing the Coastal Nonpoint Source Pollution Control Program. For the past several years, SWCDs in the Coastal Management Zone have received grants from NOAA's §6217 Implementation Funds to install agricultural management measures through the TSSWCB Water Quality Management Plan program. This has been very effective in expanding Texas' effort in carrying out the agricultural portion of its coastal nonpoint source program.

In March 2004, NOAA issued final guidance for the program funds. The guidance no longer allows these funds to be used to implement agricultural best management practices on private lands. As a result, federal funding is no longer available for SWCDs to implement agricultural management measures beginning in FY06. In addition, the FY05 NOAA budget cut the Coastal Nonpoint Source Pollution Control Program funding by 70%. The FY05 amount Texas received was only $112,000. The amount, if any, of FY06 funding for coastal nonpoint source pollution control programs.

In the meantime, our Water Quality Management Plan program in the coastal management zone continues.

Implementation of the silvicultural management measures in the coastal zone is through a CWA §319 grant from the TSSWCB to the Texas Forest Service.

INFORMATION TECHNOLOGY

New Agency Security Policies
Working with guidance from the Department of Information Resources, the agency information resources manager developed a comprehensive set of new security policies to help safeguard the agency's IT infrastructure and its program data. These policies were also designed to ensure agency compliance with state law. The new policies went into effect May 1, 2005.

Conservation Program Database Application
The network specialist continued work from January 2005 – June 2005 on the development of a web-based database application to be used to track information related to the agency's conservation programs. This project will provide significant improvements in the efficiency, security, and usefulness of the agency's program data. Several features have been added to the original design of this application and have delayed its original target deployment date, but the application should be available to agency staff about the middle of the 2006 fiscal year. This project has been developed on and will be implemented using an open source software stack, and will result in no cost to the agency for software purchases, licensing or third-party support.

Linux Desktop Evaluation
In April 2005 the network specialist began preparing for a limited trial of the open source Ubuntu Linux distribution at the agency's headquarters office. Faced with limited funds available to replace PCs that are at or past their expected life cycle, the agency is evaluating whether or not a freely available Linux desktop operating system can help maximize the use of available funds toward needed PC hardware. The open source software used in this project will not result in any cost due to software purchases or licensing.

PUBLIC INFORMATION /EDUCATION REPORT FY05

GENERAL OVERVIEW

The purpose of the public information/education program is to provide leadership and coordination of information/education programs relating to the agency and district programs, services, operations and resources. The TSSWCB prepares and disseminates public information relative to the agency and district functions, programs, events and accomplishments for the public and to farmers and ranchers. TSSWCB staff coordinates seminars, conferences, workshops, displays at trade shows and training for district directors and district bookkeepers, conservation professionals, youth groups and other entities. Staff provides guidance to districts with their own individual information/education programs as well as regional and state information/education programs initiated by districts. Staff prepares and disseminates press releases, news stories and printed promotional products. The TSSWCB monitors the use of the publications and use of information. Staff represents the agency as needed with various information/education groups and entities. The TSSWCB has a cooperative agreement with the Association of Texas Soil and Water Conservation Districts to provide assistance and help coordinate

district involvement and participation with Association's Information/Education Committee and its programs.

2005 Summer Teacher Workshops

Several teacher workshops are held each summer for teachers interested in conservation and natural resource issues. The workshops are held in various parts of the state in cooperation with the TSSWCB. The Texas Environmental Education Advisory Committee to the Texas Education Agency approves the content of these workshops, sponsored by the TSSWCB. As an approved Environmental Education Professional Development Provider teachers are able to get credit hours toward their required continuing education units (CEUs), while experiencing nature and the outdoors.

Pedernales SWCD hosted a Teachers Workshop in Johnson City, Texas at the Franklin Family Ranch on June 14-16, 2005. Topics included barren waste, water cycle, plants in the Texas hill country, wildlife biology, and prescribed burning.

2005 Texas Conservation Awards Program

Each year, the Texas State Soil and Water Conservation Board and the Association of Texas Soil and Water Conservation Districts co-sponsor the Texas Conservation Awards Program to recognize and honor those who dedicate themselves and their talents to the conservation and wise use of renewable natural resources. The 2005 Awards Program marked the 27th year of this joint program.

Local districts select their outstanding individuals as winners and submit them by mid-February each year for regional judging. Those selected as regional winners are honored each May at regional Awards Banquets. From these regional winners, a state winner is selected for the Outstanding Conservation Districts, Outstanding Conservation Teacher, Poster Contest, and the Essay Contest. These individuals are invited to the Annual State Meeting for recognition. The State winners for 2005 were:

- Outstanding Conservation District – Pedernales SWCD, Johnson City, Ralph M. Eberling, Chairman.
- Outstanding Conservation Teacher – Karen Abbey, Second Grade, Teague Elementary School, Teague, Freestone SWCD.
- Poster Contest – Lucas Miguel Hernandez, Austwell-Tivoli Elementary School, Tivoli, Capino Bay SWCD.
- Essay Contest (Ages 13 and under) – Marley Schaffer, Claude Middle School, Claude, Staked Plains SWCD.
- Essay Contest (Ages 14 to 18) – James Michael Reichert, Chapel Hill High School, Mt. Pleasant, Sulphur-Cypress SWCD.

The conservation awards program provides competition and incentives to expand and improve conservation efforts, resource development, and increase the wise utilization of renewable natural resources. As a result, soil and water conservation districts, and both rural and urban citizens of Texas are benefited.

Soil and water conservation districts may enter their local recognition honorees in any of 10 categories (East Texas has an additional category of Forestry Conservationist), depending on appropriateness to the category description. For the youth of the district, there is also a poster and essay contest. The categories and a brief description of each are:

Outstanding Conservation District

Awarded to the winning soil and water conservation district in each area for the most outstanding program during the past fiscal year.

Resident Conservation Rancher

Awarded to the outstanding resident conservation rancher in each area. They **must** be a resident of the district, perform ranching activities within the district and be a cooperator with the district from which the entry was submitted. The rancher may have other business or professional interests.

Resident Conservation Farmer

Awarded to the outstanding resident conservation farmer in each area. They **must** be a resident of the district, perform farming activities within the district and be a cooperator with the district from which the entry was submitted. The farmer may have other business or professional interests.

Absentee Conservation Farmer/Rancher

Awarded to the outstanding absentee conservation farmer or rancher in each area. They **must** reside **outside** the district, but operate farming or ranching activities within the district and be a cooperator with the district from which the entry was submitted. The person may have other business or professional interests.

Water Quality Management Plan

Awarded to the outstanding Water Quality Management Plan recipient in each area. They **must** be a district cooperator who has a district approved Water Quality Management Plan and has incorporated water quality into their farming or ranching activities and soil and water conservation work.

Essay Contest –Two Categories (Those 13 and under and those 14 to 18 years of age)

Essays (topic: "Celebrate Conservation") are to be submitted to local soil and water conservation districts for local judging. Each local district will judge the entries and submit three essays to the TSSWCB for competition on the area level. Plaques will be awarded to 1st, 2nd and 3rd place winners on the area level and state winners will be selected from the area winners. This contest is open to students, in two categories, one for those ages 13 and under, and the other category for those ages 14 to 18 years of age and does not jeopardize Texas University Interscholastic League eligibility.

Poster Contest

Posters should address one of the following subjects: "Food for the Future" or "The Living Soil". Posters shall be submitted to local soil and water conservation districts for local judging. Each local district will judge the entries and submit three posters to the TSSWCB for competition on the area level. Plaques will be awarded to the 1st, 2nd and 3rd place winners on the area level and state winners will be selected from the area winners. This contest is open to students, 12 years and under, and does not jeopardize Texas University Interscholastic League eligibility.

BUSINESS/PROFESSIONAL INDIVIDUAL

Awarded to the outstanding man or woman in the business community who has rendered the most unselfish conservation service in each area. Representatives of the news media (radio, television, newspaper, magazines, etc) who contribute to or provide support for conservation shall also be considered eligible for this award. (This award is not for individual conservation practices or individuals who, because of employment, assist with or augment the work of the soil and water conservation district.)

CONSERVATION TEACHER

Awarded to the outstanding teacher of conservation in schools in each area. Teachers of all grade levels are eligible for this award.

WILDLIFE CONSERVATIONIST

Awarded to the outstanding wildlife conservationist in each area. They **must** be a district cooperator who has incorporated wildlife conservation into their farming and ranching activities.

CONSERVATION HOMEMAKER

Awarded to the outstanding conservation homemaker in each area. The homemaker and or family **must** own or operate a farm or ranch, be a district cooperator and have knowledge of the conservation programs being implemented.

CONSERVATION DISTRICT EMPLOYEE

Awarded to the outstanding soil and water conservation district employee who exhibits a degree of knowledge, skill, ability, and leadership that clearly results in superior job performance far above the basic requirements of the position.

FORESTRY CONSERVATIONIST (AREA IV ONLY)

Awarded to the outstanding forestry conservationist for the most outstanding farm forestry conservation program in the commercial forest areas of Texas. They **must** be a district cooperator or an individual who has implemented conservation practices on their land and has done missionary work for conservation and the district program.

SOIL & WATER STEWARDSHIP PUBLIC SPEAKING CONTEST

The Soil & Water Stewardship Public Speaking Contest is open to high school FFA students interested in conservation. The contest is aimed at broadening students' interest and knowledge of conservation and how individuals must depend on and take care of the world around them for survival. The contest is coordinated through the Texas FFA, with contests at the local, area and state level. Local winners compete in the 10 state FFA areas and those winners compete for the state title. The theme for the 2006 contest will be “Water Wise.”

To prepare for the contest, students are to consult with their Agriculture Science teacher and work with their local soil and water conservation district. Students are encouraged to visit with their local SWCD to find out more about conservation practices in their area.

This project is a partnership between the Texas FFA, the Vocational Agriculture Teacher's Association of Texas, The Texas State Soil and Water Conservation Board, and the Association of Texas Soil and Water Conservation Districts. The 2005 regional winners were:

Britnee Brotherton, Floydada, Floyd County SWCD
Jordan Gregory, Lamesa, Dawson County SWCD
Meredith Timms, Katy, Harris County SWCD
Leeza Henderson, Quanah, Lower Pease River SWCD
Tara Smithwick, Krum, Denton County SWCD
Julia Nelson, Ore City, Upshur-Gregg SWCD
Joanna Hensley, Florence, Taylor SWCD
Wesley Dunlap, Riesel, McLennan SWCD
Julianna Bloodworth, Livingston, Polk-San Jacinto SWCD
Dustin Burke, Corpus Christi, Nueces SWCD

The State Winner of the Soil and Water Stewardship Public Speaking Contest is invited to attend the Annual State Meeting each year and asked to deliver their winning address. The 2005 State Winner was selected on July 12, 2005 at the State FFA Convention held in Lubbock. The 2005 State Winner is Britnee Brotherton, a Junior at Floydada High School, Floydada.

WILDLIFE ALLIANCE FOR YOUTH

The Wildlife Alliance for Youth (WAY) contests offer opportunities at the local district level for 4-H and FFA students to demonstrate their knowledge of the outdoors on wildlife habitat and management, wildlife laws, sportsmanship and other factual information on wildlife. The program offers scholarships to contest winners. It is a powerful tool for students to become involved in conservation and obtain an appreciation for wildlife.

Agriculture Science students, who compete in the WAY Contest, first acquire the foundational knowledge and skills for this event through the Agscience 381 - Wildlife and Recreation Curriculum. The WAY contests address the following nine subject areas in Wildlife and Recreation Management: Wildlife Plant Identification; Wildlife Plant Preferences; Wildlife Biological Facts; Wildlife Habitat; Habitat Management; Game Laws; Hunter and Boater Safety; Compass and Pacing; and Identification Techniques. Students should have an understanding of these subject areas before they compete.

The WAY contests are held in the five Texas State Soil and Water Conservation Board areas. Area IV (East Texas) holds their contest in the fall. Area V (North Central), Area I (Panhandle), Area II (West Texas) and Area III (South Texas) all hold their contests in the spring. Each team is certified to the area level by their local SWCD. The WAY State Contest is held each year in one of the geographical areas of the state. About 600 high school students participate in the statewide competition.

The TSSWCB is the lead agency in sponsoring and organizing the contests. The Association of Texas Soil and Water Conservation Districts, USDA- Natural Resources Conservation Service, Texas Parks and

Wildlife Commission, Cooperative Extension service, and the Texas Education Agency, along with local soil and water conservation districts (SWCD), all partner in the success of the youth organization.

STATE WOODLAND CLINIC AND CONTEST

The Texas State Woodland Clinic and Contest is held annually in the month of April. It is a joint effort between local soil and water conservation districts, Stephen F. Austin University School of Forestry and the NRCS-USDA.

The contest is an opportunity for 4-H and FFA youth to demonstrate their expertise in different aspects of forestry management and skills in identification of needed practices and management techniques. Competition is between teams composed of four members representing either a 4-H Club or a FFA Chapter. Prior to the state contest several local districts conduct contests for 4-H Clubs and FFA Chapters within their district and the surrounding area.

The contest began in the late 1950s and was initiated by local SWCDs and timber industry personnel to develop forestry and woodland curriculum in schools in the commercial timber area of the state (East Texas Piney Woods). The clinic and contest have experienced widespread popularity and now has participation from outside of the commercial timber area on a regular basis. The state participation level for teams averages around 55 teams per year, with the vast majority of teams being composed of FFA Chapters. Winners at the state level are eligible to participate in the four states regional woodland contest held each May in one of four states. Texas, Louisiana, Arkansas and Oklahoma host the regional contest on a rotational basis.

REGIONAL WOODLAND CONTEST

The four states regional woodland contest is sponsored by soil and water conservation districts in each of the four states with program and technical support provided by USDA-NRCS and Resource Conservation and Development (RC&D), state organizations and industry personnel. The soil and water conservation districts in Texas hosted the first four states or southern regional woodland contest in 1984.

An attempt was made to expand this clinic and contest to a national level. However, that effort was dropped due to the wide diversity of forestry species and management practices across the nation.

Each state is allowed to send a maximum of six teams to the regional contest. Each state has a competition that determines the six teams from that state that may enter in the regional contest. Those teams may be composed of individuals representing either a 4-H Club or an FFA Chapter.

The 2005 regional clinic was hosted by Oklahoma at Beaver Bend State Park.

CONSERVATION EDUCATION VIDEO LIBRARY

The Association of Texas Soil and Water Conservation Districts has established and updates a conservation related video library that is maintained by TSSWCB staff on their behalf for the benefit of local districts and educators. Currently there are 194 conservation-related videos in the library available to districts and teachers. No rental fees are assessed to those wishing to borrow the videos from the library. Borrowing privileges are for a length of two weeks and must be returned upon date specified by the librarian. Videos can be ordered through your local soil and water conservation district or by contacting

the TSSWCB. For the calendar year, there have been 150 videos of various titles loaned out to districts and teachers across the state.

CONSERVATION EDUCATION MODELS

The Nonpoint Source Pollution Watershed Flow Model and the Groundwater Flow Model allow students to understand how water supplies can become polluted from nonpoint sources through interactive demonstrations.

NONPOINT SOURCE (NPS) POLLUTION WATERSHED FLOW MODEL

The NPS model is a hands-on representation of a landscape that allows students to understand how water sources can become polluted from nonpoint sources. The plastic landscape structure has industrial, undeveloped, agricultural, and residential and roadway features complete with individual houses, trees, cars, tractors and cows. When "rain" falls on the model, the runoff flows into a city lake. Using various products to add color to the water, the model demonstrates how potential pollutants are picked up by run-off.

The model is a layout of a watershed that includes all the factors that may contribute to polluting our water. (Urban features such as: factories, parking lots, construction sites, lawn chemicals and golf courses and Rural features such as: forested land, dairies, feedlots, cropland and pastureland). To demonstrate how each type of potential pollutant can enter a water body Kool-Aid and cocoa are used to color "runoff". Grape Kool-Aid is used to represent pollution from factories and oil from parking lots and roads. Orange Kool-aid represents pollution from lawn chemicals, golf courses, and cropland and pastureland chemicals. Cocoa is used to represent pollution from construction sites, forested land, dairies and feedlots. The Kool-aid and Cocoa are sprinkled on the model in the areas that represent each type of pollutant. Once all the pollutants are sprinkled on the model a spray bottle with water is use to represent rainfall. As the pollutants get wet and start to runoff the students can see how the water carries them to the streams and into the lake where we get our drinking water. Once all the pollutants have run into the lake the students can see how these factors have the potential to make surface waters unattractive and unsafe. This demonstration leads to a discussion about how to protect the water quality and prevent our water from looking like the model.

GROUNDWATER FLOW MODEL

This model shows a cross-section of soil layers with a lake, a lagoon, and several wells represented. It uses a vacuum pump to make the water move through the soil layers and injection dyes to help visualize the flow of groundwater though soil and demonstrates how pollutants can travel in groundwater. The model demonstrates both percolation and the movement of groundwater due to pumping. Accompanied by an instructional video with tips on the setup, presentation and cleanup, the model is useful and easy to use.

Texas State Soil and Water Conservation Board (TSSWCB) Projects

	Title	Lead	Goals	Period	Federal Funds
00-1	**Administration of the FY2000 CWA Section 319(h) Agricultural/Silvicultural NPS Management Program**	TSSWCB	Administer/manage the FY00 CWA 319(h) cooperative agreement between EPA and TSSWCB. Coordinate with project cooperators on administrative related issues and manage the financial aspects of each contract.	Grant	$115,477
00-2	**Statewide NPS Pollution Management Project**	TSSWCB	Provide technical assistance for FY00 CWA 319(h) agricultural and silvicultural projects and ensure that projects meet all technical requirements and are successfully completed in a timely fashion.	Grant	$197,972
01-1	**Administration of the FY2001 CWA Section 319(h) Agricultural/Silvicultural NPS Management Program**	TSSWCB	Administer/manage the FY01 CWA 319(h) cooperative agreement between EPA and TSSWCB. Coordinate with project cooperators on administrative related issues and manage the financial aspects of each contract.	Grant	$228,574
01-2	**Statewide NPS Pollution Management Project**	TSSWCB	Provide technical assistance for FY01 CWA 319(h) agricultural and silvicultural projects and ensure that projects meet all technical requirements and are successfully completed in a timely fashion.	Grant	$208,890
01-4	**North Texas Atrazine Remediation**	Collin County SWCD 535	Provide corn and sorghum producers in the Lake Lavon, Lake Tawakoni, and Big Creek Lake watersheds with financial/technical assistance for WQMP implementation aimed at reducing Atrazine runoff, and provide water quality educational activities.	4/11/01 3/31/06	$404,200
01-13	**Technical and Financial Assistance in the Bosque River Watershed**	Cross Timbers SWCD 556	Provide technical/financial assistance to landowners toward development and implementation of WQMP for the purpose of reducing NPS nutrient losses from agriculture operations that land-apply animal waste. Monitoring of micro-watersheds will be performed in order to determine NPS reductions.	12/23/01 3/31/06	$1,800,607

Texas State Soil and Water Conservation Board (TSSWCB) Projects

	Title	Lead	Goals	Period	Federal Funds
02-1	**Administration of the FY2002 CWA Section 319(h) Agricultural/Silvicultural NPS Management Program**	TSSWCB	Administer/manage the FY02 CWA 319(h) cooperative agreement between EPA and TSSWCB. Coordinate with project cooperators on administrative related issues and manage the financial aspects of each contract.	Grant	$304,132
02-2	**Statewide NPS Pollution Management Project**	TSSWCB	Provide technical assistance for FY02 CWA 319(h) agricultural and silvicultural projects and ensure that projects meet all technical requirements and are successfully completed in a timely fashion.	Grant	$311,290
02-4	**Texas Silviculture**	Texas Forest Service	Project will reduce significant risks to water quality from silvicultural NPS pollution by implementing BMPs and increasing silvicultural NPS awareness. Statewide evaluation of silvicultural BMP adoption. Provide technical assistance. Continue a silvicultural WQMP & increase coordination among entities.	5/1/02 11/30/05	$503,293
02-5	**Little River Atrazine Remediation**	Central Texas SWCD 509	Project will provide corn & sorghum producers in the Little River watershed with an opportunity to participate in water quality educational activities, technical assistance, and financial assistance for implementation of BMPs, to reduce atrazine runoff.	4/9/02 3/31/06	$433,482
02-6	**Little River Atrazine Remediation**	Little River - San Gabriel SWCD 508	Project will provide corn & sorghum producers in the Little River watershed with an opportunity to participate in water quality educational activities, technical assistance, and financial assistance for implementation of BMPs, to reduce atrazine runoff.	4/29/02 3/31/06	$328,482
02-10	**DNA Sample Collection/Library**	TFB, TAES, TAMU AREC	Develop publicly available, comprehensively characterized genetic fingerprint and antibiotic resistance libraries of approx. 1,000 unique E.coli isolates from known animal, human & wastewater sources from Bosque and Leon River watersheds.	11/1/02 9/30/05	$780,836

Texas State Soil and Water Conservation Board (TSSWCB) Projects

	Title	Lead	Goals	Period	Federal Funds

02-11	**Phosphorus Index**	TCE	Determine the effects of selected soil properties on measured and predicted P runoff. Compare and correlate different soil test & soil solution extractable P levels to runoff P. Validate and/or modify the TX P Index as a predictive tool for classification of field sites relative to P loss potential.	9/27/02 3/31/06	$203,178
02-12	**Three - Technicians**	Southmost, Shelby, & Ellis-Prairie SWCDs 319, 349, 350, 401, 449, 504, & 514	Three technicians will work under the direction of SWCDs, with assistance when needed from the TSSWCB regional offices, and NRCS to assist landowners in the development, implementation, &/or maintenance of WQMPs/BMPs. Technicians will be placed in three SWCDs and will work in adjacent SWCDs through cooperative agreements between the participating SWCDs.	9/11/02 12/31/05	$519,589
02-13	**Oso Creek/Oso Bay Watershed Implementation Assistance**	Nueces SWCD 357	Technical assistance will be provided by Nueces SWCD and TSSWCB Harlingen Regional Office to landowners within Oso Creek/Oso Bay Watershed to develop and implement WQMPs within the watershed.	9/5/02 12/31/06	$544,302
02-14	**North Texas Atrazine Demonstration**	TCE	Demonstration and educational activities will be conducted to foster the implementation of BMPs within the Big Creek Lake Watershed to reduce atrazine in runoff.	9/11/02 3/31/06	$206,636
02-15	**Water Quality Information/Education**	TSSWCB Statewide	Development of newspaper articles, informational brochures/flyers, display exhibits and promotional materials that include both water quality and water conservation messages to increase public awareness.	3/31/02 3/31/07	$135,000

Texas State Soil and Water Conservation Board (TSSWCB) Projects

	Title	Lead	Goals	Period	Federal Funds
02-16	**Implementation Support Project**	Southmost	Project will provide additional funding for ongoing	9/11/02	$547,307

	in the Arroyo Colorado Watershed	SWCD 319	implementation efforts in Arroyo Colorado watershed. TSSWCB projects entitled "WQMP Implementation Assistance in Arroyo Colorado Watershed"(99-3) & "SWCD WQMP Development, Implementation &/or Maintenance Assistance" (02-12) will provide technical assistance for the project with coordination from the Harlingen Regional Office.	12/31/05	
02-18	**Athletic Field Topdressing as a Commercial Market for Compost from Dairy Manure (Field of Dreams Project)**	Leon-Bosque RC&D Council	Overall project goal: Gain commercial acceptance of blend of compost and sand for topdressing of athletic fields through demonstration on athletic fields.	7/1/04 6/30/06	$52,500
02-20	**Saltwater Revegetation**	Young SWCD	Demonstration project designed to show conservation practices and different seeding and mulching methods to establish best grass cover.	5/4/05 3/30/07	$15,060
03-1	**Administration of the FY2003 CWA Section 319(h) Agricultural/Silvicultural NPS Management Program**	TSSWCB	Administer/manage the FY03 CWA 319(h) cooperative agreement between EPA and TSSWCB. Coordinate with project cooperators on administrative related issues and manage the financial aspects of each contract.	Grant	$154,231
03-2	**Statewide NPS Pollution Management Project**	TSSWCB	Provide technical assistance for FY03 CWA 319(h) agricultural and silvicultural projects and ensure that projects meet all technical requirements and are successfully completed in a timely fashion.	Grant	$245,109
03-3	**The Aquatic Experience**	UCRA SWCD 219, 248, 251	"*The Aquatic Experience*" will be an education about NPS inputs and provide opportunities for area public schools to interact with the aquatic environment.	11/1/03 3/30/06	$19,200

Texas State Soil and Water Conservation Board (TSSWCB) Projects

	Title	Lead	Goals	Period	Federal Funds
03-4	**Texas Silviculture BMP Effectiveness Study**	TFS	Project will serve to quantify improvements in the quality of surface water in East Texas. Established	7/1/03 4/31/06	$367,620

			TSSWCB WQMP Program will continue as part of this project to increase coordination among all entities involved.		
03-5	**Sam Rayburn WQMP Implementation Supplemental**	Shelby SWCD 449	Provide financial assistance to landowners for development/implementation of WQMPs. Foster coordinated technical assistance activities in Sam Rayburn Reservoir and Toledo Bend Reservoir watersheds between TSSWCB, SWCD, NRCS, and other interested individuals. Compile info. on the location/types of BMPs for WQMPs implemented.	6/16/03 3/31/06	$350,000
03-6	**E.V. Spence Saltcedar**	TSSWCB SWCD 115, 207, 219, & 243	Provide technical and financial assistance toward implementation of targeted brush control activities for the purpose of reducing NPS loadings from saltcedar in the E.V. Spence Reservoir.	11/1/03 3/31/06	$2,208,446
03-7	**Bacteria Monitoring for Buck Creek**	TWRI SWCD 109	Monitor water quality as related to bacterial NPS pollution in Buck Creek by in-stream water sampling to facilitate TMDL definitions and guidance if needed.	11/1/03 3/31/06	$247,198
03-8	**Nitrate Impacts in Groundwater**	TCE	Project will design and implement a cover crop demonstration using three different winter cover crops and one bare soil.	11/1/03 3/31/06	$98,341
03-9	**Central Texas WQMP Implementation Supplemental**	Little River - San Gabriel, Central Texas SWCD 508 & 513	Project will provide additional funding for the ongoing implementation efforts in the Little River watershed. TSSWCB projects (02-5 & 02-6) entitled "Central Texas Atrazine Remediation Project".	11/1/03 3/31/06	$424,080
03-10	**Technologies for Animal Waste Pollution**	TWRI	Proposal provides for testing of new technologies designed for reducing water pollution associated with animal production systems, principally dairies. Focus is restricted to reducing P in dairy waste streams.	11/1/03 3/31/06	$227,793

Texas State Soil and Water Conservation Board (TSSWCB) Projects

	Title	Lead	Goals	Period	Federal Funds
03-11	**Leaf Beetle Demonstration**	ARS	Project will demonstrate the usefulness of biologically treating saltcedar in the Colorado River Basin in an effort to reduce NPS pollution loadings	11/1/03 3/31/06	$99,246

			resulting from saltcedar on agricultural lands.		
03-12	**Navarro WQMP Implementation Supplemental**	Navarro SWCD 514	Project will provide additional funding for the ongoing implementation efforts in the Richland-Chambers Reservoir watershed. TSSWCB F321 projects (00-5) entitled "North Central Texas Atrazine Remediation Project".	11/1/03 3/31/06	$430,279
03-14	**Edge of Field Monitoring**	BRA	Project will monitor and evaluate the P reduction capabilities of a state of the art methane digester installed on a dairy facility in the North Bosque River watershed operating in conjunction with a CNMP.	11/1/03 3/31/06	$96,081
03-15	**Reducing Atrazine Losses in Central TX**	TCE	Demonstrate effects of alternative tillage practices & atrazine application practices on protecting water quality by reducing atrazine losses; validate simulation model with measured atrazine losses.	11/1/03 3/31/06	$101,271
03-16	**Atrazine Modeling**	NRCS-WRAT	Purpose of project is to determine, using a watershed model (SWAT), effects of applying BMPs on atrazine loadings to streams, rivers, and lakes in 7 watersheds.	11/1/03 11/30/06	$158,400
03-18	**Bosque Watershed Coordinator**	BRA	Objectives include identifying and tracking progress of all pollution prevention projects and measures that are currently underway, tracking rules & regulations that affect operations of entities in the watershed, reviewing water quality data for trend I.D., providing opportunities for efficient/effective use of resources.	11/1/03 3/31/06	$190,815
04-1	**Administration of the FY2004 CWA Section 319(h) Agricultural/Silvicultural NPS Management Program**	TSSWCB	Administer/manage the FY04 CWA 319(h) cooperative agreement between EPA and TSSWCB. Coordinate with project cooperators on administrative related issues and manage the financial aspects of each contract.	Grant	$154,220

Texas State Soil and Water Conservation Board (TSSWCB) Projects

	Title	Lead	Goals	Period	Federal Funds
04-2	**Statewide NPS Pollution Management Project**	TSSWCB	Provide technical assistance for FY04 CWA 319(h) agricultural and silvicultural projects and ensure that projects meet all technical requirements and are successfully completed in a timely fashion.	Grant	$520,480

04-3	**Athletic Field Topdressing as a Commercial Market for Compost from Dairy Manure (Field of Dreams Project)**	Leon-Bosque RC&D Council	Overall project goal: Gain commercial acceptance of blend of compost and sand for topdressing of athletic fields through demonstration on athletic fields.	7/1/04 3/31/07	$300,000
04-4	**Field Validation of the Texas P Index in the Poultry Areas of Texas**	TCE	Effects of selected soil properties in Sam Rayburn Reservoir and Lake O' the Pines watersheds and other poultry producing areas of the state in East & South Central Texas to measure & predict P runoff and compare and correlate Mehlich III and soil solution soluble P extracts to runoff P.	8/1/04 8/31/07	$390,657
04-5	**Creekside Conservation Program Project**	LCRA	Protect Central Texas Highland Lakes by providing technical/financial assistance to landowners through the LCRA's Creekside Conservation Program. Assess NPS reductions resulting from Creekside Conservation Program.	2/1/04 8/31/07	$507,300
04-6	**Modeling Nutrient Loads from Poultry Operations in the Toledo Bend & Sam Rayburn Reservoir Watersheds**	NRCS-WRAT	Collect GIS, landuse, management, and measured data for selected watersheds. Where measured data is available, calibrate SWAT watershed model to measured flow, sediment and nutrients. Simulate nutrient load for current, pre and post conditions.	4/11/05 3/31/08	$96,000
04-7	**Technical Assistance and Implementation in West Fork of the Trinity River Watershed**	Jack SWCD 549	Provide technical assistance to landowners in developing and implementing WQMPs within the West Fork of Trinity River Watershed.	8/12/04 8/31/07	$100,000
04-8	**WQMP Implementation Assistance in Falcon Reservoir Drainage Area in Zapata Co.**	Zapata SWCD 335 TSSWCB Harligen R.O.	Coordinate technical assistance activities in the Falcon Reservoir Drainage Area in Zapata County between TSSWCB, SWCD, NRCS, & Kika De La Garza PMC. Inventory & map land uses & current mgmt. practices within the targeted watershed. Provide technical/financial assistance to landowners to aid in development/implementation of WQMPs.	8/17/04 8/31/07	$461,290

Texas State Soil and Water Conservation Board (TSSWCB) Projects

	Title	Lead	Goals	Period	Federal Funds
04-9	**Seymour Aquifer Water Quality Improvement**	TWRI (Haskell, Wichita Brazos & California Creek SWCDs)	The main goal of this project is reduce the nitrate levels in the Seymour Aquifer. Project will provide irrigators in Haskell, Knox, and Jones counties with opportunity to participate in water quality educational activities, technical assistance, financial assistance for implementation of BMPs, in order to	8/19/04 8/31/07	$764,054

			improve water quality in Seymour Aquifer.		
04-10	**Phytoremediation of excessively high phosphorus soils and subsequent reduced P runoff into North Bosque River**	TAES	General objective of this project is to reduce surface surface water contamination in the north Bosque River from soil-applied P of dairy manure origin.	8/30/04 8/31/07	$238,859
04-11	**Watershed Protection Plan Development for the Pecos River**	TWRI	Assess the Pecos River Basin and increase landowner and stakeholder involvement through educational efforts. Watershed Protection Plan based on the river basin assessment.	8/25/04 8/31/07	$709,380
04-12	**Little Wichita River Watershed Protection Plan**	TIAER at TSU	Project will provide assessment of existing and potential water quality problems associated with NPS pollution in the Little Wichita River Basin & provide watershed plan to improve and protect water quality within the basin.	8/1/04 2/28/07	$90,090
04-13	**Development of a Watershed Protection Plan for the Concho River Basin**	Upper Colorado River Authority (UCRA)	Project will provide assessment of existing and potential water quality threats related to on-going NPS water pollution within the Concho River basin and will also provide a Watershed Protection Plan.	9/1/04 8/31/07	$375,240
04-14	**Assessment and Mitigation of Agricultural and Other NPS Activities in the Cypress Creek Basin.**	NETMWD	Northeast Texas Municipal Water District Assessment Project and On-Site Sewage System Replacement Program. Primary goal of project is evaluate effectiveness of selected BMPs in reducing nutrient inputs to Big Cypress Creek and Lake O' Pines by documenting runoff quality from sites representing dominant soil & land use types, with/out BMPs. Implemented/replace failing septic systems.	8/1/04 3/31/07	$442,805

Texas State Soil and Water Conservation Board (TSSWCB) Projects

	Title	Lead	Goals	Period	Federal Funds
04-15	**Mathematical Model for Dispersal of Leaf Beetle, Diorhabda Elongata from Old World released in U.S. for Biological Control of Invasive Saltcedar**	ARS-USDA	Goal of project is aid in Implementation Plan for Sulfate and Total Dissolved Solids (TMDLs) in the J.B. Thomas, E.V. Spence and O.H. Ivey Reservoirs by biological control of saltcedar in riparian areas along the Colorado River of Texas and its tributaries.	10/27/04 8/31/07	$136,724
04-16	**Nueces Basin Headwaters**	Nueces River	Using public education, project will concentrate on	9/1/04	$170,703

	Stewardship Project	Authority	water quality concerns, impairments, and threats to water quality and streambed conditions in five headwater stream segments of the Nueces River Basin.	8/31/07	
04-17	**TSTAR**	TCE	The purpose of this project is to develop and test in a pilot watershed the educational component of the T-STAR Program which provides agricultural producers and allied industry with a combination of production and environmental training.	2/24/05 8/31/07	$440,503
04-18	**BMP Verification in Richland-Chambers**	TAES	Verify effectiveness of nutrient load reduction BMPs in the Richland-Chambers watershed.	8/1/05 7/31/05	$237,722
05-1	**Administration of the FY2004 CWA Section 319(h) Agricultural/Silvicultural NPS Management Program**	TSSWCB	Administer/manage the FY05 CWA 319(h) cooperative agreement between EPA and TSSWCB. Coordinate with project cooperators on administrative related issues and manage the financial aspects of each contract.	Grant	$104,480
05-2	**Statewide NPS Pollution Management Project**	TSSWCB	Provide technical assistance for FY05 CWA 319(h) agricultural and silvicultural projects and ensure that projects meet all technical requirements and are successfully completed in a timely fashion.	Grant	$310,426
05-3	**Ellis Prairie SWCD Project**	Ellis Prairie SWCD	Provide technical/financial assistance to qualifying producers on appropriate BMPs to reduce sediment, nutrient, and pesticide runoff and provide water quality educational events.	9/1/05 9/1/08	$433,700

Texas State Soil and Water Conservation Board (TSSWCB) Projects

	Title	Lead	Goals	Period	Federal Funds
05-4	**Silvicultural NPS Abatement**	TFS	This project will reduce significant risks to water quality from silvicultural NPS pollution by implementing BMPs and increasing silvicultural NPS awareness by completing a statewide evaluation of silvicultural BMP implementation, providing technical assistance, education, coordination, and monitoring the effectiveness of forestry BMPs	9/1/05 9/1/08	$574,521
05-5	**Watershed Education**	TWRI TCE	The purpose of this project will be to develop and deliver an educational curriculum which functions to	9/1/05 9/1/08	$358,041

			support the TSSWCB's effort to prepare a Watershed Protection Plan in the target watershed.		
05-6	**PLAN**	TCE	To educate 3rd party applicators of poultry litter to the environmental benefits of using proper application management techniques on new sites.	9/1/05 9/1/08	$210,002
05-7	**Impact of Proper Fert. Mgmt**	TCE	Implement fertilizer management practices on cultivated and pasture fields to demonstrate the importance of using proper management relating to application method, timing, and rate, and conduct demonstration/educational activities on the importance of proper organic fertilizer management.	9/1/05 9/1/08	$186,352
05-8	**Peach Creek Project**	Gonzales SWCD	Developing, implementing and maintaining WQMPs and provide technical assistance to agricultural producers in the Peach Creek watershed.	9/1/05 9/1/08	$465,123
05-9	**Lake Granger Project**	BRA	The Brazos River Authority will facilitate the development of a Watershed Protection Plan for the Lake Granger Watershed. This project will also provide the Little River-San Gabriel and Taylor SWCDs with funding for technical/ financial assistance to implement BMPs through conservation planning.	9/1/05 9/1/08	$814,168
05-10	**Arroyo Eduation Project**	TWRI	Educate agricultural producers on how to better produce and manage their acreage and support and promote associated programs implementing BMPs related to water quality protection.	9/1/05 9/1/08	$103,959

Texas State Soil and Water Conservation Board (TSSWCB) Projects

	Title	Lead	Goals	Period	Federal Funds
05-12	**Arroyo WQMP Project**	Hidalgo SWCD	Provide technical assistance to landowners to aid in the development and implementation of a minimum of 78 WQMPs in the Arroyo Colorado Watershed.	9/1/05 9/1/08	$970,478
05-13	**Composting Support - DMES**	TSSWCB	Project will coordinate compost activities in Bosque and Leon watershed among all entities involved. Provide financial/technical assistance to offset costs of transporting raw manure to compost facilities. Continuation of 00-8 & 02-8.	10/1/05 9/30/06	$228,000

FISCAL YEAR 2006
EXPECTED EXPENDITURE SUMMARY

	SWCD ASSISTANCE	BRUSH PROGRAM	319 GRANT PROGRAM	503/POULTRY PROGRAM	INDIRECT ADMIN.	TOTAL
Salary and Wages	$ 650,000.00	$ 140,000.00	$ 300,000.00	$ 1,231,520.00	$ 315,000.00	$ 2,636,520.00
Other Personnel	$ 22,242.00	$ 3,000.00	$ 10,000.00	$ 35,000.00	$ 15,000.00	$ 85,242.00
Professional Fees	$ -	$ -	$ -	$ -	$ 16,000.00	$ 16,000.00
Fuel and Lubricants	$ -	$ 5,000.00	$ -	$ 25,000.00	$ -	$ 30,000.00
Consumables	$ 5,000.00	$ 2,500.00	$ 12,000.00	$ 10,000.00	$ 1,250.00	$ 30,750.00
Utilities	$ 30,000.00	$ 6,000.00	$ 10,000.00	$ 50,000.00	$ 2,500.00	$ 98,500.00
Travel	$ 150,000.00	$ 12,500.00	$ 25,000.00	$ 70,000.00	$ 50,000.00	$ 307,500.00
Rent - Building	$ 20,000.00	$ 12,000.00	$ 10,000.00	$ 90,000.00	$ 2,500.00	$ 134,500.00
Rent - Machine	$ 5,000.00	$ 500.00	$ 6,000.00	$ 25,000.00	$ 2,000.00	$ 38,500.00
Other Operating	$ 56,301.00	$ 65,847.00	$ 31,900.00	$ 226,019.00	$ 6,075.00	$ 386,142.00
Client Services	$ -	$ -	$ 1,020,800.00	$ 2,221,740.00	$ -	$ 3,242,540.00
Grants	$ 2,277,605.00	$ 1,629,376.00	$ 2,550,000.00	$ -	$ -	$ 6,456,981.00
Captial Expenses	$ 2,200.00	$ 2,700.00	$ 3,100.00	$ 28,900.00	$ 11,300.00	$ 48,200.00
Lapse	$ -	$ -	$ -	$ -	$ -	$ -
Total	$ 3,218,348.00	$ 1,879,423.00	$ 3,978,800.00	$ 4,013,179.00	$ 421,625.00	$ 13,511,375.00

TEXAS STATE SOIL & WATER CONSERVATION BOARD

SEMI - ANNUAL REPORT

TO THE

GOVERNOR,
LIEUTENANT GOVERNOR,
AND
SPEAKER OF THE HOUSE

JULY 1, 2006

FORWARD

In response to S.B. 1828 passed by the 78th Texas Legislature in Regular Session, 2003, the Texas State Soil and Water Conservation Board presents this review of its programs and activities. S.B. 1828 added §201.028 to the Texas Agriculture Code to provide that the TSSWCB shall prepare and deliver to the Governor, the Lieutenant Governor, and the Speaker of the House of Representatives a report, not later than January 1 and July 1 of each year, relating to the status of the budget areas of responsibility assigned to the State Board including outreach programs, grants made and received, federal funding applied for and received, special projects, and oversight of soil and water conservation district activities.

The FY06 Expected Expenditure Summary is attached to this report. Information on grants made to local districts and other entities is incorporated within the program section it involves. Federal grants received for the Clean Water Act are provided in that section.

Attached, as an addendum of this report, is the Brush Control Program 2005 Annual Report. Section 203.056, Texas Agriculture Code, requires the State Board, before January 31 of each year, to submit a report of the activities of the Brush Control Program during the immediately preceding year.

The Texas State Soil & Water Conservation Board takes pride in the accomplishments and remarkable progress that have been made in soil and water conservation in this state. Often environmental successes are slow to be realized. We have realized and already reported one success story that involves reducing the level of Atrazine in several water bodies, particularly the Aquilla Reservoir in the Hill County-Blackland SWCD.

However, we recognize there remains a continuing challenge and an ongoing need to ensure our land has the capability to produce food and fiber for future Texans. Because of changes in land use, ownership, technology, and population growth, the need for soil and water conservation programs will remain critical. Texas has a finite number of acres to provide for the needs and desires of citizens and visitors, and this places an ever-increasing demand on agricultural land. Farmers and ranchers face complex decisions concerning the best ways to manage and utilize the land available to them.

We believe that soil and water conservation programs must remain dynamic as land uses change and technology improves to make some conservation practices more capable of meeting demands on soil and water resources. We also maintain the belief that the purpose of the soil and water conservation program is to promote the wise use of our renewable natural resources and provide for the conservation and enhancement of the soil and water resources of this state through and by the dynamic decisions of local soil and water conservation districts which promotes the use of each acre of land within its capabilities and treating it according to its needs.

From the beginning, the Texas State Soil and Water Conservation Board and local soil and water conservation districts have formed an organizational framework through which various complex governmental conservation programs are delivered to local landowners and operators. This relationship has successfully been utilized to disseminate sound management techniques and practices to maintain individual productive land uses to provide for the needs of present and future generations.

To the landowners of Texas, the individual soil and water conservation district directors, and the many agencies and organizations assisting and working with our programs, we offer our sincere thanks.

Table of Contents

	Page
Historical Background	5
Organization	7
Staff	7
Soil and Water Conservation Districts	9
Annual State Meeting Of Soil and Water Conservation District Directors	11
Director Mileage and Per Diem	11
District Technical Assistance Funds	11
Agricultural Water Conservation Grant	11
District Conservation Assistance Program	12
Programs and Activities of the TSSWCB	12
Clean Water Act, §319(h) Grant Program	12
Total Maximum Daily Load (TMDL) Program	14
Watershed Protection Plan Program	15
Water Quality Management Plan (WQMP) Program	16
Poultry Water Quality Management Plan (WQMP) Initiative	18
North Bosque River Watershed Initiative	21
Dairy Manure Export Support (DMES) Program	22
Comprehensive Nutrient Management Plan (CNMP) Program	23
Texas Atrazine Initiative	23
Background	23
Development of the Texas Approach	24
Implementation of the Atrazine Initiative	25
Atrazine Initiative Results – A Success Story	26
Coastal Management Program	27
Background	27
Current Status	27
Information Technology	28
Public Information /Education Report	29
General Overview	29
2006 Summer Teacher Workshops	30
2006 Texas Conservation Awards Program	30
Soil & Water Stewardship Public Speaking Contest	32
Wildlife Alliance For Youth	33
State Woodland Clinic and Contest	33
Regional Woodland Clinic	34
Conservation Education Video Library	34
Conservation Education Models	34
Nonpoint Source (NPS) Pollution Watershed Flow Model	34
Groundwater Flow Model	35

TSSWCB FY06 Expenditures As Of May 30, 2006	Atch 1
Ongoing Clean Water Act, §319(h) Grant Program Projects	Atch 2
Brush Control Program 2006 Status Report	Atch 3

HISTORICAL BACKGROUND

In the early history of the United States, those involved in agriculture often did not consider the conservation of soil and water resources. Land was cleared and put into farm production. When the land quit producing at a profitable level, the farmers merely moved on to new land farther west and started the process over again. There was no need to be concerned with soil conservation, as there was a seemingly unlimited supply of virgin land waiting to be tilled. This process continued through the 1800s and into the early 1900s. With the outbreak of World War I, farmers in the Great Plains states were encouraged to break out native grassland to grow wheat and other foodstuffs to feed the nation and the world. As a result of these and other unwise management practices and the fact that the farmlands were experiencing long periods of drought, the 1930s produced some of the worst dust storms the nation had ever seen. Clouds of dust rolled across the plains states sending dust storms through the south and into the nation's capital. At the same time, the nation was in the midst of a great economic depression. The federal government, seeking ways to put people back to work and encourage conservation, created the Civilian Conservation Corps and Soil Erosion Service. Through these mechanisms, demonstration projects were initiated to train technicians and to educate the public in ways to conserve soil resources. These programs were successful in putting people back to work, but lacked the local ties to establish lasting conservation programs.

One of the early day leaders in the national effort to control soil erosion was Hugh Hammond Bennett from North Carolina. After graduation from the University of North Carolina in 1903, Hugh Bennett took a job with the Bureau of Soils in the United States Department of Agriculture. Because of his experience, scientific knowledge and leadership ability, he was put in charge of the Soil Erosion Service when it was created in 1933. In 1935, P.L. (Public Law) 46 was passed creating the Soil Conservation Service within the U.S. Department of Agriculture and Hugh Bennett became the first Chief of the agency. He soon became internationally known for his accomplishments in conservation work.

With the help of Congressman Buchannan from Columbus, Texas, Hugh Bennett was able to persuade President Franklin Roosevelt that the soil resources of this nation were being wasted. He convinced the President that a Model Soil Conservation Act should be developed and sent to the governors of each state for passage by their state legislatures. The purpose of this Model Act would be to develop programs at the state and local level to control soil erosion.

In 1936, such a Model Act was sent to the governors with the endorsement of President Roosevelt. The Model Act, developed in Washington, was patterned after the Texas Wind Erosion Act, the Grass Conservation Acts in the Northern High Plains and certain water conservation district law.

In 1937 legislation was introduced in the Texas Legislature based on this Model Act. It is reported that as many as 25 different versions of this soil conservation law were considered before a final version was passed. There was much heated discussion of the proposed legislation. When the final version was adopted, the bill contained many undesirable features. The law would have set up Soil Conservation Districts automatically on a county basis and made County Commissioners Courts the governing body. A portion of the county tax was to be used to finance the program and county agricultural agents were to be the administrative officers.

A number of agricultural leaders from across the state had, by this time, become concerned about the newly passed legislation. It was their opinion that, if the responsibility for installing and maintaining conservation measures lay in the hands of the land owners, the control of such a program should also be

in their hands. As a result of these and other concerns, a group of landowners led by V.C. Marshall of Heidenheimer, Texas, convinced the Governor to veto the 1937 legislation.

Hard feelings among agricultural leaders resulted from the attempt to pass this soil conservation law. Under the leadership of Mr. Marshall, a concerted effort was made during the interim between legislative sessions to heal the old wounds and to put together a version of a law that would be generally accepted by the farmers and ranchers of Texas. Mr. Marshall organized a committee of leaders from across the state to promote the passage of a new Soil Conservation Law. He traveled many miles at his own expense seeking the views of agricultural leaders and promoting the idea of the Soil Conservation District Program.

The key points Mr. Marshall felt should be included in the new law were that (1) farmers and ranchers should determine whether or not a Soil Conservation District was needed and hold a local option election prior to the establishment of the district; (2) the program should be controlled by landowners; and (3) the Soil Conservation Districts should have no taxing authority or the power of eminent domain.

In 1939 the Texas Legislature passed H.B. (House Bill) 20 which incorporated those features and was the first Soil Conservation Law for the state. The law created the State Soil Conservation Board and allowed for the creation of the Soil Conservation Districts. Mr. Marshall was elected as the first Chairman of the Soil Conservation Board and later resigned to become the first Executive Director of the agency.

On April 30, 1940, the Secretary of the State issued Certificates of Organization for the first 16 Soil Conservation Districts paving the way for the program we now operate. Today, Texas has 217 local soil and water conservation districts that encompass more than 99% of the state.

As previously mentioned, the Model Act endorsed by President Roosevelt was in part patterned after the Texas Wind Erosion Act. Texas was already making attempts to address soil conservation as a result of the "Dust Bowl" days of the 1930s. The 44th Legislature in 1935 passed legislation authorizing the establishment of Wind Erosion Conservation Districts. This law provided for the creation of districts to "conserve the soil by prevention of unnecessary erosion caused by winds, and the reclamation of lands that have been depreciated or denuded of soil by reasons of winds." Although a number of Wind Erosion Control Districts were created, the passage of the Soil Conservation District Law in 1939 resulted in those districts becoming dormant.

In 1975, Governor Dolph Briscoe, by Executive Order, designated the TSSWCB as lead agency to assume the planning and management responsibility for control of agricultural and silvicultural nonpoint source pollution as required by the Federal Water Pollution Control Act.

In 1981 the 67th Legislature passed H.B. 1436, which for the first time codified the agricultural laws of Texas. Title 7, Chapter 201 of this code contains the portion pertaining to Soil and Water Conservation.

In 1985 the 69th Legislature passed S.B. 1083 creating a Brush Control Program in Texas and granting new powers and responsibilities, without funding, to the TSSWCB and Soil and Water Conservation Districts under Chapter 203 of the Agriculture Code. In 1999, the TSSWCB received its first appropriation in the FY00-01 biennium to control water-depleting brush and trees, such as cedar and mesquite. The program received $9.1 million to establish a pilot project in the North Concho Watershed.

In 1993, the 73rd Legislature passed S.B. 503 which named the TSSWCB the lead agency to address water quality issues relating to runoff from diffused, or nonpoint sources resulting from agricultural and forestry operations. In 1999, the Legislature expanded the TSSWCB's environmental mission and appropriated money to address water pollution from nonpoint sources under a separate, federally mandated program.

The leaders who framed the Texas Soil and Water Conservation Law in 1939 recognized that landowners and operators of private land constitute the basic resource for the conservation of our renewable natural resources. Without the support and willing participation of private landowners and operators in the development and implementation of soil and water conservation programs there is little hope of success. Local soil and water conservation districts led by farmers and ranchers who know the land and the local conditions and problems have the means to develop conservation plans that address each acre of land specific to its needs to solve or reduce the severity of its problems.

ORGANIZATION

Since inception, the TSSWCB has been governed by five board members, elected by delegates from each of five regions of the state's 217 local soil and water conservation districts. Elections occur annually at regional conventions of the local soil and water conservation districts, with members serving two-year staggered terms. However, with the enactment of S.B. 1828 by the 78th Legislature, two Governor appointees join the five elected board members to create a seven-member board. The two Governor appointed positions are listed below. The term of one member appointed by the Governor expires February 1 of each odd-numbered year, and the term of the other member appointed by the Governor expires on February 1 of each even-numbered year.

Elected State Board members must be 18 years of age or older; hold title to farmland or ranchland; and be actively engaged in farming or ranching. The Governor appointees must be actively engaged in the business of farming, animal husbandry, or other business related to agriculture and wholly or partly owns or leases land used in connection with that business; and may not be a member of the board of directors of a conservation district.

The State Board elects its own Chair and generally meets every odd month, unless specific programs or issues require more immediate action. The following list shows the current Board members and shows which State Board Region they represent.

Texas State Soil and Water Conservation Board

Member Name	Region	Term	Residence
Aubrey L. Russell	#1	May 3, 2005 – May 1, 2007	Panhandle
Reed Stewart	#2	May 2, 2006 – May 6, 2008	Sterling City
José O. Dodier, Jr.	#3	May 3, 2005 – May 1, 2007	Zapata
Jerry D. Nichols	#4	May 2, 2006 – May 6, 2008	Nacogdoches
W.T. "Dub" Crumley	#5	May 3, 2005 – May 1, 2007	Stephenville
Larry D. Jacobs	Appointed	June 20, 2005-February 1, 2006	Montgomery
Joe L. Ward	Appointed	June 20, 2005-February 1, 2007	Telephone

STAFF

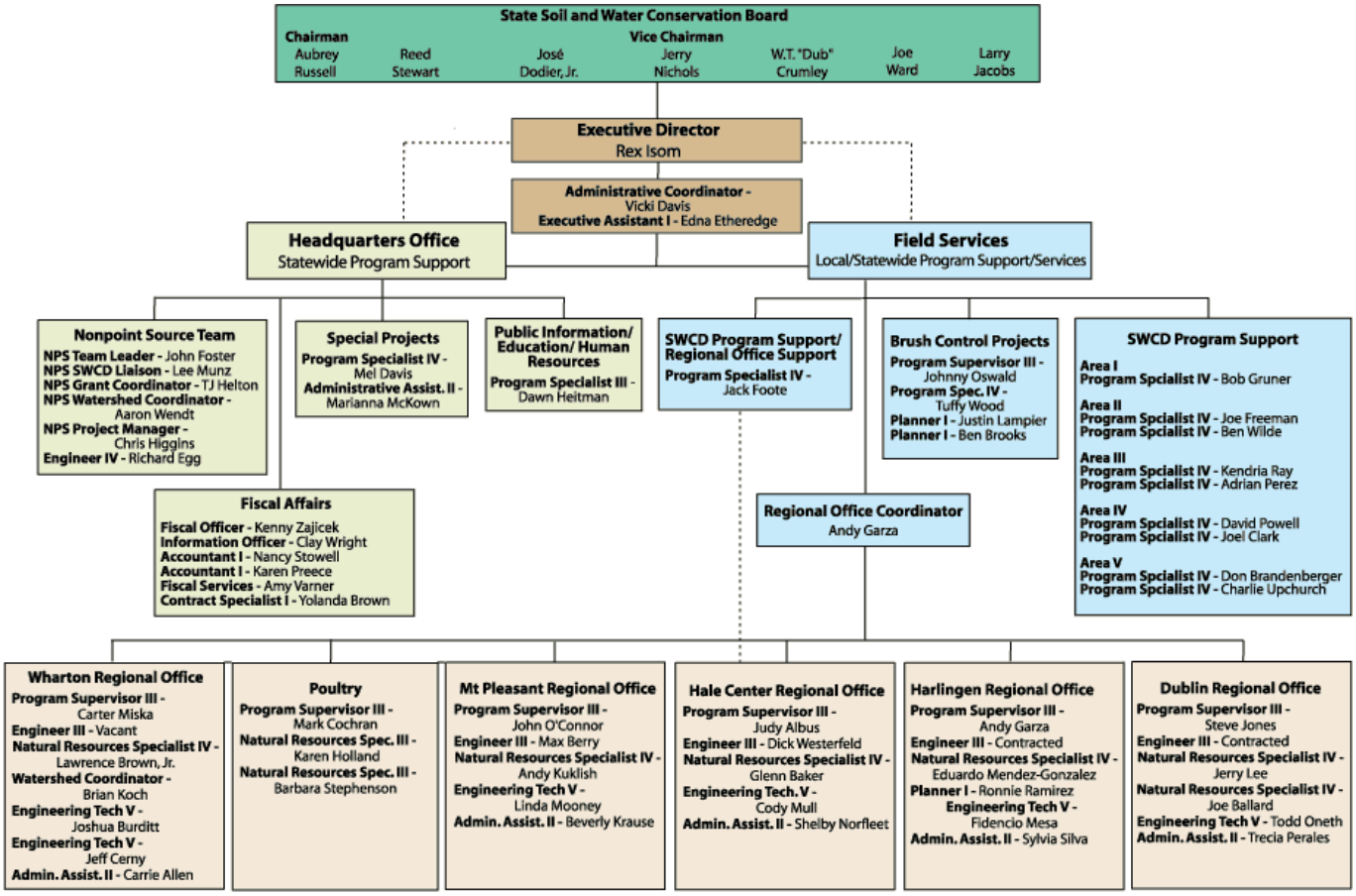
Mr. Rex Isom was named as the Executive Director in January 2004 and continues to carry out the directives of the State Board and directing staff efforts.

We emphasize our agency philosophy as stated in our Strategic Plan, "The State Soil and Water Conservation Board will act in accordance with the highest standards of ethics, accountability, efficiency, and openness. We affirm that the conservation of our natural resources is both a public and a private benefit, and we approach our activities with a deep sense of purpose and responsibility." Mr. Isom, as Executive Director, is leading the agency in that direction and expects all employees to follow that lead.

As of June 1, 2006 the TSSWCB employed 63 staff, 19 of which work in the Temple headquarters. The remaining employees are field staff, either working out of their homes or located in seven satellite offices; five regional offices and two program specific offices, located throughout the state. Due to difficulty in recruiting engineers, two field engineer positions remain contracted. The following organization chart shows the agency's current structure.

The current structure of the TSSWCB now reflects efforts to place more personnel in the field and away from headquarters for a 70% to 30% ratio of Field personnel to Headquarters personnel.

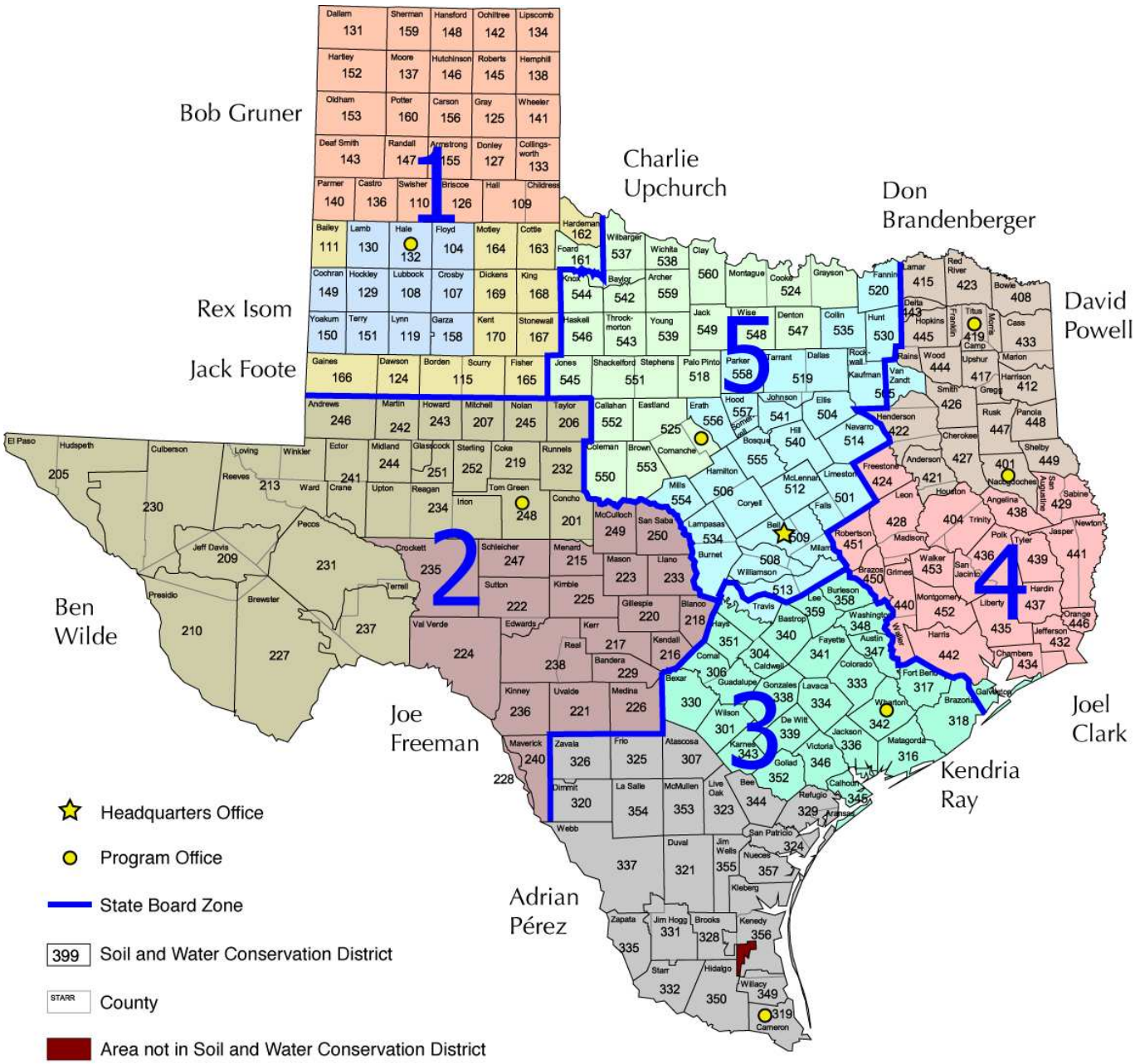
The regional office staff along with the program specific staff provides on-site technical assistance to farmers and ranchers. The field staff serves as a liaison between the TSSWCB and local districts. The field staff also provides assistance to local districts and district employees concerning operations, programs, and activities. The regional office staff and the program specific staff coordinates with the Texas Commission on Environmental Quality (TCEQ), Texas Cooperative Extension (TCE), and the USDA's Natural Resource Conservation Service (NRCS) to provide technical assistance to landowners to implement Water Quality Management Plans (WQMPs).



SOIL AND WATER CONSERVATION DISTRICTS

The TSSWCB performs many of its activities in coordination with the state's 217 local soil and water conservation districts. These local districts are political subdivisions of the state, established through local option elections of agricultural landowners. Districts generally reflect county boundaries, but may also follow river basin or watershed boundaries, depending on the desires of the local landowners.

The following soil and water conservation district map shows the current 217 local districts that cover almost the entire state. That portion of the state not in a soil and water conservation district is in Kenedy County and contains the privately owned King Ranch. The map also shows the grouping of the districts into the five State Board Districts that respectively elect a State Board member and shows the field staff that is assigned to work with each district within a specific area.



Landowners within these local districts elect the five district directors that comprise the districts governing body or board of directors. This board of directors administers the programs and activities of the district. Representatives of the districts within each region then elect the members of the State Board through a series of convention style-elections.

Districts do not have taxing authority and rely on locally generated funds from various activities and programs, federal assistance, county assistance, and state assistance from the TSSWCB. The USDA Natural Resource Conservation Service (NRCS) provides most of the federal assistance available to districts and through cooperative agreements provides technical assistance to farmers and ranchers requesting assistance from the district.

ANNUAL STATE MEETING OF SOIL AND WATER CONSERVATION DISTRICT DIRECTORS

The Annual State Meeting of Soil and Water Conservation District Directors, required in §201.081, Texas Agriculture Code, convened in Corpus Christi last October. There were 141 districts represented, with 365 individual district directors that registered for the meeting. The total registration was 876.

For the 2006 calendar year, the state meeting is scheduled for October 23-25 in Arlington.

DIRECTOR MILEAGE AND PER DIEM

Due to the reductions in staff at the headquarters office, director mileage and per diem claims are now managed directly by districts. The TSSWCB sent each district 75% of their approved allocation (grant). The remaining 25% will be used as a pool for any expenses not covered through the initial allocation (grant). Field staff will approve each claim before payment to ensure claims are accurate and comply with state statutes and guidelines. The FY06 state appropriation for this program is $325,000.00.

DISTRICT TECHNICAL ASSISTANCE FUNDS

The TSSWCB 2006-2007 Appropriation revised the allocation method for technical assistance funds. On September 1, 2005, the TSSWCB began disbursing technical assistance payments on a reimbursing basis only. The FY06 state appropriation for this program is $1,036,241.00.

AGRICULTURAL WATER CONSERVATION GRANT

Sub-chapter H funds were appropriated to the TSSWCB from the Agricultural Soil and Water Conservation Account No. 563. Senate Bill 1053 enacted by the 78th Legislature moved the bond that funded Account No. 563 to the Texas Water Development Board (TWDB). Account No. 563 no longer exists and future funding for what was Sub-chapter H grants will come from the TWDB in the form of competitive Agricultural Water Conservation Grants. The TWDB adopted rules and developed a grant application process for distributing the funds from the fund. The TSSWCB, on behalf of districts, applied to the TWDB for grant funding to continue the water conservation program previously supported by the sub-chapter H program. Soil and water conservation districts (SWCDs) provide technical and planning assistance to agricultural producers for implementing conservation best management practices (BMPs) on their farms and ranches.

The Texas State Soil and Water Conservation Board (TSSWCB) received an Agricultural Water Conservation Grant of $115,000 from the TWDB for FY2004. The funds from the grant were allocated to eligible SWCDs to support technical assistance in planning agricultural water conserving BMPs on farms and ranches.

Eligible BMPs were those that directly or indirectly produced water savings and those that reduced erosion, a cause of increased sedimentation of Texas' surface water reservoirs.

The grant award of $115,000 supplemented approximately $950,000 in technical assistance funding allocated to local SWCDs for support of planning and implementing agricultural water conserving Best Management Practices (BMPs) on farms and ranches.

A total of 197 SWCDs statewide were eligible and willing to participate in this program. The assistance performed by these SWCDs has resulted in an estimated 341,729 ac-ft potential water savings for the State or approximately 2.97 ac-ft of water conserved for each state dollar spent.

The TSSWCB received a second grant of $100,000 in FY2005 under the program. Analysis of the water savings results are not yet complete, but 198 SWCDs participated in the program the second year.

DISTRICT CONSERVATION ASSISTANCE PROGRAM

District Conservation Assistance funds are appropriated to the TSSWCB from general revenue funds. Of the 217 local soil and water conservation districts, 216 districts request to receive an allocation (grant) from these funds. Local districts receive these funds as a dollar for dollar match for money that they generate locally through various activities. The local districts use this money to pay operational expenses. The FY06 state appropriation for this program is $916,364.00.

PROGRAMS & ACTIVITIES OF THE TSSWCB

The services and programs provided by the TSSWCB target rural Texas farmers and ranchers, but the results of these services benefit all Texans. For example, many of the flood control structures maintained by soil and water conservation districts serve to protect heavily populated areas from flood damage, and also prevent sediment from building up in suburban drinking water supplies. Another example is the use of best management practices, implemented through TSSWCB-certified water quality management plans, to prevent pesticides, nutrients, and other contaminants from impairing Texas waters.

The agency is responsible for numerous natural resource conservation efforts, the most prominent of which is serving as the lead state agency for the prevention, management, and abatement of nonpoint source pollution resulting from agricultural and silvicultural, or forestry-related, activities. As a result, the majority of the agency's programs and services aim to improve and protect water quality. The TSSWCB is also responsible for water conservation, or water quantity. The major existing program addressing water conservation is the Texas Brush Control Program, although the agency is conducting preliminary work on a new program that would provide assistance to Texas landowners who irrigate cropland from both ground and surface water sources. The Water Conservation Taskforce, created by Senate Bill 1094 from Senator Duncan, issued a final report to the Legislature recommending a state cost-share program be implemented through the TSSWCB to assist landowners in implementing best management practices that conserve water resources. If the agency is asked to fully develop the new program by the Legislature, it would likely be patterned after the Water Quality Management Plan Program created by Senate Bill 503 in 1993. Other responsibilities include prevention of soil erosion, control of floods, maintaining the navigability of waterways, the preservation of wildlife, protection of public lands, and providing information to landowners regarding the jurisdictions of the TSSWCB and the Texas Commission on Environmental Quality related to nonpoint source pollution. The TSSWCB has no regulatory functions; all of the agency's programs and services are voluntary in nature.

Clean Water Act, §319(H) Nonpoint Source Grant Program

Background

Congress enacted Section 319(h) of the Clean Water Act in 1987, establishing a national program to control nonpoint sources of water pollution. Through Section 319(h), federal funds are provided through the EPA to states for the development and implementation of the State's Nonpoint Source Management Program. The 319(h) funding in Texas is divided evenly between the TCEQ and TSSWCB. The following report provides an overview of TSSWCB's 319(h) program status and major ongoing activities.

State Nonpoint Source Management Plan

An approved management plan is a requirement for receiving 319 Grant funding. Because the State's overall Nonpoint Source Program is jointly administered between the Texas Commission on Environmental Quality (TCEQ) and the TSSWCB, both agencies recently revised the Texas Nonpoint Source Management Program Report for the years 2005 through 2010. The report, which went through extensive public comment and review, was approved by the TSSWCB on September 15, 2005, and by TCEQ on October 26, 2005. The document was certified by the Attorney General's Office and was submitted by the Governor to the Regional Administrator for U.S. EPA Region 6 on December 15, 2005. The document was approved by U.S. EPA Region 6 on February 10, 2006.

Project Management

There are currently 66 ongoing 319 projects (Attachment 2). The $25 million provided to these projects through Clean Water Act, §319(h) Nonpoint Source Grants between 2000 and 2005 is being utilized to abate NPS pollution from poultry operations and dairies, runoff of atrazine from cropland, salt cedar, watershed planning, groundwater quality improvement, assessing sources of bacteria, educational programs for the forest industry, and many other projects (Figure 1). Quarterly reports for ongoing projects were received on January 15, 2006 and April 15, 2006. To date, project reports have been received for 100% of the projects. These reports are entered semi-annually into EPA's Grant Reporting Tracking System. The TSSWCB also conducts financial audits on one 319 projects each quarter. During the 1st quarter of FY2006, an audit was conducted on the Delta SWCD 319 project on October 14, 2005. Several projects with the Texas A&M University System were audited during the 2nd quarter of FY2006.

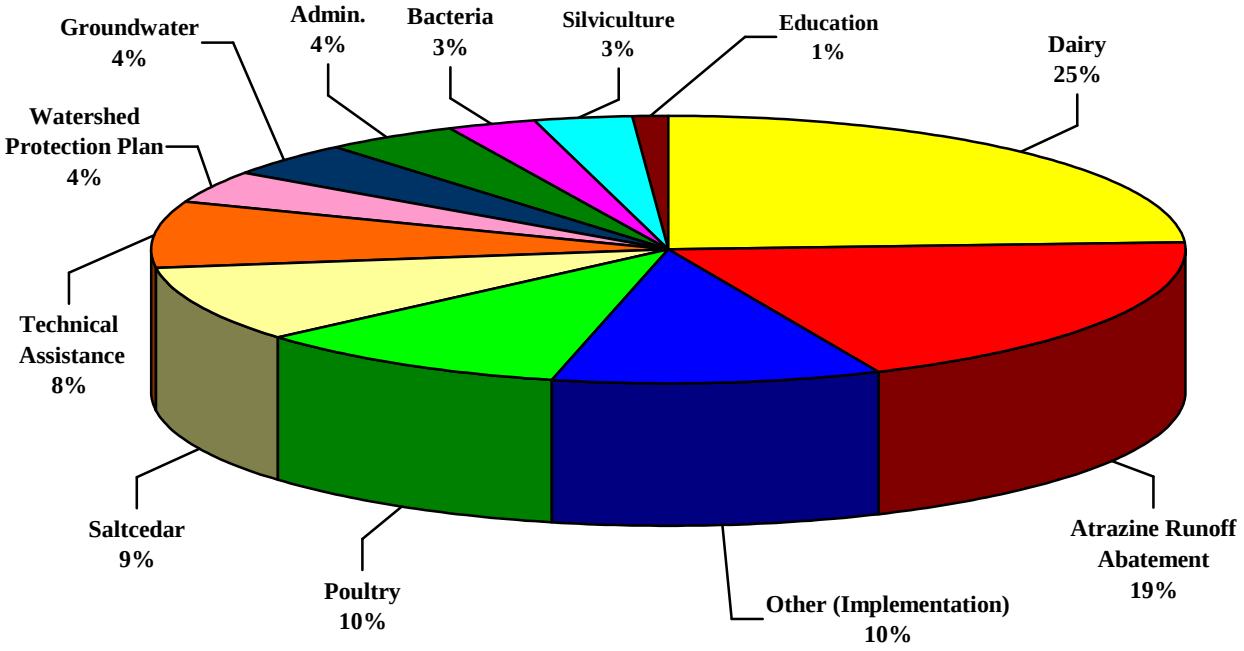


Figure 1.0 TSSWCB active federal 319(h) grants for FY 2000 – FY 2005.

TOTAL MAXIMUM DAILY LOAD (TMDL) PROGRAM

The 1972 federal Clean Water Act (CWA) §303(d) requires all states to identify waterbodies that do not meet water quality standards and are not supporting their designated beneficial uses. Each state must submit an updated list of these impaired waterbodies, called the 303(d) List, to the U.S. Environmental Protection Agency (USEPA) every two years. Once placed on the 303(d) List, a state must develop a Total Maximum Daily Load (TMDL) for the particular pollutant that is causing the impairment. This TMDL defines the amount of that pollutant that waterbody can assimilate and still meet water quality standards and support its designated beneficial uses. Based on this environmental target, a state then develops an Implementation Plan (IP) prescribing the measures necessary to mitigate anthropogenic (human-caused) sources of that pollutant in that waterbody. The TMDL and the IP together serve as the mechanism to reduce the pollutant, restore the full use of the waterbody and remove it from the 303(d) list. USEPA must approve the TMDL, but the IP only requires state approval.

In Texas, the responsibility to develop TMDLs is shared between two state agencies – the Texas State Soil and Water Conservation Board (TSSWCB) and the Texas Commission on Environmental Quality (TCEQ). TCEQ is the lead agency for protecting Texas' water quality. Except that, responsibility for managing nonpoint source (NPS) pollution is shared with TSSWCB. TSSWCB is the lead agency in Texas responsible for planning, implementing and managing programs and practices for abating agricultural and silvicultural NPS pollution. TCEQ administers the NPS program for all other forms of NPS pollution including urban, commercial and residential.

TSSWCB is actively engaged in the implementation of several approved TMDLs and IPs with agricultural or silvicultural NPS components:

- Aquilla Reservoir – Atrazine (Approved 2002)
- E.V. Spence Reservoir – Salinity (Approved 2001)
- North Bosque River – Nutrients (Approved 2002)

TSSWCB is collaborating with stakeholders on the development of IPs for TMDLs approved by TSSWCB and TCEQ and forwarded to USEPA for final approval:

- Lake O' the Pines – Dissolved Oxygen (Approved 2006)

Additionally, TSSWCB is actively involved in the development of TMDLs for waterbodies impaired, at least in part, by agricultural or silvicultural NPS pollution:

- Adams and Cow Bayous – Bacteria, Dissolved Oxygen, and pH
- Arroyo Colorado – Dissolved Oxygen
- Atascosa River – Bacteria
- Buck Creek – Bacteria
- Clear Creek – Bacteria
- Colorado River below E.V. Spence Reservoir – Salinity
- Copano Bay and Aransas and Mission Rivers – Bacteria
- Dickinson Bayou – Dissolved Oxygen
- Elm and Sandies Creeks – Bacteria and Dissolved Oxygen
- Gilleland Creek – Bacteria
- Guadalupe River above Canyon Lake – Bacteria
- Leon River below Proctor Lake – Bacteria
- Lower San Antonio River – Bacteria

- Oso Bay and Oso Creek – Bacteria and Dissolved Oxygen
- Peach Creek – Bacteria
- Upper Oyster Creek – Bacteria and Dissolved Oxygen
- Upper Trinity River – Bacteria

Various TSSWCB Programs, such as the CWA §319(h) NPS Grant Program or the WQMP Program, target these waterbodies for abatement projects as federal and/or state funding becomes available. These programs are described in detail in other sections of this Semi-Annual Report. Many of these waterbodies have projects currently in progress implementing practices to prevent and abate agricultural and silvicultural NPS pollution. For more information on the TSSWCB Total Maximum Daily Load Program, visit our website at http://www.tsswcb.state.tx.us/programs/tmdl.html.

WATERSHED PROTECTION PLAN (WPP) PROGRAM

Watershed protection planning is a process to develop and implement a locally driven Watershed Protection Plan (WPP) designed to protect unimpaired surface waters from pollution threats and restore impaired, polluted surface waters. This mechanism addresses complex water quality problems that cross multiple jurisdictions. WPPs serve as tools to better leverage the resources of local governments, state and federal agencies, and non-governmental organizations. WPPs integrate activities and prioritize implementation projects based upon technical merit and benefits to the watershed, promote a unified approach to seeking funding for implementation, and create a coordinated public communication and education program.

WPPs have a variety of ingredients and can take many forms. The Texas State Soil and Water Conservation Board (TSSWCB) sponsors WPPs which utilize guidelines promulgated by the U.S. Environmental Protection Agency (USEPA) in 2003 that describe nine elements fundamental to a potentially successful plan.

TSSWCB provides technical and financial assistance to local stakeholder groups in developing and implementing WPPs through four mechanisms. One, TSSWCB Regional Watershed Coordinators provide technical assistance to local stakeholder groups developing WPPs throughout their service area. Currently, the Wharton Regional Office is piloting this method in Southeast and South Central Texas. Two, TSSWCB provides financial assistance through the CWA §319(h) NPS Grant Program to entities facilitating the WPP process in watersheds with significant agricultural or silvicultural nonpoint source (NPS) potential. Three, TSSWCB staff provide technical assistance to facilitating entities engaged in WPP projects funded by other entities such as the Texas Commission on Environmental Quality (TCEQ). And four, TSSWCB partnerships with Texas Cooperative Extension and the Texas Water Resources Institute are resulting in the development of training programs for local stakeholder groups, such as the Texas Watershed Steward Program and the Texas Watershed Planning Short Course.

WPP projects sponsored by TSSWCB include:

- Concho River – Upper Colorado River Authority
- Lake Granger – Brazos River Authority
- North Bosque River – Brazos River Authority
- Pecos River – Texas Cooperative Extension and Texas Water Resources Institute
- Plum Creek – TSSWCB Wharton Regional Office and Texas Cooperative Extension

TSSWCB is participating in TCEQ sponsored WPP projects as well:

- Arroyo Colorado – Texas Sea Grant
- Bastrop Bayou – Houston-Galveston Area Council
- Caddo Lake – Northeast Texas Municipal Water District
- Dickinson Bayou – Texas Sea Grant
- Hickory Creek – City of Denton
- Lake Granbury – Brazos River Authority and Texas Water Resources Institute
- Upper San Antonio River – San Antonio River Authority

There are several other WPP projects across the state which are funded and sponsored by other agencies which may or may not accommodate USEPA's nine elements. TSSWCB is participating in these projects:

- Armand Bayou – Texas Sea Grant and Trust for Public Land
- Caney Creek – Caney Creek Conservation Foundation
- Lower and Middle Brazos River – Brazos River Authority
- North Central Texas (Five Reservoirs) – Texas Water Resources Institute and Tarrant Regional Water District
- Nueces River – U.S. Army Corps of Engineers
- Upper Colorado River – Colorado River Municipal Water District

In order to abate agricultural and silvicultural NPS pollution, WPPs will implement components of other TSSWCB Programs, such as the WQMP Program or the Brush Control Program. Additionally, the CWA §319(h) NPS Grant Program can serve as a funding source to implement the agricultural and silvicultural components of WPPs. These programs are described in detail in other sections of this Semi-Annual Report. For more information on the TSSWCB Watershed Protection Plan Program, visit our website at http://www.tsswcb.state.tx.us/programs/watershed.html.

Water Quality Management Plan (WQMP) Program

In 1993, the Texas Legislature passed Senate Bill 503 that directed the TSSWCB to implement Water Quality Management Plans (WQMPs) in Texas. The agency has implemented more than 6000 WQMPs since the inception of the program.

The WQMP Program is administered from five Regional Offices around the state. A poultry WQMP office will open in Nacogdoches in January 2005. The Regional Offices are:

- Dublin Regional Office
- Hale Center Regional Office
- Harlingen Regional Office
- Mount Pleasant Regional Office
- Wharton Regional Office
- Poultry Program Office (Nacogdoches)

A WQMP is a site-specific conservation plan developed through (and approved by) SWCDs for agricultural or silvicultural lands. The plan includes appropriate land treatment practices, production practices, management measures, technologies or combinations thereof. The purpose of WQMPs is to

achieve a level of pollution prevention or abatement determined by the TSSWCB, in consultation with local soil and water conservation districts, that is consistent with state water quality standards.

The TSSWCB selected requirements for a WQMP based on the criteria outlined in the *Field Office Technical Guide (FOTG)*, a publication of the United States Department of Agriculture's Natural Resources Conservation Service (NRCS).

Nutrient management must be included if nutrients are applied. If an animal feeding operation is involved (such as an unpermitted dairy), a WQMP will be planned with practices that individually or in combination with other practices will properly manage animal wastes. Waste utilization will be considered when agricultural wastes are applied. These WQMPs also have subcomponents for irrigation waters, erosion control, and are flexible enough to cater to a wide range of operating systems.

Agricultural and forestry landowners may enter into these cooperative agreements with their local district to control nonpoint source pollution from their operations. While the decision to develop a plan is voluntary, landowners have many reasons to do so. These plans provide for landowners to use best management practices in their operations to protect their most precious agricultural resources by controlling erosion, conserving water, and protecting water quality. In addition, certified plans have the same legal status as Texas Commission on Environmental Quality (TCEQ) point source pollution permits, without having to go through that agency's regulatory process. Landowners may also receive financial incentives to help pay for implementing these plans.

It should be noted that an animal feeding operation that is required by law to operate within the confines of a water quality permit issued by the TCEQ may not participate in the TSSWCB program.

Water Quality Management Plans are especially useful for animal feeding operations. Depending on their size, animal feeding operations may be regulated by TCEQ as a point source or are unregulated and eligible for the TSSWCB's voluntary program. Generally, these feeding operations are classified according to the number of animals they have, calculated as "animal units"; however, TECQ has adopted rules that provide if you have or exceed a certain number of animals, you will be regulated. Animal feeding operations with more than the number of animals listed in TCEQ rules must apply for a permit. Most animal feeding operations in Texas are not large enough to require a permit, which makes this program critical to protecting Texas' water quality.

In developing the Water Quality Management Plan, the TSSWCB, SWCDs, and the USDA Natural Resources Conservation Service (NRCS) provide technical assistance to help the landowner meet the criteria of the plan. A plan establishes practices and installations on the farm that adhere to best management practices specific for that area. The various installations that a plan calls for depend on the operation. A farm may include a combination of cropland, dairy cows, poultry, hogs or cattle.

These plans may also include erosion control measures such as terraces or grass waterways; or they may address nutrient management to help landowners avoid over-fertilizing their land, or over-applying animal waste. Although a plan will take into consideration each farm's unique components, all WQMPs generally attempt to control erosion, conserve water, and protect water quality.

Upon TSSWCB certification of a WQMP, a landowner may apply for a financial incentive that will help pay for implementing the plan. Local districts have varying rates for sharing the cost of plan implementation, however cost-share may not exceed 75% with a maximum $10,000 grant limit per plan.

Landowners receiving financial incentive have approximately are now given a specific time period to implement conservation practices, otherwise, their applications are cancelled automatically and the funds are reallocated to another plan. This approach hopefully will reduce the amount of lapsed funds.

The TSSWCB allocates money to local districts for financial incentives based on whether the area has impaired water bodies as determined by TCEQ, or if the TSSWCB had previously designated it as a priority. Most of these financial incentives were appropriated from General Revenue funds. Some plans received financial incentives from federal funds. State appropriations provided to local districts in FY05 amounted to $2,226,042.00 to carry out a WQMP cost-share program in their district.

In addition to certifying WQMPs to ensure that they help abate nonpoint source pollution, the TSSWCB monitors WQMPs to ensure they are properly implemented. Each year, the TSSWCB conducts status reviews on a minimum of 10% of the plans. Additional technical assistance may be offered to a landowner when a WQMP is found noncompliant. In the unlikely case that the landowner does not achieve compliance with the WQMP, the TSSWCB may decertify the plan.

During FY03, the WQMP Program was administered from the TSSWCB office in Temple. The staff reductions in the FY04 budget made it necessary for the program to be reorganized and the Regional Offices activities are now coordinated through the Harlingen Regional Office. Additionally, plan certification authority was shifted from the Temple headquarters to each regional office. This change is already expediting the certification process and reducing postage expenditures, while maintaining the integrity and standards of the program.

The last adjustment involved the complaint process, which was also administered out of the headquarters office during FY03. Headquarters office no longer has an individual to do complaint inspections and all complaints are investigated from the appropriate Regional Office.

Current Status

A total of 679 water quality management plans were certified in FY-06. As of April 30, 2006, the deadline for districts to obligate FY-06 cost-share funds, $1,746.119.00 had been obligated in the 5 priority areas of the state. This represents 89.7% of the total allocation. These funds must be expended by August 2008.

Applications for cost-share assistance approved in FY-04 will expire in August 2006. Indications are that the amount of lapsed funds from the FY-04 cycle will be significantly lower than in previous years.

Poultry Water Quality Management Plan (WQMP) Initiative

In 1994, the Texas State Soil and Water Conservation Board (TSSWCB) began assisting poultry operations with the establishment of the Northeast Texas - Senate Bill 503 Cost-share Area. Since 1994, over $300,000 of WQMP Program funding has been provided annually to six soil and water conservation districts (SWCDs) in Northeast Texas to address animal feeding operations (AFOs). Shelby SWCD began receiving SB 503 funds in FY 2005.

In 1995, the TSSWCB initiated three federal Clean Water Act, §319(h) projects to demonstrate composting as a means for dead bird disposal, buffer strips, and proper land application of poultry litter. In 1996, the TSSWCB expanded its efforts by initiating a composting and marketing project. This effort

to promote the installation of composters and other means of mortality management on poultry farms resulted in accelerated WQMP development.

In 1997, the Texas Legislature passed Senate Bill 1910, which required all poultry farms to have a TCEQ-approved method of dead bird disposal. The law took effect in March 1998. However, the rules were not adopted and did not take effect until fall 1999. It was during this time that requests for poultry-WQMPs significantly increased due to pursuit of cost-share for mandated mortality management. This activity intensified the TSSWCB's poultry initiative.

In 1999, in response to water quality concerns and the initiation of TMDL development in the Big Cypress/Lake O' the Pines watershed, the TSSWCB began using §319 funds for cost-share in the area in addition to the Senate Bill 503 cost-share funds already directed to the watershed. Due to rising concerns in nearby watersheds, the TSSWCB also included the Sam Rayburn and Toledo Bend Reservoir watersheds in its initiative in 1999. The TSSWCB expanded the poultry initiative again in 2001 to the Gonzales area.

Beginning in 2001, seven soil and water conservation district (SWCD) technicians were employed under federal Clean Water Act §319 contracts to develop WQMPs in poultry producing areas. Six of those contracts expired in 2004 and the seventh expired in March 2005. An eighth §319 district technician was hired in 2003 with the Shelby SWCD and that contract will expire in March 2007. Three SWCD technicians were hired with state funding from SB 1339 and those projects will expire in August 2006. In June 2006 another SWCD technician was hired with SB 1339 funds, and another is pending, to help with WQMP development for the Sanderson Farms expansion in the Waco area. Those contracts are scheduled to extend through August 2007. As currently contracted, only 5 SWCD technicians are available statewide to assist with poultry WQMP development and review during FY 2006 and only three technicians will be available into FY 2007.

In 2001, the 77th Legislature passed Senate Bill 1339, which requires all poultry facilities in Texas to operate in accordance with a WQMP certified by the TSSWCB. The review and certification process assures the plan includes appropriate practices, management measures, and schedules of implementation.

This law provides a staggered-schedule of deadlines by which each producer, depending on their initial date of operation, must have requested the development of a WQMP from their soil and water conservation district. Any commercial poultry facility constructed after January 1, 2002 is required to have a WQMP prior to the receipt of any birds.

Currently, the TSSWCB is aware of 1484 total dry-litter poultry farms, of which 1374 (93%) currently operate under a certified WQMP. The TSSWCB estimates that 45 farms need to request a plan before January 2008. The other estimated 65 farms have already requested a plan and those plans are in various stages of development. However, there is an ongoing challenge of identifying new poultry farms continually being constructed and put into production and locating other poultry farms not yet identified. Sanderson Farms has announced it will need about 120 new contract farms in the Waco area to supply a new processing plant scheduled to open in August 2007. TSSWCB staff is already developing WQMPs for some of these proposed new farms.

Due to changes made by the U.S. Environmental Protection Agency (EPA) to the federal regulations for concentrated animal feeding operations (CAFOs), the Texas Commission on Environmental Quality (TCEQ) adopted a rule change in 2004 that requires dry-litter poultry operations larger than 125,000

broilers or pullets, 82,000 layers or breeders, or 55,000 turkeys to operate under a water quality permit. Prior to this change in the federal regulations, dry-litter poultry operations were not required to have a permit. The requirement for a permit was initially scheduled to become effective in April 2006. However, due to a federal court decision by the U.S. 2nd Circuit Court of Appeals in February 2005, the EPA issued a notice that the date by which a permit must be obtained has been extended to July 31, 2007. Also in compliance with the court decision, the EPA released additional proposed rule changes in June 2006. There will be a 45-day comment period along with nation wide public meetings to receive comments. Under the proposed new rule, farms that do not actually discharge wastes to waters of the U.S. are not required to apply for permit coverage, thereby eliminating the need for dry-litter operations to apply. However, TCEQ's rules are still in effect pending that agency's decision to change their rules to be consistent with EPA's. TSSWCB estimates between 200-500 existing dry poultry operations would meet the current TCEQ requirements for a permit. The current CAFO rule adopted by TCEQ recognizes that poultry operator's existing WQMP meets the majority of the technical requirements required by a permit. The TSSWCB staff has a new guidance document, *Supplemental Guidance - Pollution Prevention Plans for Dry-Litter Poultry Operations Applying for General Permit Coverage*, to assist poultry producers in utilizing their existing WQMPs as a component to the general permit if needed. TSSWCB will perform status reviews on 20% per year of the permitted operations that use WQMPs as a permit component. TSSWCB will transmit information on each of these status reviews to TCEQ on a quarterly basis. Noncompliant producers will be referred to TCEQ under an existing process.

In FY 2006, the TSSWCB Poultry Office, located in Nacogdoches, continues to develop, update, and review Water Quality Management Plans for poultry producers and provide assistance with all issues related to the Poultry WQMP Program. The Poultry Program Supervisor and two Natural Resource Specialists staff the office. Approximately 674 (45%) of the estimated 1484 dry-litter poultry farms in Texas are located in an eight-county area surrounding Nacogdoches. Approximately 66 (10%) of the farms in those counties still need a WQMP developed. The office also assists other soil and water conservation districts in the state with poultry WQMP development as needed.

The following is a summary of the status of farms statewide needing a WQMP that TSSWCB is currently aware of:

Date Due	Status	Number of Farms
Prior to Bird Placement	Not Signed-up	105 (Sanderson Farms in Waco Area)
	Plans in Progress	9 (Sanderson Farms in Waco Area)
	Plans certified	6 (Sanderson Farms in Waco Area)
1/1/2002	Not Signed-up	0
1/1/2002	Plans in Progress	0
1/1/2003	Not Signed-up	0
1/1/2003	Plans in Progress and/or Signed-up	1
1/1/2005	Not Signed-up	0
1/1/2005	Plans in Progress and/or Signed-up	0
1/1/2008	Not Signed-up	45
1/1/2008	Plans in Progress and/or Signed-up	49

Unknown	Not Signed-up	0
Unknown	Plans in Progress and/or Signed-up	15
Subtotal:		230
Unknown	Additional Gonzales area farms*	30

* One integrator in the Gonzales area has indicated approximately 30 farms that are or have been wet operations and required permits will now convert to dry operations and will need WQMPs.

NORTH BOSQUE RIVER WATERSHED INITIATIVE

In 1998 the North Bosque River (Segments 1226 and 1255) was included in the Texas CWA §303(d) List of impaired waters under narrative water quality standards related to nutrients and aquatic plant growth. In February 2001, the TCEQ adopted Two Total Maximum Daily Loads for Phosphorus in the North Bosque River for segments 1226 and 1255.

The TMDLs concluded that:

- Use of the two segments was "impaired" by high levels of nutrients.
- The nutrient of principal concern was soluble reactive phosphorus (SRP)
- Reduction of SRP of approximately 50% would reduce the potential for problematic algal growth in the river.
- The major controllable sources of nutrients in the North Bosque River basin were municipal wastewater treatment plants (WWTPs) and NPS pollution from dairy waste application fields (WAFs).

In December 2002, both the TCEQ and the TSSWCB adopted An Implementation Plan for Soluble Reactive Phosphorus in the North Bosque River Watershed. The four basic elements of phosphorus control identified in the plan were:

- Phosphorus application rates in WAFs.
- Reduced phosphorus diet for dairy cows to reduce the phosphorus content of dairy wastes.
- Removing approximately half of the dairy-generated manure from the North Bosque River watershed for use or disposal outside of the watershed.
- Effluent limits on phosphorus for municipal wastewater treatment plants.

Before and since the adoption of the Implementation Plan, the TSSWCB TMDL Program has been actively working on numerous projects and programs designed to assist the agricultural community in meeting its recommendations and requirements. Clean Water Act §319(h) Grant Program funding has been used extensively to assist in the development and implementation of the North Bosque River TMDL. Currently, seven CWA §319(h) are actively assisting the implementation of the North Bosque River TMDL. All of the efforts explained in the following discussions are in support of the TMDL and the Implementation Plan.

DAIRY MANURE EXPORT SUPPORT (DMES) PROGRAM

The TSSWCB initiated the Dairy Manure Export Support (DMES) program in an effort to bring an innovative solution to the problem of elevated phosphorus levels in the North Bosque and Leon River Watersheds. The DMES program offers financial incentives to commercial manure haulers to support the transport of raw manure from dairy farms in the North Bosque and Leon River Watersheds to commercial composting operations. The raw manure is then improved through a composting process so it may be put to beneficial use. Entities such as the Texas Department of Transportation and municipalities, as well as agricultural producers and the general public are some of the target purchasers of the composted product. The TCEQ, TSSWCB's partner in the overall regional program, provides rebates to these target purchasers to facilitate the development of a sustainable market. The export of this surplus manure (and the nutrients contained in the manure) will help address concerns regarding potential NPS water quality impacts associated with traditional on-farm land application of manure in the region.

Overall DMES program management is controlled through the TSSWCB. The TSSWCB has contracted everyday activities to the Texas Institute for Applied Environmental Research (TIAER) at Tarleton State University. In April 2001, TIAER subcontracted many aspects of the program to the Foundation for Organic Resources Management (FORM), which was replaced by imanage, LLC in July 2003. Through FORM, and later imanage, LLC, the DMES program has been managed at the local level through a DMES program office located in Stephenville, Texas. The TSSWCB has contracted TIAER to manage the program through September 30, 2006..

Participation requirements for dairies include being located in the North Bosque and/or Leon River Watersheds. Dairies must have (or have applied for) a TSSWCB–certified Water Quality Management Plan or a TCEQ water quality permit and an approved nutrient utilization plan. Each composting facility must be compliant with all state regulations regarding compost facilities and be approved for participation in TCEQ's Composted Manure Incentive Project (CMIP). Manure haulers must attend a workshop convened by the TSSWCB's contractor and obtain a vendor number from the Texas State Comptroller and authorize direct deposit.

Individual hauling jobs are coordinated through manure haulers that make arrangements with dairies and commercial composting operations. A manure hauler completes a job notification form, which is then submitted to the DMES office for approval. Once approval is received, the manure hauler performs the work and submits an invoice to the DMES office, which is signed by a representative of the dairy, accompanied by load tickets signed by a representative of the composting facility, and a scale ticket for each load. The DMES office prepares semi-monthly reimbursement request summaries, has them approved by TIAER, and then submits them to the TSSWCB for payment. Because the TSSWCB is using Clean Water Act §319(h) funding from the U.S. Environmental Protection Agency (EPA), the TSSWCB must then request that the funds be released from EPA to the TSSWCB. The TSSWCB then issues reimbursements via direct deposit to the manure haulers.

The initial goal of the DMES program was to export 300,000 tons of manure from participating dairy farms during in a three-year project period from November 2000 through October 2003. That benchmark was exceeded in less than two years. Based on remaining funds, the DMES program was projected to end in September 2005. However, an additional appropriation from the 79th Texas Legislature and a CWA §319(h) grant through the TSSWCB will enable the project to be phased out at a reduced reimbursement rate over the course of an additional year.

As of May 31, 2006 more than 985,000 tons of manure has been hauled to commercial composting facilities. It is estimated that this prevented the land application of more than 3 million lbs of phosphorus.

COMPREHENSIVE NUTRIENT MANAGEMENT PLAN (CNMP) PROGRAM

The TSSWCB Comprehensive Nutrient Management Planning (CNMP) Program was developed in response to a control measure recommended in the Implementation Plan for the North Bosque River Total Maximum Daily Load for Soluble Reactive Phosphorus. The implementation plan recommended that dairy producers in the watershed voluntarily develop and implement a CNMP, however, the Texas Commission on Environmental Quality (TCEQ) adopted a rule that makes the recommendation a requirement. This program is confined to the North Bosque River Watershed by TSSWCB rule.

A CNMP is a resource management plan containing a grouping of conservation practices and management activities which, when combined into a conservation system, will help ensure that both agricultural production goals and natural resource concerns dealing with nutrient and organic by-products and their adverse impacts on water quality are achieved. A CNMP incorporates practices to utilize animal manure and organic by-products as a beneficial resource. The TSSWCB selected requirements for a CNMP based on the TCEQ rules and regulations required for permitted and unpermitted animal feeding operations and criteria outlined in the Field Office Technical Guide (FOTG), a publication of the United States Department of Agriculture's Natural Resources Conservation Service (NRCS). The FOTG represents the best available technology and is already tailored to meet the needs of soil and water conservation districts all over the nation. To be certified by the TSSWCB, the local SWCD, the producer, and the local NRCS Field Office must approve a CNMP.

Although there are approximately 70 dairies in the North Bosque River watershed, only a small number have been submitted for technical review and certification. As of June 1, 2006, the TSSWCB had certified seven CNMPs. The TSSWCB, Natural Resources Conservation Service, and the Texas Association of Dairymen have held numerous meetings with dairy producers and technical service providers since January 2006 in an effort to facilitate development and submittal.

TEXAS ATRAZINE INITIATIVE

BACKGROUND

Atrazine is a pre-emergent herbicide primarily used to control broadleaf and grassy weeds in corn and sorghum. Since it went on the market in 1958, it has become the most widely used herbicide in the United States.

It is classified as a restricted use herbicide due to its potential for groundwater contamination. Inconsistent with its restricted use designation, it is commonly found in W*eed and Feed* and other home and garden products, making it not only an agricultural issue, but an urban issue as well.

Atrazine, a chlorinated triazine herbicide, acts as a photosynthesis inhibitor. It is nontoxic to humans, having about the same toxicity as table salt. It has no adverse reproductive effects. It’s not teratogenic or mutagenic. Only low levels of bioaccumulation may be expected in fish organs. It is nontoxic to birds and only slightly toxic to aquatic life.

Atrazine is, however, a possible human carcinogen (Class C). Due to this, a Maximum Contaminant Level (MCL) of 3 μg/L (micro-grams per liter) has been established for finished drinking water. A micro-gram would equate to 0.000,001 grams per liter of water.

Atrazine is persistent in the environment, having a field half-life of 60 days. It is moderately soluble in water and is not removed from drinking water by conventional water treatment methods. Activated carbon, ozonation, cation exchange, and UV treatment methods must be used to remove it from drinking water.

Because of its persistence, solubility, and widespread use, Atrazine is commonly found in surface water. A 1993-95 US Geological Survey (USGS) study of pesticides in urban and agricultural streams in the Trinity River Basin found Atrazine in 100% of samples from both sources. This suggests that Atrazine is both an agricultural and urban problem. The concentrations in the agricultural streams were, however, greater than the concentrations in the urban streams.

DEVELOPMENT OF THE TEXAS APPROACH

In Texas, testing of Atrazine in drinking water began in 1993. However, the method used only had a detection limit of 3 μg/L, and little detection was observed. In 1996, the state began using EPA (testing) Method 525.2, which has a much lower detection limit 0.065μg/L. Once the state began using this new (testing) method, numerous detections began appearing around the state in both surface and groundwater supplies. Between 1996 and 1999, Atrazine was detected in 69 water supplies around the state. In addition to drinking water monitoring, some raw water monitoring for Atrazine has been performed, but it has been infrequent and project specific.

In 1995, due to a detection of 9.6 μg/L in Marlin City Lake, the Marlin City Manager contacted the TCEQ-Source Water Assessment and Protection (SWAP) team for assistance. The City of Marlin and TCEQ-SWAP team then approached EPA for federal assistance. In 1996, Marlin City Lake was designated an EPA Region 6 Pilot Source Water Protection Program project.

To deal with the growing number of Atrazine detections around the state, TCEQ-SWAP formed an "Atrazine Steering Committee" in 1997 (later, the committee was renamed the "Surface Water Protection Committee). Committee membership consisted of the TSSWCB, the TDA, Texas A&M University, Novartis, the USDA- NRCS, the USDA-Agricultural Research Service (ARS), the Texas Farm Bureau, the Brazos River Authority, and municipal representatives. The committee's goal was to develop a strategy to address the numerous detections of Atrazine in drinking water in a proactive manner through BMP implementation and public education.

In 1998, nine reservoirs were listed as impacted by Atrazine on the §303(d) List. One of these, Aquilla Reservoir was listed as impaired by Atrazine. The running annual average at the Aquilla Water Supply District's treatment plant for the second quarter of 1997 through the first quarter of 1998 was 4.0 μg/L, violating the drinking water standard (3 μg/L) and triggering the listing of Aquilla Reservoir as an impaired water of the state. The other eight reservoirs, Lake Bardwell, Joe Pool Lake, Marlin City Lake, Lake Lavon, Lake Tawakoni, Richland Chambers Lake, Lake Waxahachie, and Big Creek Lake, were listed as threatened by Atrazine.

Following the listing of these reservoirs on the §303(d) List, the state began developing and implementing an initiative to remediate the Atrazine threats and impairments consisting of:

- Performing a standard TMDL in Aquilla Reservoir
- Building on the Source Water Protection Program in Marlin City Lake
- Performing targeted monitoring and implementing BMPs in the 7 threatened lakes

IMPLEMENTATION OF THE ATRAZINE INITIATIVE

The Aquilla TMDL was initiated in November 1998. It was a cooperative effort among the Texas Agricultural Experiment Station (TAES), Texas Cooperative Extension (TCE), Texas Department of Agriculture, Texas A&M University, TCEQ, TSSWCB, NRCS, Novartis, and local stakeholders. Over $500,000 was provided for the Aquilla and Marlin projects through PPG funds, §§319(h), 604(b), Source Water Protection, TCEQ GR, and in-kind contributions. Stakeholder committees were formed for the Marlin and Aquilla projects. Training for pesticide applicators, demonstration of BMPs, and TEX*A*SYST was provided by the TAES in cooperation with the TCE. The Texas Agricultural Experiment Station conducted monitoring in the Aquilla and Marlin Watersheds. SWAT modeling of the watershed was completed as an in-kind contribution effort of NRCS, TDA, and TCEQ. Economic analyses of the implementation of BMPs on farms in both watersheds were also completed by the TAES.

The TMDL for Atrazine in Aquilla Reservoir was adopted by the TSSWCB and TCEQ in March 2001, and was revised in June 2002 in response to comments from the Environmental Protection Agency (EPA). The implementation plan was approved by the TSSWCB and TCEQ in January 2002. Region 6 of the EPA approved the TMDL on October 30, 2002.

The TMDL stated that a load reduction of approximately 25% would result in attainment of the water quality standards.

The environmental target set for measuring the success of the TMDL implementation plan is a running annual average concentration of Atrazine *in the reservoir* that does not exceed 3.0 μg/L for two consecutive years.

The TCEQ and the TSSWCB had the leadership roles for implementing the project, as well as for developing the TMDL. The key groups involved in implementing the plan at the local watershed level were agricultural producers and city governments. Regionally, the key partners were Aquilla Water Supply District, the Woodrow-Osceola Water Supply Corporation, the Hill County Appraisal District, and the Hill County-Blackland Soil and Water Conservation District. The Texas Cooperative Extension (TCE) and the Texas Department of Agriculture (TDA) also implemented aspects of the project. The U.S. Army Corps of Engineers, the federal agency that owns and operates the lake, also cooperated.

Since the source of the Atrazine was known, some activities were initiated before the TMDL and its implementation plan were complete. In 1998, the NRCS established the Aquilla EQIP Priority Area. From 1998-2003, the NRCS obligated over $2 million to implement BMPs in the Aquilla Watershed. Along with the EQIP funding, the TSSWCB initiated a §319 project in 1999 to provide cost-share and technical assistance through the Hill County-Blackland SWCD to encourage the implementation of BMPs in the Aquilla Watershed to reduce sediment and pesticide runoff from corn and sorghum farms.

In 1999, Aquilla area farmers formed a Producers Atrazine Action Committee. Meetings featured speakers on water quality topics and training on pesticide application. The Producers Committee developed a list of BMPs recommended for use in the watershed, and composed a questionnaire to document adoption of BMPs over time. In addition, the committee met with pesticide dealers to increase

dealers' awareness of the problem and to gain their assistance. The practice to incorporate herbicides into the soil upon application was already adopted by about 33% of area producers at the end of the first year, and reached nearly 100% by the third year of the project.

In the seven threatened lakes, targeted monthly monitoring was conducted near water supply intakes to verify the level of impairment and provide baseline data for future actions. Texas A&M University conducted the analysis. Water quality sampling conducted by the TCEQ was used to measure the effectiveness of the practices. In addition, Syngenta, a private corporation that markets Atrazine, continued its voluntary pesticide-monitoring program with the area's public water suppliers.

Partners in the program include the TSSWCB, the TCEQ, the TDA, the TPWD, the Texas Agricultural Experiment Station (TAES), the TCE, and the federal Natural Resources Conservation Service (NRCS). Several other agencies and interested parties were involved, including the EPA, the Brazos River Authority, the Sabine River Authority, the Aquilla Water Supply District, and Syngenta (formerly Novartis), a private corporation.

Monitoring was completed in August 2003, with the exception of Bardwell and Lake Waxahachie. The City of Waxahachie continues to sample these lakes to obtain the needed 36 monthly samples.

Technical and financial assistance was provided to corn and sorghum farmers to implement BMPs in the seven lakes watersheds through 12 TSSWCB §319 projects funded by EPA, over $4.1 million in cost share and TA was provided to farmers through SWCDs. Demonstrations, monitoring, and modeling were also conducted through TSSWCB 319 projects to support and evaluate the implementation of BMPs in the seven threatened lakes. Through the TSSWCB 319 program, almost $4.6 million has been obligated to address the Atrazine issues in the seven threatened lakes.

In 2000, the Little River was listed as threatened by Atrazine. In response to this listing, the TSSWCB initiated two 319 projects in 2002 to provide technical and financial assistance to the area to address this threat. These efforts were continued in 2003 with the provision of additional funding. Over $1.1 million in 319 funding has been provided to encourage BMP implementation.

ATRAZINE INITIATIVE RESULTS – A SUCCESS STORY

As a result of the Atrazine Initiative, Atrazine concentrations in Aquilla Reservoir have been reduced to safe levels. Between 1998 and 2003, Atrazine concentrations in Aquilla Reservoir have been reduced by approximately 60%, to amounts lower than those required for treated drinking water. There have also been no Atrazine concentrations higher than the allowable amount at the Aquilla Water Supply District's drinking water treatment plant. Monitoring will be continued on a quarterly schedule to ensure that Atrazine concentrations remain at a safe level. The BMPs implemented to help reduce the level of Atrazine are under contract for five years and as long as they are maintained, the level of detectable Atrazine should remain below standards.

Monitoring by TCEQ indicates that Atrazine concentrations in five of the seven lakes have been reduced to levels that warrant their reclassification from threatened. Those lakes are now attaining their uses as a source for treated drinking water.

The other two lakes, Bardwell and Waxahachie Reservoirs, are still being monitored. However, trends in those two reservoirs indicate that they, too, will no longer be classified by the TCEQ as threatened within the next six months.

COASTAL MANAGEMENT PROGRAM

BACKGROUND

The Texas Coastal Management Program (CMP) was created to coordinate state, local, and federal programs for the management of Texas coastal resources. The program brings in federal Coastal Zone Management Act (CZMA) funds to Texas state and local entities to implement projects and program activities for a wide variety of purposes. The Coastal Coordination Council (CCC) administers the CMP and is chaired by the Commissioner of the GLO. It comprises the chair or appointed representatives from the TPWD, the TCEQ, the TWDB, TxDOT, a member of the Texas State Soil and Water Conservation Board, a member of the RRC, the director of the Texas A&M University Sea Grant Program and four gubernatorial appointees. These members are selected to provide fair representation for all aspects concerning coastal issues.

The Council is charged with adopting uniform goals and policies to guide decision-making by all entities regulating or managing natural resource use within the Texas coastal area. The Council reviews significant actions taken or authorized by state agencies and subdivisions that may adversely affect coastal natural resources to determine their consistency with the CMP goals and policies. In addition, the Council oversees the CMP Grants Program and the Small Business and Individual Permitting Assistance Program.

The Coastal Zone Act Reauthorization Amendments (CZARA), Section 6217, requires each state with an approved coastal zone management program to develop a federally approvable program to control coastal nonpoint source pollution. The Texas CCC appointed a Coastal Nonpoint Source Pollution Control Program workgroup to develop this document. The National Oceanic and Atmospheric Administration and the U.S. Environmental Protection Agency jointly administer the program. In Texas, two agencies hold primary responsibility for the program's development and implementation: the Texas Commission on Environmental Quality and the TSSWCB.

Section 6217 calls for implementation of management measures (§6217(g) measures or (g) measures) that will control significant nonpoint sources of pollution to coastal waters. Six source categories are addressed by these measures: agriculture, forestry, urban and developing areas, marinas, wetland/riparian areas, and hydro modification. States can use voluntary approaches combined with existing state authorities to achieve implementation of management measures. However, if the voluntary mechanisms are not effective, states must have backup enforcement authorities in place to ensure that management measures are implemented.

Texas submitted the Texas Coastal Nonpoint Source Pollution Control Program to EPA and NOAA in December 1998. In October 2000, Texas submitted the Texas Coastal NPS Control Program 15-year Program Strategy and FY 2001-2005 Implementation Plan.

Final findings were issued by NOAA/EPA in July 2003, which contained conditional approval of the program. The agricultural and silvicultural portions of the program were approved without conditions.

CURRENT STATUS

The TSSWCB is responsible for implementing the agricultural and silvicultural management measures of the program. The main mechanism we have for this is the State's cost-share program for implementing Water Quality Management Plans on farms and ranches through local soil and water conservation districts (SWCD). For over six years, more than $300,000 of state funds has been spent annually in the coastal zone districts to provide cost-share to implement over 1600 Water Quality Management Plans.

In addition to state funding, Texas receives §6217 funding from NOAA for implementing the Coastal Nonpoint Source Pollution Control Program. For the past several years, SWCDs in the Coastal Management Zone have received grants from NOAA's §6217 Implementation Funds to install agricultural management measures through

the TSSWCB Water Quality Management Plan program. This has been very effective in expanding Texas' effort in carrying out the agricultural portion of its coastal nonpoint source program.

In March 2004, NOAA issued final guidance for the program funds. The guidance no longer allows these funds to be used to implement agricultural best management practices on private lands. As a result, federal funding is no longer available for SWCDs to implement agricultural management measures beginning in FY06. In addition, the FY05 NOAA budget cut the Coastal Nonpoint Source Pollution Control Program funding by 70%. The FY05 amount Texas received was only $112,000. The amount of FY06 funding for coastal nonpoint source pollution control programs was only $99,000.

In the meantime, our Water Quality Management Plan program in the coastal management zone continues.

Implementation of the silvicultural management measures in the coastal zone is through a CWA §319 grant from the TSSWCB to the Texas Forest Service.

INFORMATION TECHNOLOGY

Tracking WQMPs with T0CA

T0CA is a groundbreaking application that provides a new and unprecedented level of water quality management plan (WQMP) data access to program administrators and technical employees.

After greatly expanding the capability of this application beyond its original goals, the agency's first-ever web-based database application to track agency WQMP information was launched in March 2006.

T0CA provides a secure, web-based front-end to a comprehensive database of WQMP information. The program is divided into portals to serve each of the areas overseen by the agency regional offices, with data input and maintained by regional office staff. An additional portal is also available, allowing queries to be run on all or part of the input data.

Initial goals called for the entry of WQMP data from recent fiscal years, however, program success to this point has called for a recently revised goal of inputting all WQMP records into the system. With data entry still active late in the reporting period, data on 6,532 WQMPs and 50,552 conservation practices had already been entered into T0CA.

The conservation programs staff, in particular the regional office administrative assistants, worked closely with the IT department in the development and prototyping of T0CA. Future goals for T0CA include expanding the usefulness of WQMP data through means such as the integration of query results with geographic information systems (GIS) applications used by technical staff.

The application was developed and implemented in-house entirely with open source software and resulted in no cost to the agency for software, licensing or external support.

Electronic Submission Application for 2008 - 2009 SWCD Budget Request

The IT Department, working the fiscal affairs department and the agency field representatives, developed a new web-based application designed to provide Texas SWCDs a secure, electronic means to complete their fiscal year 2007 and 2008 budget requests for program assistance.

The project was deemed a success after it allowed for faster and easier submission of budget requests when compared to previous years when only paper submissions were allowed. Additionally, the TSSWCB was able to manipulate budget request data in a more efficient manner as information collected

by the application was submitted in a form conducive to the reporting and analysis needed by the fiscal affairs department.

SWCDs were offered the option of submitting requests either with the new electronic system, or through paper forms, as they had in the past. A future goal is for all submissions to be made electronically. Approximately 50 percent of SWCDs used the new system during the reporting period. Informal feedback from SWCDs and agency staff on the system was very positive.

The application was developed and implemented in-house entirely with open source software and resulted in no cost to the agency for software, licensing or external support.

2006 TA/Agwater/TSP Reporting Log for Texas SWCDs
The IT department, working closely with the fiscal affairs department, developed and launched this web-based application to help track program cost-share payments. This application for the first time provides secure, web-accessible information to Texas SWCDs related to cost-share data from the Technical Assistance, Agwater and Technical Service Provider programs. Data is entered and maintained by TSSWCB executive/administrative assistance staff.

The application was developed and implemented in-house entirely with open source software and resulted in no cost to the agency for software, licensing or outside support.

TSSWCB IT Support – Electronic Help Desk Support
The IT department rolled out a new electronic help desk application designed to help IT staff track trouble tickets and bug reports throughout all areas of the agency's information technology operations.

The system is initially being used to track all reported issues and, additionally, allow a pilot group of employees not in the IT department to self-report issues and create tickets. A future goal of this project is to provide all employees the option of self-reporting issues, and locating documentation hosted by this system, giving agency employees an additional means of seeking technical support.

This application was implemented entirely with open source software and resulted in no cost to the agency for software, licensing or outside support.

PUBLIC INFORMATION /EDUCATION REPORT FY06

GENERAL OVERVIEW

The purpose of the public information/education program is to provide leadership and coordination of information/education programs relating to the agency and district programs, services, operations and resources. The TSSWCB prepares and disseminates public information relative to the agency and district functions, programs, events and accomplishments for the public and to farmers and ranchers. TSSWCB staff coordinates seminars, conferences, workshops, displays at trade shows and training for district directors and district bookkeepers, conservation professionals, youth groups and other entities. Staff provides guidance to districts with their own individual information/education programs as well as regional and state information/education programs initiated by districts. Staff prepares and disseminates press releases, news stories and printed promotional products. The TSSWCB monitors the use of the publications and use of information. Staff represents the agency as needed with various information/education groups and entities. The TSSWCB has a cooperative agreement with the

Association of Texas Soil and Water Conservation Districts to provide assistance and help coordinate district involvement and participation with Association's Information/Education Committee and its programs.

2006 SUMMER TEACHER WORKSHOPS

Several teacher workshops are held each summer for teachers interested in conservation and natural resource issues. The workshops are held in various parts of the state in cooperation with the TSSWCB. The Texas Environmental Education Advisory Committee to the Texas Education Agency approves the content of these workshops, sponsored by the TSSWCB. As an approved Environmental Education Professional Development Provider teachers are able to get credit hours toward their required continuing education units (CEUs), while experiencing nature and the outdoors.

Pedernales SWCD hosted a Teachers Workshop in Johnson City, Texas at the Franklin Family Ranch on June 13-15, 2006. Topics included grass management, soils, water cycle, plants in the Texas hill country, wildlife biology, and prescribed burning.

2006 TEXAS CONSERVATION AWARDS PROGRAM

Each year, the Texas State Soil and Water Conservation Board and the Association of Texas Soil and Water Conservation Districts co-sponsor the Texas Conservation Awards Program to recognize and honor those who dedicate themselves and their talents to the conservation and wise use of renewable natural resources. The 2006 Awards Program marked the 28th year of this joint program.

Local districts select their outstanding individuals as winners and submit them by mid-February each year for regional judging. Those selected as regional winners are honored each May at regional Awards Banquets. From these regional winners, a state winner is selected for the Outstanding Conservation Districts, Outstanding Conservation Teacher, Poster Contest, and the Essay Contest. These individuals are invited to the Annual State Meeting for recognition.

The conservation awards program provides competition and incentives to expand and improve conservation efforts, resource development, and increase the wise utilization of renewable natural resources. As a result, soil and water conservation districts, and both rural and urban citizens of Texas are benefited.

Soil and water conservation districts may enter their local recognition honorees in any of 10 categories (East Texas has an additional category of Forestry Conservationist), depending on appropriateness to the category description. For the youth of the district, there is also a poster and essay contest. The categories and a brief description of each are:

OUTSTANDING CONSERVATION DISTRICT

Awarded to the winning soil and water conservation district in each area for the most outstanding program during the past fiscal year.

RESIDENT CONSERVATION RANCHER

Awarded to the outstanding resident conservation rancher in each area. They **must** be a resident of the district, perform ranching activities within the district and be a cooperator with the district from which the entry was submitted. The rancher may have other business or professional interests.

RESIDENT CONSERVATION FARMER

Awarded to the outstanding resident conservation farmer in each area. They **must** be a resident of the district, perform farming activities within the district and be a cooperator with the district from which the entry was submitted. The farmer may have other business or professional interests.

ABSENTEE CONSERVATION FARMER/RANCHER

Awarded to the outstanding absentee conservation farmer or rancher in each area. They **must** reside **outside** the district, but operate farming or ranching activities within the district and be a cooperator with the district from which the entry was submitted. The person may have other business or professional interests.

WATER QUALITY MANAGEMENT PLAN

Awarded to the outstanding Water Quality Management Plan recipient in each area. They **must** be a district cooperator who has a district approved Water Quality Management Plan and has incorporated water quality into their farming or ranching activities and soil and water conservation work.

ESSAY CONTEST –TWO CATEGORIES (THOSE 13 AND UNDER AND THOSE 14 TO 18 YEARS OF AGE)

Essays (topic: "Celebrate Conservation") are to be submitted to local soil and water conservation districts for local judging. Each local district will judge the entries and submit three essays to the TSSWCB for competition on the area level. Plaques will be awarded to 1st, 2nd and 3rd place winners on the area level and state winners will be selected from the area winners. This contest is open to students, in two categories, one for those ages 13 and under, and the other category for those ages 14 to 18 years of age and does not jeopardize Texas University Interscholastic League eligibility.

POSTER CONTEST

Posters should address one of the following subjects: "Food for the Future" or "The Living Soil". Posters shall be submitted to local soil and water conservation districts for local judging. Each local district will judge the entries and submit three posters to the TSSWCB for competition on the area level. Plaques will be awarded to the 1st, 2nd and 3rd place winners on the area level and state winners will be selected from the area winners. This contest is open to students, 12 years and under, and does not jeopardize Texas University Interscholastic League eligibility.

BUSINESS/PROFESSIONAL INDIVIDUAL

Awarded to the outstanding man or woman in the business community who has rendered the most unselfish conservation service in each area. Representatives of the news media (radio, television, newspaper, magazines, etc) who contribute to or provide support for conservation shall also be considered eligible for this award. (This award is not for individual conservation practices or individuals who, because of employment, assist with or augment the work of the soil and water conservation district.)

CONSERVATION TEACHER

Awarded to the outstanding teacher of conservation in schools in each area. Teachers of all grade levels are eligible for this award.

WILDLIFE CONSERVATIONIST

Awarded to the outstanding wildlife conservationist in each area. They **must** be a district cooperator who has incorporated wildlife conservation into their farming and ranching activities.

CONSERVATION HOMEMAKER

Awarded to the outstanding conservation homemaker in each area. The homemaker and or family **must** own or operate a farm or ranch, be a district cooperator and have knowledge of the conservation programs being implemented.

CONSERVATION DISTRICT EMPLOYEE

Awarded to the outstanding soil and water conservation district employee who exhibits a degree of knowledge, skill, ability, and leadership that clearly results in superior job performance far above the basic requirements of the position.

FORESTRY CONSERVATIONIST (AREA IV ONLY)

Awarded to the outstanding forestry conservationist for the most outstanding farm forestry conservation program in the commercial forest areas of Texas. They **must** be a district cooperator or an individual who has implemented conservation practices on their land and has done missionary work for conservation and the district program.

SOIL & WATER STEWARDSHIP PUBLIC SPEAKING CONTEST

The Soil & Water Stewardship Public Speaking Contest is open to high school FFA students interested in conservation. The contest is aimed at broadening students' interest and knowledge of conservation and how individuals must depend on and take care of the world around them for survival. The contest is coordinated through the Texas FFA, with contests at the local, area and state level. Local winners compete in the 10 state FFA areas and those winners compete for the state title. The theme of the 2006 contest is “Water Wise.”

To prepare for the contest, students were to consult with their Agriculture Science teacher and work with their local soil and water conservation district. Students are encouraged to visit with their local SWCD to find out more about conservation practices in their area.

This project is a partnership between the Texas FFA, the Vocational Agriculture Teacher's Association of Texas, The Texas State Soil and Water Conservation Board, and the Association of Texas Soil and Water Conservation Districts. The State Winner of the Soil and Water Stewardship Public Speaking Contest is invited to attend the Annual State Meeting each year and asked to deliver their winning address.

WILDLIFE ALLIANCE FOR YOUTH

The Wildlife Alliance for Youth (WAY) contests offer opportunities at the local district level for 4-H and FFA students to demonstrate their knowledge of the outdoors on wildlife habitat and management, wildlife laws, sportsmanship and other factual information on wildlife. The program offers scholarships to contest winners. It is a powerful tool for students to become involved in conservation and obtain an appreciation for wildlife.

Agriculture Science students, who compete in the WAY Contest, first acquire the foundational knowledge and skills for this event through the Agscience 381 - Wildlife and Recreation Curriculum. The WAY contests address the following nine subject areas in Wildlife and Recreation Management: Wildlife Plant Identification; Wildlife Plant Preferences; Wildlife Biological Facts; Wildlife Habitat; Habitat Management; Game Laws; Hunter and Boater Safety; Compass and Pacing; and Identification Techniques. Students should have an understanding of these subject areas before they compete.

The WAY contests are held in the five Texas State Soil and Water Conservation Board areas. Area IV (East Texas) holds their contest in the fall. Area V (North Central), Area I (Panhandle), Area II (West Texas) and Area III (South Texas) all hold their contests in the spring. Each team is certified to the area level by their local SWCD. The WAY State Contest is held each year in one of the geographical areas of the state. About 600 high school students participate in the statewide competition.

The TSSWCB is the lead agency in sponsoring and organizing the contests. The Association of Texas Soil and Water Conservation Districts, USDA- Natural Resources Conservation Service, Texas Parks and Wildlife Commission, Cooperative Extension service, and the Texas Education Agency, along with local soil and water conservation districts (SWCD), all partner in the success of the youth organization.

STATE WOODLAND CLINIC AND CONTEST

The Texas State Woodland Clinic and Contest is held annually in the month of April. It is a joint effort between local soil and water conservation districts, Stephen F. Austin University School of Forestry and the NRCS-USDA.

The contest is an opportunity for 4-H and FFA youth to demonstrate their expertise in different aspects of forestry management and skills in identification of needed practices and management techniques. Competition is between teams composed of four members representing either a 4-H Club or a FFA Chapter. Prior to the state contest several local districts conduct contests for 4-H Clubs and FFA Chapters within their district and the surrounding area.

The contest began in the late 1950s and was initiated by local SWCDs and timber industry personnel to develop forestry and woodland curriculum in schools in the commercial timber area of the state (East Texas Piney Woods). The clinic and contest have experienced widespread popularity and now has participation from outside of the commercial timber area on a regular basis. The state participation level for teams averages around 55 teams per year, with the vast majority of teams being composed of FFA Chapters. Winners at the state level are eligible to participate in the four states regional woodland contest held each May in one of four states. Texas, Louisiana, Arkansas and Oklahoma host the regional contest on a rotational basis.

REGIONAL WOODLAND CONTEST

The four states regional woodland contest is sponsored by soil and water conservation districts in each of the four states with program and technical support provided by USDA-NRCS and Resource Conservation and Development (RC&D), state organizations and industry personnel. The soil and water conservation districts in Texas hosted the first four states or southern regional woodland contest in 1984.

Each state is allowed to send a maximum of six teams to the regional contest. Each state has a competition that determines the six teams from that state that may enter in the regional contest. Those teams may be composed of individuals representing either a 4-H Club or an FFA Chapter.

CONSERVATION EDUCATION VIDEO LIBRARY

The Association of Texas Soil and Water Conservation Districts has established and updates a conservation related video library that is maintained by TSSWCB staff on their behalf for the benefit of local districts and educators. Currently there are 194 conservation-related videos in the library available to districts and teachers. No rental fees are assessed to those wishing to borrow the videos from the library. Borrowing privileges are for a length of two weeks and must be returned upon date specified by the librarian. Videos can be ordered through your local soil and water conservation district or by contacting the TSSWCB. From January to June, there have been 52 videos of various titles loaned out to districts and teachers across the state.

CONSERVATION EDUCATION MODELS

The Nonpoint Source Pollution Watershed Flow Model and the Groundwater Flow Model allow students to understand how water supplies can become polluted from nonpoint sources through interactive demonstrations.

NONPOINT SOURCE (NPS) POLLUTION WATERSHED FLOW MODEL

The NPS model is a hands-on representation of a landscape that allows students to understand how water sources can become polluted from nonpoint sources. The plastic landscape structure has industrial, undeveloped, agricultural, and residential and roadway features complete with individual houses, trees, cars, tractors and cows. When "rain" falls on the model, the runoff flows into a city lake. Using various products to add color to the water, the model demonstrates how potential pollutants are picked up by run-off.

The model is a layout of a watershed that includes all the factors that may contribute to polluting our water. (Urban features such as: factories, parking lots, construction sites, lawn chemicals and golf courses and Rural features such as: forested land, dairies, feedlots, cropland and pastureland). To demonstrate how each type of potential pollutant can enter a water body Kool-Aid and cocoa are used to color “runoff”. Grape Kool-Aid is used to represent pollution from factories and oil from parking lots and roads. Orange Kool-aid represents pollution from lawn chemicals, golf courses, and cropland and pastureland chemicals. Cocoa is used to represent pollution from construction sites, forested land, dairies and feedlots. The Kool-aid and Cocoa are sprinkled on the model in the areas that represent each type of pollutant. Once all the pollutants are sprinkled on the model a spray bottle with water is use to represent rainfall. As the pollutants get wet and start to runoff the students can see how the water carries them to the streams and into the lake where we get our drinking water. Once all the pollutants have run into the

lake the students can see how these factors have the potential to make surface waters unattractive and unsafe. This demonstration leads to a discussion about how to protect the water quality and prevent our water from looking like the model.

GROUNDWATER FLOW MODEL

This model shows a cross-section of soil layers with a lake, a lagoon, and several wells represented. It uses a vacuum pump to make the water move through the soil layers and injection dyes to help visualize the flow of groundwater though soil and demonstrates how pollutants can travel in groundwater. The model demonstrates both percolation and the movement of groundwater due to pumping. Accompanied by an instructional video with tips on the setup, presentation and cleanup, the model is useful and easy to use.

FISCAL YEAR 2006
EXPENDITURES AS OF MAY 30, 2006

	SWCD ASSISTANCE	BRUSH PROGRAM	319 GRANT PROGRAM	503/POULTRY PROGRAM	INDIRECT ADMIN.	TOTAL
Salary and Wages	$ 481,879	$ 130,511	$ 220,398	$ 898,211	$ 236,230	$ 1,967,229
Other Personnel	$ 18,000	$ 2,200	$ 5,791	$ 23,138	$ 12,170	$ 61,299
Professional Fees	$ -	$ -	$ -	$ -	$ 16,000	$ 16,000
Fuel and Lubricants	$ -	$ 4,275	$ 628	$ 16,924	$ -	$ 21,827
Consumables	$ 2,802	$ 837	$ 5,478	$ 8,404	$ 1,191	$ 18,712
Utilities	$ 10,399	$ 3,350	$ 948	$ 15,114	$ 2,829	$ 32,640
Travel	$ 104,490	$ 12,979	$ 19,318	$ 35,303	$ 34,431	$ 206,521
Rent - Building	$ 14,023	$ 9,712	$ 9,707	$ 79,971	$ 6,701	$ 120,114
Rent - Machine	$ 3,226	$ 883	$ 1,638	$ 15,004	$ 1,796	$ 22,547
Other Operating	$ 32,331	$ 5,471	$ 618,319	$ 65,696	$ 8,028	$ 729,845
Grants	$ 1,989,164	$ 318,009	$ 2,186,631	$ 712,809	$ -	$ 5,206,613
Lapse	$ -	$ -	$ -	$ -	$ -	$ -
Total	$ 2,656,314	$ 488,227	$ 3,068,856	$ 1,870,574	$ 319,376	$ 8,403,347

Attachment 1

Ongoing Clean Water Act, §319(h) Grant Program Projects

	Title	Description	Lead	Start	End	Federal
00-01	Administration of the FY2000 CWA Section 319(h) Agricultural/Silvicultural NPS Management Program	Administer/manage the FY00 CWA 319(h) cooperative agreement between EPA and TSSWCB. Coordinate with project cooperators on administrative related issues and manage the financial aspects of each contract.	TSSWCB		2 /1 /2007	$151,477
00-02	Statewide NPS Pollution Management Project	Provide technical assistance for FY00 CWA 319(h) agricultural and silvicultural projects and ensure that projects meet all technical requirements and are successfully completed in a timely fashion.	TSSWCB		2 /1 /2007	$246,972
01-01	Administration of the FY2001 CWA Section 319(h) Agricultural/Silvicultural NPS Management Program	Administer/manage the FY01 CWA 319(h) cooperative agreement between EPA and TSSWCB. Coordinate with project cooperators on administrative related issues and manage the financial aspects of each contract.	TSSWCB		4 /1 /2008	$243,674
01-02	Statewide NPS Pollution Management Project	Provide technical assistance for FY01 CWA 319(h) agricultural and silvicultural projects and ensure that projects meet all technical requirements and are successfully completed in a timely fashion.	TSSWCB		4 /1 /2008	$308,390
01-15	WQMP Initiative for the Pork Industry	This objective of this project is to determine the steps needed to assist unpermitted nonpoint source pork producers in meeting the requirements of the Texas Water Code and Texas Administrative Code §321.47 through the successful development of water quality management plans (WQMPs) certified in accordance with Texas Agriculture Code §201.026. The project will consist of the development, implementation, and demonstration of WQMPs containing cost-effective alternative manure and wastewater storage facilities on two pork operations chosen by the Texas Pork Producers Association (TPPA).	TPPA	2 /3 /2006	8 /31/2006	$21,000
01-16	Environmental Regulatory Oversight	To provide the Texas State Soil & Water Conservation Board guidance and assistance related to state/federal environmental requirements for unpermitted animal feeding operations	TAMU - Eco-Environmental Services	2 /28/2006	2 /28/2007	$103,362

	Title	Description	Lead	Start	End	Federal
01-17	Extending TMDL Efforts in the NBR Watershed	This project will provide storm and routine monitoring of tributaries that contribute nonpoint source loadings to an impaired water body in order to assess agricultural NPS reductions. A final report will be developed assessing preexisting and post-TMDL implementation effects.	TIAER	3 /31/2006	3 /30/2008	$441,755
01-18	Seymour Supplemental	The main goal of this project is to demonstrate management practices that mitigate nitrate movement in the soil within the Seymour Aquifer region. This project will generate and extend new knowledge to enhance Best Management Practices (BMPs) for nutrient and irrigation management within the Seymour Aquifer through establishment of a subsurface drip irrigation system at the Chillicothe Research Station. This project will also provide additional resources for quantifying and verifying the effectiveness of BMP implementation in reducing nitrate levels within the aquifer.	TWRI	3 /15/2006	4 /1 /2007	$83,254
01-19	ENVIROCAST	The project Envirocast®: Increasing Nonpoint Source Pollution Prevention through Watershed Awareness in the Upper Trinity River Watershed will introduce environmental news and information at the local level specifically designed to raise citizen's understanding, appreciation, and treatment of environmental issues at the watershed scale. The project is expected to make environmental science accessible to a significantly greater audience than any previous education program in the North Central Texas region and the Upper Trinity River Watershed	NCTCOG	3 /1 /2006	3 /1 /2007	$390,000
01-20	TSSWCB NPS Team Support	Provide technical assistance for FY01 - FY05 (and beyond) CWA 319(h) agricultural and silvicultural projects and to ensure that the projects meet all technical requirements and are successfully completed in a timely fashion.	TSSWCB	3 /1 /2006	3 /1 /2007	$42,400
01-21	Maintaining Sediment Prevention through Repair of Floodwater-retarding structures in McCulloch County	To provide coordinated assessment between the TSSWCB, the McCulloch SWCD, and USDA-NRCS, with respect to implementation, and restoration of water quality in the Brady Creek and Deep Creek Watersheds located within McCulloch County. Repair floodwater-retarding structures in McCulloch County. To compile information on the repair success concerning the floodwater-retarding structures.	McCulloch SWCD	5 /1 /2006	1 /31/2008	$338,398

	Title	Description	Lead	Start	End	Federal
02-01	Administration of the FY2002 CWA Section 319(h) Agricultural/Silvicultural NPS Management Program	Administer/manage the FY02 CWA 319(h) cooperative agreement between EPA and TSSWCB. Coordinate with project cooperators on administrative related issues and manage the financial aspects of each contract.	TSSWCB		4 /1 /2009	$304,132
02-02	Statewide NPS Pollution Management Project	Provide technical assistance for FY02 CWA 319(h) agricultural and silvicultural projects and ensure that projects meet all technical requirements and are successfully completed in a timely fashion.	TSSWCB		4 /1 /2009	$311,290
02-05	Little River Atrazine Remediation	Project will provide corn & sorghum producers in the Little River watershed with an opportunity to participate in water quality educational activities, technical assistance, and financial assistance for implementation of BMPs, to reduce atrazine runoff.	Central Texas SWCD	4 /9 /2002	8 /31/2007	$483,482
02-06	Little River Atrazine Remediation	Project will provide corn & sorghum producers in the Little River watershed with an opportunity to participate in water quality educational activities, technical assistance, and financial assistance for implementation of BMPs, to reduce atrazine runoff.	Little River - San Gabriel SWCD	4 /29/2002	12/31/2006	$328,482
02-11	Phosphorus Index	Determine the effects of selected soil properties on measured and predicted P runoff. Compare and correlate different soil test & soil solution extractable P levels to runoff P. Validate and/or modify the TX P Index as a predictive tool for classification of field sites relative to P loss potential.	TCE	9 /27/2002	3 /31/2007	$203,178
02-12	Three - Technicians	Three technicians will work under the direction of SWCDs, with assistance when needed from the TSSWCB regional offices, and NRCS to assist landowners in the development, implementation, &/or maintenance of WQMPs/BMPs. Technicians will be placed in three SWCDs and will work in adjacent SWCDs through cooperative agreements between the participating SWCDs.	Southmost, Shelby & Ellis-Prairie SWCD's	9 /11/2002	3 /31/2007	$695,389
02-13	Oso Creek/Oso Bay Watershed Implementation Assistance	Technical assistance will be provided by Nueces SWCD and TSSWCB Harlingen Regional Office to landowners within Oso Creek/Oso Bay Watershed to develop and implement WQMPs within the watershed.	Nueces SWCD & TAMU AREC (CC)	12/1 /2002	12/31/2006	$544,302

	Title	Description	Lead	Start	End	Federal
02-15	Water Quality Information/Education	Development of newspaper articles, informational brochures/flyers, display exhibits and promotional materials that include both water quality and water conservation messages to increase public awareness.	TSSWCB	3 /31/2002	3 /31/2007	$135,000
02-20	Saltwater Revegetation	Demonstration project designed to show conservation practices and different seeding and mulching methods to establish best grass cover.	Young SWCD	5 /4 /2005	3 /31/2007	$15,060
03-01	Administration of the FY2003 CWA Section 319(h) Agricultural/Silvicultural NPS Management Program	Administer/manage the FY03 CWA 319(h) cooperative agreement between EPA and TSSWCB. Coordinate with project cooperators on administrative related issues and manage the financial aspects of each contract.	TSSWCB		5 /3 /2010	$154,231
03-02	Statewide NPS Pollution Management Project	Provide technical assistance for FY03 CWA 319(h) agricultural and silvicultural projects and ensure that projects meet all technical requirements and are successfully completed in a timely fashion.	TSSWCB		5 /3 /2010	$245,109
03-04	Texas Silviculture BMP Effectiveness Study	Project will serve to quantify improvements in the quality of surface water in East Texas. Established TSSWCB WQMP Program will continue as part of this project to increase coordination among all entities involved.	TFS	7 /6 /2003	9 /30/2006	$367,620
03-05	Sam Rayburn WQMP Implementation Supplemental	Provide financial assistance to landowners for development/implementation of WQMPs. Foster coordinated technical assistance activities in Sam Rayburn Reservoir and Toledo Bend Reservoir watersheds between TSSWCB, SWCD, NRCS, and other interested individuals. Compile info. On the location/types of BMPs for WQMPs implemented.	Shelby SWCD	7 /1 /2003	3 /31/2007	$350,000
03-06	E.V. Spence Saltcedar	Provide technical and financial assistance toward implementation of targeted brush control activities for the purpose of reducing NPS loadings from saltcedar in the E.V. Spence Reservoir.	TSSWCB	11/1 /2003	3 /31/2007	$2,208,446
03-07	Bacteria Monitoring for Buck Creek	Monitor water quality as related to bacterial NPS pollution in Buck Creek by in-stream water sampling to facilitate TMDL definitions and guidance if needed.	TWRI	11/18/2003	3 /31/2007	$247,198

	Title	Description	Lead	Start	End	Federal
03-08	Nitrate Impacts in Groundwater	Project will design and implement a cover crop demonstration using three different winter cover crops and one bare soil.	TCE	11/24/2003	4 /30/2007	$98,341
03-09	Central Texas WQMP Implementation Supplemental	Project will provide additional funding for the ongoing implementation efforts in the Little River watershed. TSSWCB projects (02-5 & 02-6) entitled Central Texas Atrazine Remediation Project.	Little River - San Gabriel & Central Texas SWCD	10/31/2003	8 /31/2007	$424,080
03-10	Technologies for Animal Waste Pollution	Proposal provides for testing of new technologies designed for reducing water pollution associated with animal production systems, principally dairies. Focus is restricted to reducing P in dairy waste streams.	TWRI and BAEN	11/24/2003	3 /31/2007	$227,793
03-11	Leaf Beetle Demonstration	Project will demonstrate the usefulness of biologically treating saltcedar in the Colorado River Basin in an effort to reduce NPS pollution loadings resulting from saltcedar on agricultural lands.	ARS-USDA	1 /15/2004	3 /31/2007	$99,246
03-12	Navarro WQMP Implementation Supplemental	Project will provide additional funding for the ongoing implementation efforts in the Richland-Chambers Reservoir watershed. TSSWCB F321projects (00-5) entitled North Central Texas Atrazine Remediation Project.	Navarro SWCD	12/10/2003	10/31/2006	$430,279
03-14	Edge of Field Monitoring	Project will monitor and evaluate the P reduction capabilities of a state of the art methane digester installed on a dairy facility in the North Bosque River watershed operating in conjunction with a CNMP.	BRA	11/18/2003	1 /31/2008	$96,081
03-15	Reducing Atrazine Losses in Central TX	Demonstrate effects of alternative tillage practices & atrazine application practices on protecting water quality by reducing atrazine losses; validate simulation model with measured atrazine losses.	TCE	11/24/2003	3 /31/2007	$101,271
03-16	Atrazine Modeling	Purpose of project is to determine, using a watershed model (SWAT), effects of applying BMPs on atrazine loadings to streams, rivers, and lakes in 7 watersheds.	NRCS-WRAT	3 /30/2004	11/30/2006	$158,400

	Title	Description	Lead	Start	End	Federal
03-18	Bosque Watershed Coordinator	Objectives include identifying and tracking progress of all pollution prevention projects and measures that are currently underway, tracking rules & regulations that affect operations of entities in the watershed, reviewing water quality data for trend I.D., providing opportunities for efficient/effective use of resources.	BRA	12/3 /2003	3 /31/2007	$190,815
04-01	Administration of the FY2004 CWA Section 319(h) Agricultural/Silvicultural NPS Management Program	Administer/manage the FY04 CWA 319(h) cooperative agreement between EPA and TSSWCB. Coordinate with project cooperators on administrative related issues and manage the financial aspects of each contract.	TSSWCB		6 /1 /2011	$154,220
04-02	Statewide NPS Pollution Management Project	Provide technical assistance for FY04 CWA 319(h) agricultural and silvicultural projects and ensure that projects meet all technical requirements and are successfully completed in a timely fashion.	TSSWCB		6 /1 /2011	$375,231
04-03	Athletic Field Topdressing as a Commercial Market for Compost from Dairy Manure (Field of Dreams Project)	Overall project goal: Gain commercial acceptance of blend of compost and sand for topdressing of athletic fields through demonstration on athletic fields.	Leon-Bosque RC&D	8 /4 /2004	3 /31/2007	$300,000
04-04	Field Validation of the Texas P Index in the Poultry Areas of Texas	Effects of selected soil properties in Sam Rayburn Reservoir and Lake O' the Pines watersheds and other poultry producing areas of the state in East & South Central Texas to measure & predict P runoff and compare and correlate Mehlich III and soil solution soluble P extracts to runoff P.	TCE	8 /18/2004	8 /31/2007	$390,657
04-05	Creekside Conservation Program	Protect Central Texas Highland Lakes by providing technical/financial assistance to landowners through the LCRA's Creekside Conservation Program. Assess NPS reductions resulting from Creekside Conservation Program.	LCRA	8 /3 /2004	8 /31/2007	$507,300
04-06	Modeling Nutrient Loads from Poultry Operations in the Toledo Bend & Sam Rayburn Reservoir Watersheds	Collect GIS, land use, management, and measured data for selected watersheds. Where measured data is available, calibrate SWAT watershed model to measured flow, sediment and nutrients. Simulate nutrient load for current, pre and post conditions.	NRCS-WRAT	4 /11/2005	3 /31/2008	$96,000

	Title	Description	Lead	Start	End	Federal
04-07	Technical Assistance and Implementation in West Fork of the Trinity River Watershed	Provide technical assistance to landowners in developing and implementing WQMPs within the West Fork of Trinity River Watershed.	Jack SWCD	8 /12/2004	8 /31/2007	$100,000
04-08	WQMP Implementation Assistance in Falcon Reservoir Drainage Area in Zapata Co.	Coordinate technical assistance activities in the Falcon Reservoir Drainage Area in Zapata County between TSSWCB, SWCD, NRCS, & Kika De La Garza PMC. Inventory & map land uses & current mgmt. practices within the targeted watershed. Provide technical/financial assistance to landowners to aid in development/implementation of WQMPs.	Zapata SWCD	8 /17/2004	8 /31/2007	$461,290
04-09	Seymour Aquifer Water Quality Improvement	The main goal of this project is reduce the nitrate levels in the Seymour Aquifer. Project will provide irrigators in Haskell, Knox, and Jones counties with opportunity to participate in water quality educational activities, technical assistance, financial assistance for implementation of BMPs, in order to improve water quality in Seymour Aquifer.	Haskell, Knox and Jones SWCD	8 /19/2004	8 /31/2007	$764,054
04-10	Phytoremediation of excessively high phosphorus soils and subsequent reduced P runoff into North Bosque River	General objective of this project is to reduce surface water contamination in the north Bosque River from soil-applied P of dairy manure origin.	TAES - Stephenville	8 /30/2004	8 /31/2007	$238,859
04-11	Watershed Protection Plan Development for the Pecos River	Assess the Pecos River Basin and increase landowner and stakeholder involvement through educational efforts. Watershed Protection Plan based on the river basin assessment.	TWRI	8 /25/2004	8 /31/2007	$709,381
04-12	Little Wichita River Watershed Protection Plan	Project will provide assessment of existing and potential water quality problems associated with NPS pollution in the Little Wichita River Basin & provide watershed plan to improve and protect water quality within the basin.	TIAER	8 /15/2004	8 /31/2007	$90,090
04-13	Development of a Watershed Protection Plan for the Concho River Basin	Project will provide assessment of existing and potential water quality threats related to on-going NPS water pollution within the Concho River basin and will also provide a Watershed Protection Plan.	UCRA	8 /25/2004	8 /31/2007	$375,240

	Title	Description	Lead	Start	End	Federal
04-14	Assessment and Mitigation of Agricultural and Other NPS Activities in the Cypress Creek Basin.	Northeast Texas Municipal Water District Assessment Project and On-Site Sewage System Replacement Program. Primary goal of project is evaluate effectiveness of selected BMPs in reducing nutrient inputs to Big Cypress Creek and Lake O' Pines by documenting runoff quality from sites representing dominant soil & land use types, with/out BMPs. Implemented/replace failing septic systems.	NETMWD	8 /3 /2004	3 /31/2007	$442,805
04-15	Mathematical Model for Dispersal of Leaf Beetle, *Diorhabda elongata* from Old World released in U.S. for Biological Control of Invasive Saltcedar	Goal of project is aid in Implementation Plan for Sulfate and Total Dissolved Solids (TMDLs) in the J.B. Thomas, E.V. Spence and O.H. Ivey Reservoirs by biological control of saltcedar in riparian areas along the Colorado River of Texas and its tributaries.	ARS-USDA	10/27/2004	8 /31/2007	$136,724
04-16	Nueces Basin Headwaters Stewardship Project	Using public education, project will concentrate on water quality concerns, impairments, and threats to water quality and streambed conditions in five headwater stream segments of the Nueces River Basin.	NRA	9 /1 /2004	8 /31/2007	$170,703
04-17	T-STAR	The purpose of this project is to develop and test in a pilot watershed the educational component of the T-STAR Program which provides agricultural producers and allied industry with a combination of production and environmental training.	TCE	2 /24/2005	8 /31/2007	$440,503
04-18	BMP Verification in Richland-Chambers Watershed	Verify effectiveness of nutrient load reduction BMPs in the Richland-Chambers watershed.	TAES(BRC)	8 /1 /2005	7 /1 /2008	$237,722
04-19	Regional Watershed Coordinator	Successfully facilitate and coordinate watershed planning activities in the Wharton Regional Office service area through a pilot project.	TSSWCB		8 /31/2007	$145,249
05-01	Administration of the FY2005 CWA Section 319(h) Agricultural/Silvicultural NPS Management Program	Administer/manage the FY05 CWA 319(h) cooperative agreement between EPA and TSSWCB. Coordinate with project cooperators on administrative related issues and manage the financial aspects of each contract.	TSSWCB		9 /1 /2011	$104,480
05-02	Statewide NPS Pollution Management Project	Provide technical assistance for FY05 CWA 319(h) agricultural and silvicultural projects and ensure that projects meet all technical requirements and are successfully completed in a timely fashion.	TSSWCB		9 /1 /2011	$310,426

	Title	Description	Lead	Start	End	Federal
05-03	Ellis Prairie SWCD Project	Provide technical/financial assistance to qualifying producers on appropriate BMPs to reduce sediment, nutrient, and pesticide runoff and provide water quality educational events.	Ellis-Prairie SWCD	8 /1 /2005	8 /31/2008	$433,700
05-04	Silvicultural NPS Abatement	This project will reduce significant risks to water quality from silvicultural NPS pollution by implementing BMPs and increasing silvicultural NPS awareness by completing a statewide evaluation of silvicultural BMP implementation, providing technical assistance, education, coordination, and monitoring the effectiveness of forestry BMPs.	TFS	9 /1 /2005	8 /31/2008	$574,521
05-05	Watershed Education	The purpose of this project will be to develop and deliver an educational curriculum which functions to support the TSSWCB's effort to prepare a Watershed Protection Plan in the target watershed.	TWRI-TCE	9 /1 /2005	8 /31/2008	$358,041
05-06	PLAN	To educate 3rd party applicators of poultry litter to the environmental benefits of using proper application management techniques on new sites.	TCE	9 /1 /2005	8 /31/2008	$210,002
05-07	Impact of Proper Fertilizer	Implement fertilizer management practices on cultivated and pasture fields to demonstrate the importance of using proper management relating to application method, timing, and rate, and conduct demonstration/educational activities on the importance of proper organic fertilizer management.	TCE	9 /1 /2005	8 /31/2008	$186,352
05-08	Peach Creek Project	Developing, implementing and maintaining WQMPs and provide technical assistance to agricultural producers in the Peach Creek watershed.	Gonzales SWCD	9 /1 /2005	8 /31/2006	$465,123
05-09	Lake Granger Project	The Brazos River Authority will facilitate the development of a Watershed Protection Plan for the Lake Granger Watershed. This project will also provide the Little River-San Gabriel and Taylor SWCDs with funding for technical/ financial assistance to implement BMPs through conservation planning.	BRA	9 /1 /2005	8 /31/2008	$814,168
05-10	Arroyo Education Project	Educate agricultural producers on how to better produce and manage their acreage and support and promote associated programs implementing BMPs related to water quality protection.	TWRI	9 /1 /2005	8 /31/2008	$103,959

	Title	Description	Lead	Start	End	Federal
05-12	Arroyo WQMP Project	Provide technical assistance to landowners to aid in the development and implementation of a minimum of 78 WQMPs in the Arroyo Colorado Watershed.	Hidalgo SWCD	9 /1 /2005	8 /31/2008	$970,478
05-13	Composting Support - DMES	Project will coordinate compost activities in Bosque and Leon watershed among all entities involved. Provide financial/technical assistance to offset costs of transporting raw manure to compost facilities. Continuation of 00-8 & 02-8.	TSSWCB	9 /1 /2005	9 /30/2006	$228,000

BRUSH CONTROL PROGRAM STATUS REPORT

GENERAL STATUS REPORTS

BACKGROUND:
The 79th Legislature continued funding for the State Brush Control Program by providing $1,874,176.00 in General Revenue Funds in FY06. These funds were directed to be used for continuation of brush control projects designated by the Soil and Water Conservation Board.

Watershed	Acres Under Contract	Unobligated Funds ($)	Treated Acres
North Concho	34,039	* $51,236.00	302,074
Pedernales	13,327	$0.00	57,208
Twin Buttes	76,564	* $44,632.00	178,829
Lake Ballinger	1,497	* $24,662.00	7,294
Oak Creek Lake	2,891	$22,800.00	16,055
Pecan Creek	0	$ -	11,982
Mountain Creek Lake	0	$ -	1440
Champion Creek	4,923	$ -	14,909
Spring Creek/Dove Creek	7,245	$ -	30,571
Pecos (Saltcedar)	8,931	$ 25,000.00	7,274
Upper Colorado (Saltcedar)	823	$ 25,000.00	823
		Total Acres Treated	*628,459*

* ***Unobligated funds contracted pending SWCD approval.***

Staff Activities

- Provided the following SWCD with Brush Program Updates or Brush Program Assistance

North Concho SWCD Nolan County SWCD Middle Concho SWCD

Eldorado-Divide SWCD Tom Green County SWCD

Mitchell County SWCD Pedernales SWCD

Runnels SWCD Gillespie County SWCD

Middle Clear Fork SWCD Devils River SWCD

Trans Pecos SWCD Crockett County SWCD

Midland SWCD Pecos County SWCD

- 10 Landowners assisted with Brush Contracts
- 27 Landowners assisted with Brush Certifications
- 5 Salt Cedar Certifications Reviewed
- 2 Salt Cedar Contracts and Conservation Plans Reviewed
- Work with landowners and contractors to research current cost on bush control
- Assisted with House Ag and Livestock Committee hearing
- Assisted with booth at the RC&D convention in Wichita Falls
- Assisted with Invasive Species Council meeting in Austin
- Assisted with Invasive Species Tour in Harlingen
- Assisted with Brochure for North Concho River Project
- Assisted Department of Interior with request for matching dollars on the Twin Buttes
  Basin Project
- Assisted with Booth at Texas Southwest Cattle Raisers Convention

TEXAS STATE SOIL & WATER CONSERVATION BOARD

SEMI - ANNUAL REPORT

TO THE

GOVERNOR,
LIEUTENANT GOVERNOR,
AND
SPEAKER OF THE HOUSE

JANUARY 1, 2007

Forward

In response to S.B. 1828 passed by the 78th Texas Legislature in Regular Session, 2003, the Texas State Soil and Water Conservation Board presents this review of its programs and activities. S.B. 1828 added §201.028 to the Texas Agriculture Code to provide that the TSSWCB shall prepare and deliver to the Governor, the Lieutenant Governor, and the Speaker of the House of Representatives a report, not later than January 1 and July 1 of each year, relating to the status of the budget areas of responsibility assigned to the State Board including outreach programs, grants made and received, federal funding applied for and received, special projects, and oversight of soil and water conservation district activities.

The FY06 Expected Expenditure Summary is attached to this report. Information on grants made to local districts and other entities is incorporated within the program section it involves. Federal grants received for the Clean Water Act are provided in that section.

Attached, as an addendum of this report, is the Brush Control Program 2005 Annual Report. Section 203.056, Texas Agriculture Code, requires the State Board, before January 31 of each year, to submit a report of the activities of the Brush Control Program during the immediately preceding year.

The Texas State Soil & Water Conservation Board takes pride in the accomplishments and remarkable progress that have been made in soil and water conservation in this state. Often environmental successes are slow to be realized. We have realized and already reported one success story that involves reducing the level of Atrazine in several water bodies, particularly the Aquilla Reservoir in the Hill County-Blackland SWCD.

However, we recognize there remains a continuing challenge and an ongoing need to ensure our land has the capability to produce food and fiber for future Texans. Because of changes in land use, ownership, technology, and population growth, the need for soil and water conservation programs will remain critical. Texas has a finite number of acres to provide for the needs and desires of citizens and visitors, and this places an ever-increasing demand on agricultural land. Farmers and ranchers face complex decisions concerning the best ways to manage and utilize the land available to them.

We believe that soil and water conservation programs must remain dynamic as land uses change and technology improves to make some conservation practices more capable of meeting demands on soil and water resources. We also maintain the belief that the purpose of the soil and water conservation program is to promote the wise use of our renewable natural resources and provide for the conservation and enhancement of the soil and water resources of this state through and by the dynamic decisions of local soil and water conservation districts which promotes the use of each acre of land within its capabilities and treating it according to its needs.

From the beginning, the Texas State Soil and Water Conservation Board and local soil and water conservation districts have formed an organizational framework through which various complex governmental conservation programs are delivered to local landowners and operators. This relationship has successfully been utilized to disseminate sound management techniques and practices to maintain individual productive land uses to provide for the needs of present and future generations.

To the landowners of Texas, the individual soil and water conservation district directors, and the many agencies and organizations assisting and working with our programs, we offer our sincere thanks.

Table of Contents

	Page
Historical Background	4
Organization	6
Staff	7
Soil and Water Conservation Districts	8
Annual State Meeting Of Soil and Water Conservation District Directors	10
Director Mileage and Per Diem	10
District Technical Assistance Funds	10
Agricultural Water Conservation Grant	10
District Conservation Assistance Program	11
Programs and Activities of the TSSWCB	11
Clean Water Act, §319(h) Grant Program	11
Total Maximum Daily Load (TMDL) Program	13
Watershed Protection Plan Program	15
Water Quality Management Plan (WQMP) Program	16
Poultry Water Quality Management Plan (WQMP) Initiative	18
North Bosque River Watershed Initiative	21
Dairy Manure Export Support (DMES) Program	21
Comprehensive Nutrient Management Plan (CNMP) Program	23
Texas Atrazine Initiative	23
Background	23
Development of the Texas Approach	24
Implementation of the Atrazine Initiative	25
Atrazine Initiative Results – A Success Story	26
Coastal Management Program	27
Background	27
Current Status	28
Information Technology	28
Public Information /Education Report	30
General Overview	30
2006 Summer Teacher Workshops	31
2006 Texas Conservation Awards Program	31
Soil & Water Stewardship Public Speaking Contest	33
Wildlife Alliance For Youth	34
State Woodland Clinic and Contest	34
Regional Woodland Clinic	35
Conservation Education Video Library	35
Conservation Education Models	35
Nonpoint Source (NPS) Pollution Watershed Flow Model	35
TSSWCB FY06 Budget Summary	Atch 1
Ongoing Clean Water Act, §319(h) Grant Program Projects	Atch 2
Brush Control Program 2006 Annual Report	Atch 3

Historical Background

In the early history of the United States, those involved in agriculture often did not consider the conservation of soil and water resources. Land was cleared and put into farm production. When the land quit producing at a profitable level, the farmers merely moved on to new land farther west and started the process over again. There was no need to be concerned with soil conservation, as there was a seemingly unlimited supply of virgin land waiting to be tilled. This process continued through the 1800s and into the early 1900s. With the outbreak of World War I, farmers in the Great Plains states were encouraged to break out native grassland to grow wheat and other foodstuffs to feed the nation and the world. As a result of these and other unwise management practices and the fact that the farmlands were experiencing long periods of drought, the 1930s produced some of the worst dust storms the nation had ever seen. Clouds of dust rolled across the plains states sending dust storms through the south and into the nation's capital. At the same time, the nation was in the midst of a great economic depression. The federal government, seeking ways to put people back to work and encourage conservation, created the Civilian Conservation Corps and Soil Erosion Service. Through these mechanisms, demonstration projects were initiated to train technicians and to educate the public in ways to conserve soil resources. These programs were successful in putting people back to work, but lacked the local ties to establish lasting conservation programs.

One of the early day leaders in the national effort to control soil erosion was Hugh Hammond Bennett from North Carolina. After graduation from the University of North Carolina in 1903, Hugh Bennett took a job with the Bureau of Soils in the United States Department of Agriculture. Because of his experience, scientific knowledge and leadership ability, he was put in charge of the Soil Erosion Service when it was created in 1933. In 1935, P.L. (Public Law) 46 was passed creating the Soil Conservation Service within the U.S. Department of Agriculture and Hugh Bennett became the first Chief of the agency. He soon became internationally known for his accomplishments in conservation work.

With the help of Congressman Buchannan from Columbus, Texas, Hugh Bennett was able to persuade President Franklin Roosevelt that the soil resources of this nation were being wasted. He convinced the President that a Model Soil Conservation Act should be developed and sent to the governors of each state for passage by their state legislatures. The purpose of this Model Act would be to develop programs at the state and local level to control soil erosion.

In 1936, such a Model Act was sent to the governors with the endorsement of President Roosevelt. The Model Act, developed in Washington, was patterned after the Texas Wind Erosion Act, the Grass Conservation Acts in the Northern High Plains and certain water conservation district law.

In 1937 legislation was introduced in the Texas Legislature based on this Model Act. It is reported that as many as 25 different versions of this soil conservation law were considered before a final version was passed. There was much heated discussion of the proposed legislation. When the final version was adopted, the bill contained many undesirable features. The law would have set up Soil Conservation Districts automatically on a county basis and made County Commissioners Courts the governing body. A portion of the county tax was to be used to finance the program and county agricultural agents were to be the administrative officers.

A number of agricultural leaders from across the state had, by this time, become concerned about the newly passed legislation. It was their opinion that, if the responsibility for installing and maintaining conservation measures lay in the hands of the land owners, the control of such a program should also be

in their hands. As a result of these and other concerns, a group of landowners led by V.C. Marshall of Heidenheimer, Texas, convinced the Governor to veto the 1937 legislation.

Hard feelings among agricultural leaders resulted from the attempt to pass this soil conservation law. Under the leadership of Mr. Marshall, a concerted effort was made during the interim between legislative sessions to heal the old wounds and to put together a version of a law that would be generally accepted by the farmers and ranchers of Texas. Mr. Marshall organized a committee of leaders from across the state to promote the passage of a new Soil Conservation Law. He traveled many miles at his own expense seeking the views of agricultural leaders and promoting the idea of the Soil Conservation District Program.

The key points Mr. Marshall felt should be included in the new law were that (1) farmers and ranchers should determine whether or not a Soil Conservation District was needed and hold a local option election prior to the establishment of the district; (2) the program should be controlled by landowners; and (3) the Soil Conservation Districts should have no taxing authority or the power of eminent domain.

In 1939 the Texas Legislature passed H.B. (House Bill) 20 which incorporated those features and was the first Soil Conservation Law for the state. The law created the State Soil Conservation Board and allowed for the creation of the Soil Conservation Districts. Mr. Marshall was elected as the first Chairman of the Soil Conservation Board and later resigned to become the first Executive Director of the agency.

On April 30, 1940, the Secretary of the State issued Certificates of Organization for the first 16 Soil Conservation Districts paving the way for the program we now operate. Today, Texas has 217 local soil and water conservation districts that encompass more than 99% of the state.

As previously mentioned, the Model Act endorsed by President Roosevelt was in part patterned after the Texas Wind Erosion Act. Texas was already making attempts to address soil conservation as a result of the "Dust Bowl" days of the 1930s. The 44th Legislature in 1935 passed legislation authorizing the establishment of Wind Erosion Conservation Districts. This law provided for the creation of districts to "conserve the soil by prevention of unnecessary erosion caused by winds, and the reclamation of lands that have been depreciated or denuded of soil by reasons of winds." Although a number of Wind Erosion Control Districts were created, the passage of the Soil Conservation District Law in 1939 resulted in those districts becoming dormant.

In 1975, Governor Dolph Briscoe, by Executive Order, designated the TSSWCB as lead agency to assume the planning and management responsibility for control of agricultural and silvicultural nonpoint source pollution as required by the Federal Water Pollution Control Act.

In 1981 the 67th Legislature passed H.B. 1436, which for the first time codified the agricultural laws of Texas. Title 7, Chapter 201 of this code contains the portion pertaining to Soil and Water Conservation.

In 1985 the 69th Legislature passed S.B. 1083 creating a Brush Control Program in Texas and granting new powers and responsibilities, without funding, to the TSSWCB and Soil and Water Conservation Districts under Chapter 203 of the Agriculture Code. In 1999, the TSSWCB received its first appropriation in the FY00-01 biennium to control water-depleting brush and trees, such as cedar and mesquite. The program received $9.1 million to establish a pilot project in the North Concho Watershed.

In 1993, the 73rd Legislature passed S.B. 503 which named the TSSWCB the lead agency to address water quality issues relating to runoff from diffused, or nonpoint sources resulting from agricultural and forestry operations. In 1999, the Legislature expanded the TSSWCB's environmental mission and appropriated money to address water pollution from nonpoint sources under a separate, federally mandated program.

The leaders who framed the Texas Soil and Water Conservation Law in 1939 recognized that landowners and operators of private land constitute the basic resource for the conservation of our renewable natural resources. Without the support and willing participation of private landowners and operators in the development and implementation of soil and water conservation programs there is little hope of success. Local soil and water conservation districts led by farmers and ranchers who know the land and the local conditions and problems have the means to develop conservation plans that address each acre of land specific to its needs to solve or reduce the severity of its problems.

Organization

Since inception, the TSSWCB has been governed by five board members, elected by delegates from each of five regions of the state's 217 local soil and water conservation districts. Elections occur annually at regional conventions of the local soil and water conservation districts, with members serving two-year staggered terms. However, with the enactment of S.B. 1828 by the 78th Legislature, two Governor appointees join the five elected board members to create a seven-member board. The two Governor appointed positions are listed below. The term of one member appointed by the Governor expires February 1 of each odd-numbered year, and the term of the other member appointed by the Governor expires on February 1 of each even-numbered year.

Elected State Board members must be 18 years of age or older; hold title to farmland or ranchland; and be actively engaged in farming or ranching. The Governor appointees must be actively engaged in the business of farming, animal husbandry, or other business related to agriculture and wholly or partly owns or leases land used in connection with that business; and may not be a member of the board of directors of a conservation district.

The State Board elects its own Chair and generally meets every odd month, unless specific programs or issues require more immediate action. The following list shows the current Board members and shows which State Board Region they represent.

Texas State Soil and Water Conservation Board

Member Name	Region	Term	Residence
Aubrey L. Russell	#1	May 3, 2005 – May 1, 2007	Panhandle
Reed Stewart	#2	May 2, 2006 – May 6, 2008	Sterling City
José O. Dodier, Jr.	#3	May 3, 2005 – May 1, 2007	Zapata
Jerry D. Nichols	#4	May 2, 2006 – May 6, 2008	Nacogdoches
W.T. "Dub" Crumley	#5	May 3, 2005 – May 1, 2007	Stephenville
Larry D. Jacobs	Appointed	June 20, 2005-February 1, 2006	Montgomery
Joe L. Ward	Appointed	June 20, 2005-February 1, 2007	Telephone

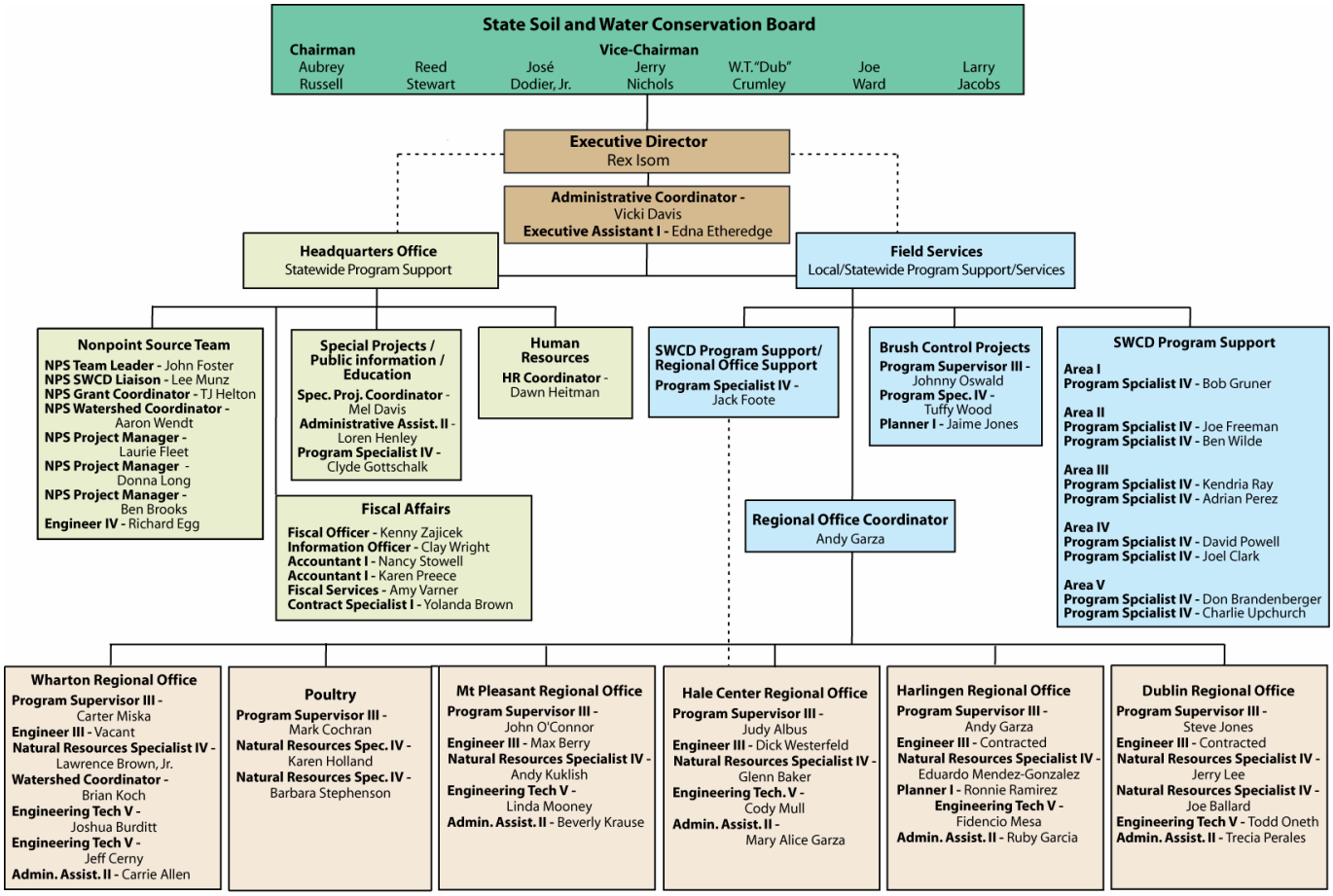
Staff

Mr. Rex Isom was named as the Executive Director in January 2004 and continues to carry out the directives of the State Board and directing staff efforts.
We emphasize our agency philosophy as stated in our Strategic Plan, "The State Soil and Water Conservation Board will act in accordance with the highest standards of ethics, accountability, efficiency, and openness. We affirm that the conservation of our natural resources is both a public and a private benefit, and we approach our activities with a deep sense of purpose and responsibility." Mr. Isom, as Executive Director, is leading the agency in that direction and expects all employees to follow that lead.

As of December 1, 2006 the TSSWCB employed 63 staff, 20 of which work in the Temple headquarters. The remaining employees are field staff, either working out of their homes or located in seven satellite offices; five regional offices and two program specific offices, located throughout the state. Due to difficulty in recruiting engineers, two field engineer positions remain contracted. The following organization chart shows the agency's current structure.

The current structure of the TSSWCB now reflects efforts to place more personnel in the field and away from headquarters for a 69% to 31% ratio of Field personnel to Headquarters personnel.

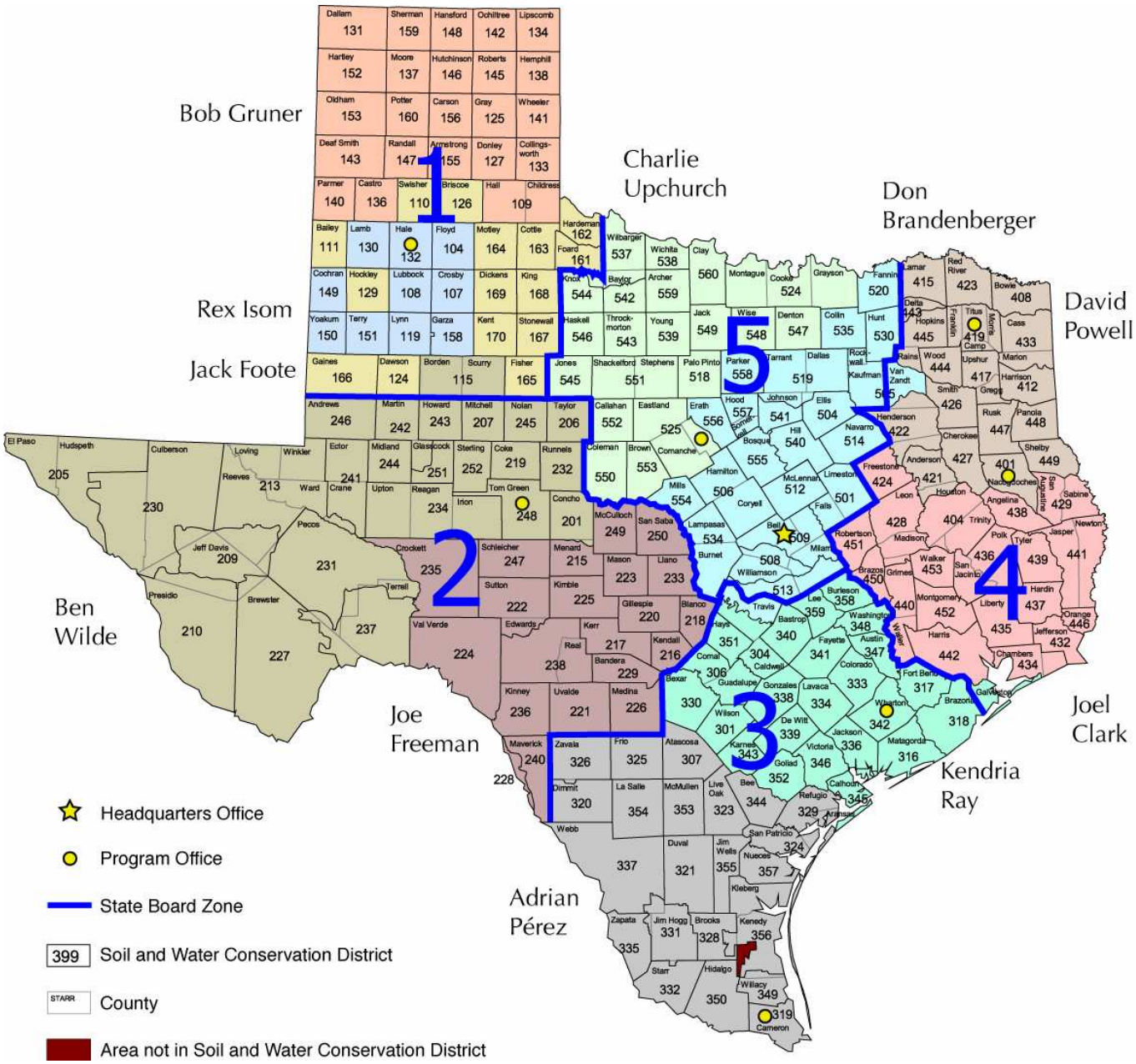
The regional office staff along with the program specific staff provides on-site technical assistance to farmers and ranchers. The field staff serves as a liaison between the TSSWCB and local districts. The field staff also provides assistance to local districts and district employees concerning operations, programs, and activities. The regional office staff and the program specific staff coordinates with the Texas Commission on Environmental Quality (TCEQ), Texas Cooperative Extension (TCE), and the USDA's Natural Resource Conservation Service (NRCS) to provide technical assistance to landowners to implement Water Quality Management Plans (WQMPs).



Soil and Water Conservation Districts

The TSSWCB performs many of its activities in coordination with the state's 217 local soil and water conservation districts. These local districts are political subdivisions of the state, established through local option elections of agricultural landowners. Districts generally reflect county boundaries, but may also follow river basin or watershed boundaries, depending on the desires of the local landowners.

The following soil and water conservation district map shows the current 217 local districts that cover almost the entire state. That portion of the state not in a soil and water conservation district is in Kenedy County and contains the privately owned King Ranch. The map also shows the grouping of the districts into the five State Board Districts that respectively elect a State Board member and shows the field staff that is assigned to work with each district within a specific area.



Landowners within these local districts elect the five district directors that comprise the districts governing body or board of directors. This board of directors administers the programs and activities of the district. Representatives of the districts within each region then elect the members of the State Board through a series of convention style-elections.

Districts do not have taxing authority and rely on locally generated funds from various activities and programs, federal assistance, county assistance, and state assistance from the TSSWCB. The USDA Natural Resource Conservation Service (NRCS) provides most of the federal assistance available to districts and through cooperative agreements provides technical assistance to farmers and ranchers requesting assistance from the district.

Annual State Meeting Of Soil And Water Conservation District Directors

The Annual State Meeting of Soil and Water Conservation District Directors, required in §201.081, Texas Agriculture Code, convened in Arlington last October. There were 98 districts represented, with 255 individual district directors that registered for the meeting. The total registration was 593.

For the 2007 calendar year, the state meeting is scheduled for October 22-24 in Waco.

Director Mileage And Per Diem

Due to the reductions in staff at the headquarters office, director mileage and per diem claims are now managed directly by districts. The TSSWCB sent each district 75% of their approved allocation (grant). The remaining 25% will be used as a pool for any expenses not covered through the initial allocation (grant). Field staff will approve each claim before payment to ensure claims are accurate and comply with state statutes and guidelines. The FY06 state appropriation for this program is $325,000.00.

District Technical Assistance Funds

The TSSWCB 2006-2007 Appropriation revised the allocation method for technical assistance funds. On September 1, 2005, the TSSWCB began disbursing technical assistance payments on a reimbursing basis only. The FY06 state appropriation for this program is $1,036,241.00.

Agricultural Water Conservation Grant

Subchapter H funds were appropriated to the TSSWCB from the Agricultural Soil and Water Conservation Account No. 563. Senate Bill 1053 enacted by the 78th Legislature moved the money that funded Account No. 563 to the TWDB. Account No. 563 no longer exists and funding for what was Subchapter H grants now comes from the TWDB in the form of competitive agricultural water conservation grants. The TSSWCB, on behalf of local soil and water conservation districts, applied to the TWDB for grant funding to continue the water conservation program previously supported by the subchapter H program. Soil and water conservation districts provide technical and planning assistance to agricultural producers for implementing conservation best management practices on their farms and ranches.

The TSSWCB received an agricultural water conservation grant of $115,000 from the TWDB for fiscal year 2004. The funds from the grant were allocated to eligible soil and water conservation districts to support technical assistance in planning agricultural water conserving best management practices on farms and ranches. Eligible best management practices were those that directly or indirectly produced water savings and those that reduced erosion, a cause of increased sedimentation of Texas' surface water reservoirs. The grant award of $115,000 supplemented approximately $950,000 in technical assistance funding allocated to local soil and water conservation districts for support of planning and implementing conservation best management practices on farms and ranches.

A total of 197 soil and water conservation districts statewide were eligible and willing to participate in this program. The assistance performed by these soil and water conservation districts has resulted in an

estimated 341,729 ac-ft potential water savings for the State or approximately 2.97 ac-ft of water conserved for each agricultural water conservation grant dollar spent.

The TSSWCB received a second grant of $100,000 in fiscal year 2005 under the program. In the second year, 195 soil and water conservation districts participated and achieved over 534,000 ac-ft of potential water savings.

District Conservation Assistance Program

District Conservation Assistance funds are appropriated to the TSSWCB from general revenue funds. Of the 217 local soil and water conservation districts, 216 districts request to receive an allocation (grant) from these funds. Local districts receive these funds as a dollar for dollar match for money that they generate locally through various activities. The local districts use this money to pay operational expenses. The FY06 state appropriation for this program is $916,364.00.

PROGRAMS & ACTIVITIES OF THE TSSWCB

The services and programs provided by the TSSWCB target rural Texas farmers and ranchers, but the results of these services benefit all Texans. For example, many of the flood control structures maintained by soil and water conservation districts serve to protect heavily populated areas from flood damage, and also prevent sediment from building up in suburban drinking water supplies. Another example is the use of best management practices, implemented through TSSWCB-certified water quality management plans, to prevent pesticides, nutrients, bacteria and other contaminants from impairing Texas waters.

The agency is responsible for numerous natural resource conservation efforts, the most prominent of which is serving as the lead state agency for the prevention, management, and abatement of nonpoint source pollution resulting from agricultural and silvicultural, or forestry-related, activities. As a result, the majority of the agency's programs and services aim to improve and protect water quality. The TSSWCB is also responsible for water conservation, or water quantity. The major existing program addressing water conservation is the Texas Brush Control Program, although the agency is conducting preliminary work on a new program that would provide assistance to Texas landowners who irrigate cropland from both ground and surface water sources. The Water Conservation Taskforce, created by Senate Bill 1094 from Senator Duncan, issued a final report to the Legislature recommending a state cost-share program be implemented through the TSSWCB to assist landowners in implementing best management practices that conserve water resources. If the agency is asked to fully develop the new program by the Legislature, it would likely be patterned after the Water Quality Management Plan Program created by Senate Bill 503 in 1993. Other responsibilities include prevention of soil erosion, control of floods, maintaining the navigability of waterways, the preservation of wildlife, protection of public lands, and providing information to landowners regarding the jurisdictions of the TSSWCB and the Texas Commission on Environmental Quality related to nonpoint source pollution. The TSSWCB has no regulatory functions; all of the agency's programs and services are voluntary in nature.

Clean Water Act, §319(H) Nonpoint Source Grant Program

Background

Congress enacted Section 319(h) of the Clean Water Act in 1987, establishing a national program to

control nonpoint sources of water pollution. Through Section 319(h), federal funds are provided through the EPA to states for the development and implementation of the State's Nonpoint Source Management Program. The 319(h) funding in Texas is divided evenly between the TCEQ and TSSWCB. The following report provides an overview of TSSWCB's 319(h) program status and major ongoing activities.

State Nonpoint Source Management Plan

An approved management plan is a requirement for receiving 319 Grant funding. Because the State's overall Nonpoint Source Program is jointly administered between the Texas Commission on Environmental Quality (TCEQ) and the TSSWCB, both agencies recently revised the Texas Nonpoint Source Management Program Report for the years 2005 through 2010. The report, which went through extensive public comment and review, was approved by the TSSWCB on September 15, 2005, and by TCEQ on October 26, 2005. The document was certified by the Attorney General's Office and was submitted by the Governor to the Regional Administrator for U.S. EPA Region 6 on December 15, 2005. The document was approved by U.S. EPA Region 6 on February 10, 2006.

Project Management

There are currently 66 ongoing 319 projects (Attachment 2). The $20 million provided to these projects through Clean Water Act, §319(h) Nonpoint Source Grants between 2000 and 2005 is being utilized to abate NPS pollution from poultry operations and dairies, runoff of atrazine from cropland, salt cedar, watershed planning, groundwater quality improvement, assessing sources of bacteria, educational programs for the forest industry, and many other projects (Figure 1). Quarterly reports for ongoing projects were received on July 15, 2006 and October 15, 2006. To date, project reports have been received for 100% of the projects. These reports are entered semi-annually into EPA's Grant Reporting Tracking System.

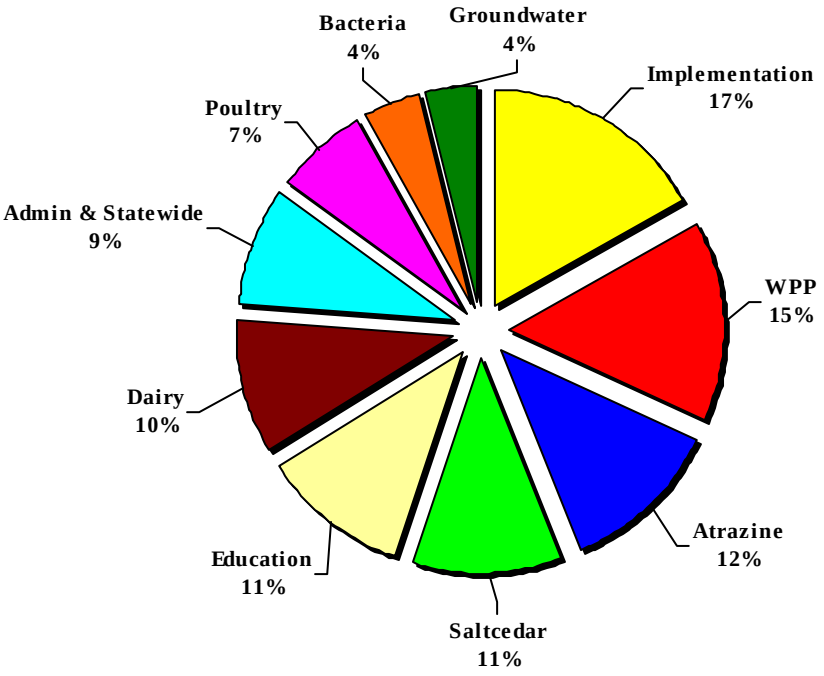


Figure 1.0 TSSWCB active federal 319(h) grants for FY 2000 – FY 2005.

TOTAL MAXIMUM DAILY LOAD (TMDL) PROGRAM

The 1972 federal Clean Water Act (CWA) §303(d) requires all states to identify waterbodies that do not meet water quality standards and are not supporting their designated beneficial uses. The Texas Commission on Environmental Quality (TCEQ) submits an updated list of these impaired waterbodies, called the 303(d) List, to the U.S. Environmental Protection Agency (USEPA) every two years. Once placed on the 303(d) List, Texas must develop a Total Maximum Daily Load (TMDL) for the particular pollutant that is causing the impairment in a specific waterbody.

A TMDL defines the amount of a pollutant that a waterbody can assimilate and still meet water quality standards and support its designated beneficial uses. Based on this environmental target, a state then develops an Implementation Plan (I-Plan) prescribing the measures necessary to mitigate anthropogenic (human-caused) sources of that pollutant in that waterbody. The TMDL and the I-Plan together serve as the mechanism to reduce the pollutant, restore the full use of the waterbody and remove it from the 303(d) List. USEPA must approve the TMDL, but the I-Plan only requires state approval.

With authority as the lead agency in Texas for planning, implementing, and managing programs and practices for abating agricultural and silvicultural NPS pollution, TSSWCB shares responsibility with TCEQ to develop TMDLs for the State. TSSWCB collaborates on TMDL projects and funds TMDL-related activities encompassing monitoring, assessment, modeling, planning, education and implementation.

The TSSWCB and the TCEQ convened for a joint meeting and work session on September 27, 2006 to renew this partnership in cleaning up impaired bodies of water. Commissioners and Board Members authorized their Executive Directors to sign a revised Memorandum of Agreement on TMDLs, I-Plans, and Watershed Protection Plans. This framework for collaboration between the two agencies describes the programmatic mechanisms the agencies will employ to develop and implement TMDLs.

TSSWCB is actively engaged in the implementation of several approved TMDLs and I-Plans with agricultural or silvicultural NPS components:
Aquilla Reservoir – Atrazine (Approved 2002)
E.V. Spence Reservoir – Salinity (Approved 2001)
North Bosque River – Nutrients (Approved 2002)

TSSWCB is collaborating with stakeholders on the development of I-Plans for TMDLs approved by TSSWCB and TCEQ with agricultural or silvicultural NPS components:
Lake O' the Pines – Dissolved Oxygen (Approved 2006)

Additionally, TSSWCB is actively involved in the development of TMDLs for waterbodies impaired, at least in part, by agricultural or silvicultural NPS pollution:
Adams and Cow Bayous – Bacteria, Dissolved Oxygen, and pH
Arroyo Colorado – Dissolved Oxygen
Atascosa River – Bacteria
Clear Creek – Bacteria
Copano Bay and Aransas and Mission Rivers – Bacteria
Dickinson Bayou – Dissolved Oxygen
Elm and Sandies Creeks – Bacteria and Dissolved Oxygen

Gilleland Creek – Bacteria
Guadalupe River above Canyon Lake – Bacteria
Leon River below Proctor Lake – Bacteria
Lower San Antonio River – Bacteria
Middle Texas Coast – Bacteria
Oso Bay and Oso Creek – Bacteria and Dissolved Oxygen
Peach Creek – Bacteria
Upper Oyster Creek – Bacteria and Dissolved Oxygen
Upper Trinity River – Bacteria

Various TSSWCB Programs, such as the CWA §319(h) NPS Grant Program or the WQMP Program, target these waterbodies for abatement projects as federal and/or state funding becomes available. These programs are described in detail in other sections of this Semi-Annual Report. Many of these waterbodies have projects currently in progress implementing practices to prevent and abate agricultural and silvicultural NPS pollution.

The TSSWCB and the TCEQ convened for a joint meeting and work session on September 27, 2006 to establish a joint technical Task Force on Bacteria TMDLs. The Task Force, chaired by Dr. Allan Jones with the Texas Water Resources Institute, is charged with:
examining approaches other states use to develop and implement bacteria TMDLs,
making recommendations on cost- and time-effective TMDL development methodologies,
making recommendations on I-Plan development approaches, including modeling and bacterial source tracking (BST) methodologies,
evaluating the variety of models and BST methods and recommending under what conditions which approach is more appropriate, and
describing a science and research roadmap to reduce uncertainty in what we know about how bacteria behave under water conditions in Texas.

Other Task Force members include Drs. George DiGiovanni with Texas Agricultural Experiment Station–El Paso, Larry Hauck with the Texas Institute for Applied Environmental Research, Joanna Mott with Texas A&M University–Corpus Christi, Hanadi Rifai with the University of Houston, Raghavan Srinivasan with Texas A&M University, and George Ward with the University of Texas at Austin.

The Task Force will complete their assessment and report back to the Commission and Board in early January 2007. Stakeholders with expertise on bacteria related issues will have significant opportunity to provide input to the Task Force during the process. Additionally, local, state, and federal agencies with jurisdictions impacting bacteria and water quality will offer guidance to the Task Force. Recommendations from the Task Force will be used by the Board and the Commission to keep Texas at the national forefront of implementing water quality prevention and abatement projects that lead to cleaner water for drinking, swimming, and fishing. More information on the joint technical Task Force on Bacteria TMDLs is available at http://twri.tamu.edu/bacteriatmdl/.

For more information on the TSSWCB Total Maximum Daily Load Program, visit our website at http://www.tsswcb.state.tx.us/programs/tmdl.html.

WATERSHED PROTECTION PLAN (WPP) PROGRAM

Watershed Protection Plans (WPPs) are locally-driven projects that serve as a mechanism for addressing complex water quality problems that cross multiple jurisdictions. The goal is to protect unimpaired surface waters from pollution threats and restore impaired, polluted surface waters. WPPs serve as tools to better leverage the resources of local governments, state and federal agencies, and non-governmental organizations. WPPs integrate activities and prioritize implementation projects based upon technical merit and benefits to the community, promote a unified approach to seeking funding for implementation, and create a coordinated public communication and education program.

WPPs have a variety of ingredients and can take many forms. The Texas State Soil and Water Conservation Board (TSSWCB) sponsors WPPs which utilize guidelines promulgated by the U.S. Environmental Protection Agency (USEPA) in 2003 that describe nine elements fundamental to a potentially successful plan.

TSSWCB provides guidance and technical assistance to local stakeholder groups in developing and implementing WPPs through one of four mechanisms. One, a TSSWCB Regional Watershed Coordinator facilitates the WPP process in watersheds throughout their service area. Currently, the Wharton Regional Office is piloting this method in Southeast and South Central Texas. Two, TSSWCB provides financial assistance through the CWA §319(h) NPS Grant Program to entities facilitating the WPP process in specific watersheds with significant agricultural or silvicultural nonpoint source (NPS) pollution. Three, TSSWCB staff provide technical assistance to facilitating entities engaged in WPP projects funded by other entities such as the Texas Commission on Environmental Quality (TCEQ) and other third parties. And four, TSSWCB partnerships with Texas Cooperative Extension and the Texas Water Resources Institute are resulting in the development of training programs for local stakeholder groups, such as the Texas Watershed Steward Program and the Texas Watershed Planning Short Course.

The TSSWCB and the TCEQ convened for a joint meeting and work session on September 27, 2006 to renew their partnership in cleaning up impaired bodies of water. Commissioners and Board Members authorized their Executive Directors to sign a revised Memorandum of Agreement on Total Maximum Daily Loads, Implementation Plans, and WPPs. This framework for collaboration between the two agencies describes the programmatic mechanisms the agencies will employ to develop and implement WPPs.

WPP projects currently sponsored by TSSWCB are all funded through CWA §319(h) grants to various entities. Active watershed projects include:
North Bosque River – Brazos River Authority
Buck Creek – Texas Agricultural Experiment Station and Texas Water Resources Institute
Concho River – Upper Colorado River Authority and Texas Institute for Applied Environmental Research
Lake Granger – Brazos River Authority and Texas Agricultural Experiment Station
Leon River – Brazos River Authority
Pecos River – Texas Cooperative Extension and Texas Water Resources Institute
Plum Creek –Texas Cooperative Extension

TSSWCB is also collaborating on TCEQ sponsored watershed projects:
Arroyo Colorado – Texas Sea Grant
Bastrop Bayou – Houston-Galveston Area Council

Caddo Lake – Northeast Texas Municipal Water District
Dickinson Bayou – Texas Sea Grant
Lake Granbury – Brazos River Authority and Texas Water Resources Institute
Hickory Creek – City of Denton
Upper San Antonio River – San Antonio River Authority

There are several other WPP projects across the state which are funded and sponsored by other agencies. TSSWCB is participating in these third party watershed projects:
Armand Bayou – Texas Sea Grant and Trust for Public Land
Barton Springs – Barton Springs/Edwards Aquifer Conservation District and City of Dripping Spings
Benbrook Lake – Texas Water Resources Institute and Tarrant Regional Water District
Lower and Middle Brazos River – Brazos River Authority
Bridgeport Reservoir – Texas Water Resources Institute and Tarrant Regional Water District
Caney Creek – Caney Creek Conservation Foundation
Cedar Creek Reservoir – Texas Water Resources Institute and Tarrant Regional Water District
Upper Colorado River – Colorado River Municipal Water District
Eagle Mountian Reservoir – Texas Water Resources Institute and Tarrant Regional Water District
Nueces River – U.S. Army Corps of Engineers
Richland-Chambers Reservoir – Texas Water Resources Institute and Tarrant Regional Water District
Stillhouse Hollow Lake – Lake Stillhouse Hollow Cleanwater Steering Committee, Inc.

In order to abate agricultural and silvicultural NPS pollution, WPPs will implement components of other TSSWCB Programs, such as the WQMP Program or the Brush Control Program. Additionally, the CWA §319(h) NPS Grant Program can serve as a funding source to implement the agricultural and silvicultural components of WPPs. These programs are described in detail in other sections of this Semi-Annual Report.

For more information on the TSSWCB Watershed Protection Plan Program, visit our website at http://www.tsswcb.state.tx.us/programs/watershed.html.

Water Quality Management Plan (WQMP) Program

In 1993, the Texas Legislature passed Senate Bill 503 that directed the TSSWCB to implement Water Quality Management Plans (WQMPs) in Texas. The agency has implemented more than 6000 WQMPs since the inception of the program.

The WQMP Program is administered from five Regional Offices around the state. A poultry WQMP office will open in Nacogdoches in January 2005. The Regional Offices are:

Dublin Regional Office
Hale Center Regional Office
Harlingen Regional Office
Mount Pleasant Regional Office
Wharton Regional Office
Poultry Program Office (Nacogdoches)

A WQMP is a site-specific conservation plan developed through (and approved by) SWCDs for agricultural or silvicultural lands. The plan includes appropriate land treatment practices, production practices, management measures, technologies or combinations thereof. The purpose of WQMPs is to achieve a level of pollution prevention or abatement determined by the TSSWCB, in consultation with local soil and water conservation districts, that is consistent with state water quality standards.

The TSSWCB selected requirements for a WQMP based on the criteria outlined in the *Field Office Technical Guide (FOTG)*, a publication of the United States Department of Agriculture's Natural Resources Conservation Service (NRCS).

Nutrient management must be included if nutrients are applied. If an animal feeding operation is involved (such as an unpermitted dairy), a WQMP will be planned with practices that individually or in combination with other practices will properly manage animal wastes. Waste utilization will be considered when agricultural wastes are applied. These WQMPs also have subcomponents for irrigation waters, erosion control, and are flexible enough to cater to a wide range of operating systems.

Agricultural and forestry landowners may enter into these cooperative agreements with their local district to control nonpoint source pollution from their operations. While the decision to develop a plan is voluntary, landowners have many reasons to do so. These plans provide for landowners to use best management practices in their operations to protect their most precious agricultural resources by controlling erosion, conserving water, and protecting water quality. In addition, certified plans have the same legal status as Texas Commission on Environmental Quality (TCEQ) point source pollution permits, without having to go through that agency's regulatory process. Landowners may also receive financial incentives to help pay for implementing these plans.

It should be noted that an animal feeding operation that is required by law to operate within the confines of a water quality permit issued by the TCEQ may not participate in the TSSWCB program.

Water Quality Management Plans are especially useful for animal feeding operations. Depending on their size, animal feeding operations may be regulated by TCEQ as a point source or are unregulated and eligible for the TSSWCB's voluntary program. Generally, these feeding operations are classified according to the number of animals they have, calculated as "animal units"; however, TECQ has adopted rules that provide if you have or exceed a certain number of animals, you will be regulated. Animal feeding operations with more than the number of animals listed in TCEQ rules must apply for a permit. Most animal feeding operations in Texas are not large enough to require a permit, which makes this program critical to protecting Texas' water quality.

In developing the Water Quality Management Plan, the TSSWCB, SWCDs, and the USDA Natural Resources Conservation Service (NRCS) provide technical assistance to help the landowner meet the criteria of the plan. A plan establishes practices and installations on the farm that adhere to best management practices specific for that area. The various installations that a plan calls for depend on the operation. A farm may include a combination of cropland, dairy cows, poultry, hogs or cattle.

These plans may also include erosion control measures such as terraces or grass waterways; or they may address nutrient management to help landowners avoid over-fertilizing their land, or over-applying animal waste. Although a plan will take into consideration each farm's unique components, all WQMPs generally attempt to control erosion, conserve water, and protect water quality.

Upon TSSWCB certification of a WQMP, a landowner may apply for a financial incentive that will help pay for implementing the plan. Local districts have varying rates for sharing the cost of plan implementation, however cost-share may not exceed 75% with a maximum $10,000 grant limit per plan. Landowners receiving financial incentive have approximately are now given a specific time period to implement conservation practices, otherwise, their applications are cancelled automatically and the funds are reallocated to another plan. This approach hopefully will reduce the amount of lapsed funds.

The TSSWCB allocates money to local districts for financial incentives based on whether the area has impaired water bodies as determined by TCEQ, or if the TSSWCB had previously designated it as a priority. Most of these financial incentives were appropriated from General Revenue funds. Some plans received financial incentives from federal funds. State appropriations provided to local districts in FY05 amounted to $2,226,042.00 to carry out a WQMP cost-share program in their district.

In addition to certifying WQMPs to ensure that they help abate nonpoint source pollution, the TSSWCB monitors WQMPs to ensure they are properly implemented. Each year, the TSSWCB conducts status reviews on a minimum of 10% of the plans. Additional technical assistance may be offered to a landowner when a WQMP is found noncompliant. In the unlikely case that the landowner does not achieve compliance with the WQMP, the TSSWCB may decertify the plan.

During FY03, the WQMP Program was administered from the TSSWCB office in Temple. The staff reductions in the FY04 budget made it necessary for the program to be reorganized and the Regional Offices activities are now coordinated through the Harlingen Regional Office. Additionally, plan certification authority was shifted from the Temple headquarters to each regional office. This change is already expediting the certification process and reducing postage expenditures, while maintaining the integrity and standards of the program.

The last adjustment involved the complaint process, which was also administered out of the headquarters office during FY03. Headquarters office no longer has an individual to do complaint inspections and all complaints are investigated from the appropriate Regional Office.

Current Status

There was much activity statewide in the water quality management program in FY-06. A total of 839 water quality management plans were certified in the designated priority areas. All cost-share dollars were obligated by 8-31-06. Investigations were conducted on 12 complaints.

As was reported previously, the strategies implemented to address lapsed funds appear to be having an impact. For the FY-04 funding cycle, there was a 42% reduction in lapsed funds. It is anticipated that the reduction for the FY-05 cycle will be higher.

Poultry Water Quality Management Plan (WQMP) Initiative

In 1994, the Texas State Soil and Water Conservation Board (TSSWCB) began assisting poultry operations with the establishment of the Northeast Texas - Senate Bill 503 Cost-share Area. Since 1994, over $300,000 of WQMP Program funding has been provided annually to six soil and water conservation districts (SWCDs) in Northeast Texas to address animal feeding operations (AFOs). Shelby SWCD

began receiving SB 503 funds in FY 2005 and the Nacogdoches SWCD began receiving SB 503 funds in FY 2007.

In 1995, the TSSWCB initiated three federal Clean Water Act, §319(h) projects to demonstrate composting as a means for dead bird disposal, buffer strips, and proper land application of poultry litter. In 1996, the TSSWCB expanded its efforts by initiating a composting and marketing project. This effort to promote the installation of composters and other means of mortality management on poultry farms resulted in accelerated WQMP development.

In 1997, the Texas Legislature passed Senate Bill 1910, which required all poultry farms to have a TCEQ-approved method of dead bird disposal. The law took effect in March 1998. However, the rules were not adopted and did not take effect until fall 1999. It was during this time that requests for poultry-WQMPs significantly increased due to pursuit of cost-share for mandated mortality management. This activity intensified the TSSWCB's poultry initiative.

In 1999, in response to water quality concerns and the initiation of TMDL development in the Big Cypress/Lake O' the Pines watershed, the TSSWCB began using §319 funds for cost-share in the area in addition to the Senate Bill 503 cost-share funds already directed to the watershed. The current implementation process of the TMDL has shown that the WQMP program has resulted in reduced nutrient loadings in the watershed. Due to rising concerns in nearby watersheds, the TSSWCB also included the Sam Rayburn and Toledo Bend Reservoir watersheds in its initiative in 1999. The TSSWCB expanded the poultry initiative again in 2001 to the Gonzales area.

Beginning in 2001, seven soil and water conservation district (SWCD) technicians were employed under federal Clean Water Act §319 contracts to develop WQMPs in poultry producing areas. Six of those contracts expired in 2004 and the seventh expired in March 2005. An eighth §319 district technician was hired in 2003 with the Shelby SWCD and that contract will expire in August 2007. A ninth position was hired in October 2006 in Robertson County and tenth position is pending in Leon County, to help with WQMP development for the Sanderson Farms expansion in the Waco area. As currently contracted, only 4 SWCD technicians are available statewide to assist with poultry WQMP development and review during FY 2007 and those contracts are scheduled to expire in August 2007. TSSWCB has submitted a 2008-2009 Legislative Appropriations Request for 4 additional FTEs to replace the 4 expiring SWCD technician positions, so as to continue technical assistance for poultry producers in these areas.

All together, the TSSWCB has focused over $5 million in federal §319 funding and over $3 million in state funding to assist poultry operations with abating NPS pollution in Texas.

In 2001, the 77th Legislature passed Senate Bill 1339, which requires all poultry facilities in Texas to operate in accordance with a WQMP certified by the TSSWCB. The review and certification process assures the plan includes appropriate practices, management measures, and schedules of implementation.

This law provides a staggered-schedule of deadlines by which each producer, depending on their initial date of operation, must have requested the development of a WQMP from their soil and water conservation district. Any commercial poultry facility constructed after January 1, 2002 is required to have a WQMP prior to the receipt of any birds. All commercial poultry facilities are required to have a WQMP no later than January 1, 2008.

Currently, the TSSWCB is aware of 1428 total dry-litter poultry farms, of which 1347 (94%) currently operate under a certified WQMP. The TSSWCB estimates that 21 farms need to request a plan before January 2008. The other estimated 60 farms have already requested a plan and those plans are in various stages of development. However, there is an ongoing challenge of identifying new poultry farms continually being constructed and put into production and locating other poultry farms not yet identified. Sanderson Farms has announced it will need about 120 new contract farms in the Waco area to supply a new processing plant scheduled to open in August 2007. TSSWCB staff is already developing WQMPs for some of these proposed new farms.

Due to changes made by the U.S. Environmental Protection Agency (EPA) to the federal regulations for concentrated animal feeding operations (CAFOs), the Texas Commission on Environmental Quality (TCEQ) adopted a rule change in 2004 that required dry-litter poultry operations larger than 125,000 broilers or pullets, 82,000 layers or breeders, or 55,000 turkeys to operate under a water quality permit. However, due to a federal court decision by the U.S. 2nd Circuit Court of Appeals in February 2005, the EPA issued a notice that the date by which a permit must be obtained has been extended to July 31, 2007. Also in compliance with the court decision, the EPA released additional proposed rule changes in June 2006. Under the proposed new rule, farms that do not actually discharge wastes to waters of the U.S. are not required to apply for permit coverage, thereby eliminating the need for dry-litter operations to apply. EPA expects to have the final rule adopted prior to July 31, 2007. In advance of EPA's final rule, TCEQ made a rule change in September 2006 to allow CAFO size dry-litter poultry farms an exemption to permitting if they obtain and follow a WQMP certified by TSSWCB.

In FY 2007, the TSSWCB Poultry Office, located in Nacogdoches, continues to develop, update, and review Water Quality Management Plans for poultry producers and provide assistance with all issues related to the Poultry WQMP Program. The Poultry Program Supervisor and two Natural Resource Specialists staff the office. Approximately 650 (46%) of the estimated 1428 dry-litter poultry farms in Texas are located in an eight-county area surrounding Nacogdoches. Approximately 33 (5%) of the farms in those counties still need a WQMP developed. The office also assists other soil and water conservation districts in the state with poultry WQMP development as needed.
The following is a summary of the status of farms statewide needing a WQMP that TSSWCB is currently aware of.

Date Due	Status	Number of Farms
Prior to Bird Placement	Not Signed-up	+/-85 (Sanderson Farms in Waco Area)
	Plans in Progress	5 (Sanderson Farms in Waco Area)
1/1/2002	Not Signed-up	0
1/1/2002	Plans in Progress	0
1/1/2003	Not Signed-up	0
1/1/2003	Plans in Progress and/or Signed-up	0
1/1/2005	Not Signed-up	0
1/1/2005	Plans in Progress and/or Signed-up	0
1/1/2008	Not Signed-up	21
1/1/2008	Plans in Progress and/or Signed-up	28
Unknown	Not Signed-up	3
Unknown	Plans in Progress and/or Signed-up	14

Subtotal:		156
Unknown	Additional Gonzales area farms*	30

- One integrator in the Gonzales area has indicated approximately 30 farms that are or have been wet operations and required permits will now convert to dry operations and will need WQMPs.

NORTH BOSQUE RIVER WATERSHED INITIATIVE

In 1998 the North Bosque River (Segments 1226 and 1255) was included in the Texas CWA §303(d) List of impaired waters under narrative water quality standards related to nutrients and aquatic plant growth. In February 2001, the TCEQ adopted *Two Total Maximum Daily Loads for Phosphorus in the North Bosque River* for segments 1226 and 1255.

The TMDLs concluded that:

- Use of the two segments was "impaired" by high levels of nutrients.
- The nutrient of principal concern was soluble reactive phosphorus (SRP)
- Reduction of SRP of approximately 50% would reduce the potential for problematic algal growth in the river.
- The major controllable sources of nutrients in the North Bosque River basin were municipal wastewater treatment plants (WWTPs) and NPS pollution from dairy waste application fields (WAFs).

In December 2002, both the TCEQ and the TSSWCB adopted *An Implementation Plan for Soluble Reactive Phosphorus in the North Bosque River Watershed*. The four basic elements of phosphorus control identified in the plan were:

- Phosphorus application rates in WAFs.
- Reduced phosphorus diet for dairy cows to reduce the phosphorus content of dairy wastes.
- Removing approximately half of the dairy-generated manure from the North Bosque River watershed for use or disposal outside of the watershed.
- Effluent limits on phosphorus for municipal wastewater treatment plants.

Before and since the adoption of the I-Plan, the TSSWCB TMDL Program has been actively working on numerous projects and programs designed to assist the agricultural community in meeting its recommendations and requirements. Clean Water Act §319(h) Grant Program funding has been used extensively to assist in the development and implementation of the North Bosque River TMDL. Currently, seven CWA §319(h) funded projects are actively assisting the implementation of the North Bosque River TMDL. All of the efforts explained in the following discussions are in support of the TMDL and the I-Plan.

DAIRY MANURE EXPORT SUPPORT (DMES) PROGRAM

The Dairy Manure Export Support (DMES) program can claim a remarkable achievement: As of November 30, 2006, over one million sixty-eight thousand tons (1,068,000) of manure have been removed from North Bosque and Leon watershed dairies and transported to commercial composting operations. The initial goal of the DMES program was to export 300,000 tons of manure from

participating dairy farms from November 2000 through October 2003. That benchmark was exceeded in less than two years.

The TSSWCB initiated the Dairy Manure Export Support (DMES) program in an effort to bring an innovative solution to the problem of elevated phosphorus levels in the North Bosque and Leon River Watersheds. The DMES program offers financial incentives to commercial manure haulers to support the transport of raw manure from dairy farms in the North Bosque and Leon River Watersheds to commercial composting operations. The raw manure is then improved through a composting process so it may be put to beneficial use. Entities such as the Texas Department of Transportation and municipalities, as well as agricultural producers and the general public are some of the target purchasers of the composted product. The TCEQ, TSSWCB's partner in the overall regional program, provides rebates to these target purchasers to facilitate the development of a sustainable market. The export of this surplus manure (and the nutrients contained in the manure) will help address concerns regarding potential NPS water quality impacts associated with traditional on-farm land application of manure in the region.

Overall DMES program management is controlled through the TSSWCB. The TSSWCB has contracted everyday activities to the Texas Institute for Applied Environmental Research (TIAER) at Tarleton State University. In April 2001, TIAER subcontracted many aspects of the program to the Foundation for Organic Resources Management (FORM), which was replaced by imanage, LLC in July 2003. Through FORM, and later imanage, LLC, the DMES program has been managed at the local level through a DMES program office located in Stephenville, Texas. The TSSWCB has contracted TIAER to manage the program through August 31, 2007.

Participation requirements for dairies include being located in the North Bosque and/or Leon River Watersheds. Dairies must have (or have applied for) a TSSWCB–certified Water Quality Management Plan or a TCEQ water quality permit and an approved nutrient utilization plan. Each composting facility must be compliant with all state regulations regarding compost facilities and be approved for participation in TCEQ's Composted Manure Incentive Project (CMIP). Manure haulers must attend a workshop convened by the TSSWCB's contractor and obtain a vendor number from the Texas State Comptroller and authorize direct deposit.

Individual hauling jobs are coordinated through manure haulers that make arrangements with dairies and commercial composting operations. A manure hauler completes a job notification form, which is then submitted to the DMES office for approval. Once approval is received, the manure hauler performs the work and submits an invoice to the DMES office, which is signed by a representative of the dairy, accompanied by load tickets signed by a representative of the composting facility, and a scale ticket for each load. The DMES office prepares semi-monthly reimbursement request summaries, has them approved by TIAER, and then submits them to the TSSWCB for payment. Because the TSSWCB is using CWA §319(h) funding from the U.S. Environmental Protection Agency (EPA), the TSSWCB must then request that the funds be released from EPA to the TSSWCB. The TSSWCB then issues reimbursements via direct deposit to the manure haulers.

Starting October 1, 2005, the DMES program was provided additional federal and state appropriations for one additional year. This would have resulted in an end date of September 30, 2006. However, because there is significant funding remaining for the program, TSSWCB staff has conducted communications with the Texas Legislature and the EPA. The decision was made to carry the program forward at the current incentive rate through August 31, 2007, or until funding is exhausted.

COMPREHENSIVE NUTRIENT MANAGEMENT PLAN (CNMP) PROGRAM

The TSSWCB Comprehensive Nutrient Management Planning (CNMP) Program was developed in response to a control measure recommended in the I-Plan for the North Bosque River TMDL for Soluble Reactive Phosphorus. The I-Plan recommended that dairy producers in the watershed voluntarily develop and implement a CNMP, however, the Texas Commission on Environmental Quality (TCEQ) adopted a rule that makes the recommendation a requirement. This program is confined to the North Bosque River and Leon River Watersheds by TSSWCB rule.

A CNMP is a resource management plan containing a grouping of conservation practices and management activities which, when combined into a conservation system, will help ensure that both agricultural production goals and natural resource concerns dealing with nutrient and organic by-products and their adverse impacts on water quality are achieved. A CNMP incorporates practices to utilize animal manure and organic by-products as a beneficial resource. The TSSWCB selected requirements for a CNMP based on the TCEQ rules and regulations required for permitted and unpermitted animal feeding operations and criteria outlined in the Field Office Technical Guide (FOTG), a publication of the United States Department of Agriculture's Natural Resources Conservation Service (NRCS). The FOTG represents the best available technology and is already tailored to meet the needs of soil and water conservation districts all over the nation. To be certified by the TSSWCB, the local SWCD, the producer, and the local NRCS Field Office must approve a CNMP.

As of December 1, 2006, the TSSWCB has certified 26 of the 86 CNMPs that have been submitted for approval. The TSSWCB, NRCS, and the Texas Association of Dairymen have held numerous meetings with dairy producers and technical service providers since January 2006 in an effort to facilitate development and submittal.

Texas Atrazine Initiative

Background

Atrazine is a pre-emergent herbicide primarily used to control broadleaf and grassy weeds in corn and sorghum. Since it went on the market in 1958, it has become the most widely used herbicide in the United States.

It is classified as a restricted use herbicide due to its potential for groundwater contamination. Inconsistent with its restricted use designation, it is commonly found in W*eed and Feed* and other home and garden products, making it not only an agricultural issue, but an urban issue as well.

Atrazine, a chlorinated triazine herbicide, acts as a photosynthesis inhibitor. It is nontoxic to humans, having about the same toxicity as table salt. It has no adverse reproductive effects. It’s not teratogenic or mutagenic. Only low levels of bioaccumulation may be expected in fish organs. It is nontoxic to birds and only slightly toxic to aquatic life.

Atrazine is, however, a possible human carcinogen (Class C). Due to this, a Maximum Contaminant Level (MCL) of 3 μg/L (micro-grams per liter) has been established for finished drinking water. A micro-gram would equate to 0.000,001 grams per liter of water.

Atrazine is persistent in the environment, having a field half-life of 60 days. It is moderately soluble in water and is not removed from drinking water by conventional water treatment methods. Activated carbon, ozonation, cation exchange, and UV treatment methods must be used to remove it from drinking water.

Because of its persistence, solubility, and widespread use, Atrazine is commonly found in surface water. A 1993-95 US Geological Survey (USGS) study of pesticides in urban and agricultural streams in the Trinity River Basin found Atrazine in 100% of samples from both sources. This suggests that Atrazine is both an agricultural and urban problem. The concentrations in the agricultural streams were, however, greater than the concentrations in the urban streams.

Development of the Texas Approach

In Texas, testing of Atrazine in drinking water began in 1993. However, the method used only had a detection limit of 3 µg/L, and little detection was observed. In 1996, the state began using EPA (testing) Method 525.2, which has a much lower detection limit 0.065µg/L. Once the state began using this new (testing) method, numerous detections began appearing around the state in both surface and groundwater supplies. Between 1996 and 1999, Atrazine was detected in 69 water supplies around the state. In addition to drinking water monitoring, some raw water monitoring for Atrazine has been performed, but it has been infrequent and project specific.

In 1995, due to a detection of 9.6 µg/L in Marlin City Lake, the Marlin City Manager contacted the TCEQ-Source Water Assessment and Protection (SWAP) team for assistance. The City of Marlin and TCEQ-SWAP team then approached EPA for federal assistance. In 1996, Marlin City Lake was designated an EPA Region 6 Pilot Source Water Protection Program project.

To deal with the growing number of Atrazine detections around the state, TCEQ-SWAP formed an "Atrazine Steering Committee" in 1997 (later, the committee was renamed the "Surface Water Protection Committee). Committee membership consisted of the TSSWCB, the TDA, Texas A&M University, Novartis, the USDA- NRCS, the USDA-Agricultural Research Service (ARS), the Texas Farm Bureau, the Brazos River Authority, and municipal representatives. The committee's goal was to develop a strategy to address the numerous detections of Atrazine in drinking water in a proactive manner through BMP implementation and public education.

In 1998, nine reservoirs were listed as impacted by Atrazine on the §303(d) List. One of these, Aquilla Reservoir was listed as impaired by Atrazine. The running annual average at the Aquilla Water Supply District's treatment plant for the second quarter of 1997 through the first quarter of 1998 was 4.0 µg/L, violating the drinking water standard (3 µg/L) and triggering the listing of Aquilla Reservoir as an impaired water of the state. The other eight reservoirs, Lake Bardwell, Joe Pool Lake, Marlin City Lake, Lake Lavon, Lake Tawakoni, Richland Chambers Lake, Lake Waxahachie, and Big Creek Lake, were listed as threatened by Atrazine.

Following the listing of these reservoirs on the §303(d) List, the state began developing and implementing an initiative to remediate the Atrazine threats and impairments consisting of:
Performing a standard TMDL in Aquilla Reservoir
Building on the Source Water Protection Program in Marlin City Lake
Performing targeted monitoring and implementing BMPs in the 7 threatened lakes

Implementation of the Atrazine Initiative

The Aquilla TMDL was initiated in November 1998. It was a cooperative effort among the Texas Agricultural Experiment Station (TAES), Texas Cooperative Extension (TCE), Texas Department of Agriculture, Texas A&M University, TCEQ, TSSWCB, NRCS, Novartis, and local stakeholders. Over $500,000 was provided for the Aquilla and Marlin projects through PPG funds, §§319(h), 604(b), Source Water Protection, TCEQ GR, and in-kind contributions. Stakeholder committees were formed for the Marlin and Aquilla projects. Training for pesticide applicators, demonstration of BMPs, and TEX*A*SYST was provided by the TAES in cooperation with the TCE. The Texas Agricultural Experiment Station conducted monitoring in the Aquilla and Marlin Watersheds. SWAT modeling of the watershed was completed as an in-kind contribution effort of NRCS, TDA, and TCEQ. Economic analyses of the implementation of BMPs on farms in both watersheds were also completed by the TAES.

The TMDL for Atrazine in Aquilla Reservoir was adopted by the TSSWCB and TCEQ in March 2001, and was revised in June 2002 in response to comments from the Environmental Protection Agency (EPA). The implementation plan was approved by the TSSWCB and TCEQ in January 2002. Region 6 of the EPA approved the TMDL on October 30, 2002.

The TMDL stated that a load reduction of approximately 25% would result in attainment of the water quality standards.

The environmental target set for measuring the success of the TMDL implementation plan is a running annual average concentration of Atrazine *in the reservoir* that does not exceed 3.0 μg/L for two consecutive years.

The TCEQ and the TSSWCB had the leadership roles for implementing the project, as well as for developing the TMDL. The key groups involved in implementing the plan at the local watershed level were agricultural producers and city governments. Regionally, the key partners were Aquilla Water Supply District, the Woodrow-Osceola Water Supply Corporation, the Hill County Appraisal District, and the Hill County-Blackland Soil and Water Conservation District. The Texas Cooperative Extension (TCE) and the Texas Department of Agriculture (TDA) also implemented aspects of the project. The U.S. Army Corps of Engineers, the federal agency that owns and operates the lake, also cooperated.

Since the source of the Atrazine was known, some activities were initiated before the TMDL and its implementation plan were complete. In 1998, the NRCS established the Aquilla EQIP Priority Area. From 1998-2003, the NRCS obligated over $2 million to implement BMPs in the Aquilla Watershed. Along with the EQIP funding, the TSSWCB initiated a §319 project in 1999 to provide cost-share and technical assistance through the Hill County-Blackland SWCD to encourage the implementation of BMPs in the Aquilla Watershed to reduce sediment and pesticide runoff from corn and sorghum farms.

In 1999, Aquilla area farmers formed a Producers Atrazine Action Committee. Meetings featured speakers on water quality topics and training on pesticide application. The Producers Committee developed a list of BMPs recommended for use in the watershed, and composed a questionnaire to document adoption of BMPs over time. In addition, the committee met with pesticide dealers to increase dealers' awareness of the problem and to gain their assistance. The practice to incorporate herbicides into the soil upon application was already adopted by about 33% of area producers at the end of the first year, and reached nearly 100% by the third year of the project.

In the seven threatened lakes, targeted monthly monitoring was conducted near water supply intakes to verify the level of impairment and provide baseline data for future actions. Texas A&M University conducted the analysis. Water quality sampling conducted by the TCEQ was used to measure the effectiveness of the practices. In addition, Syngenta, a private corporation that markets Atrazine, continued its voluntary pesticide-monitoring program with the area's public water suppliers.

Partners in the program include the TSSWCB, the TCEQ, the TDA, the TPWD, the Texas Agricultural Experiment Station (TAES), the TCE, and the federal Natural Resources Conservation Service (NRCS). Several other agencies and interested parties were involved, including the EPA, the Brazos River Authority, the Sabine River Authority, the Aquilla Water Supply District, and Syngenta (formerly Novartis), a private corporation.

Monitoring was completed in August 2003, with the exception of Bardwell and Lake Waxahachie. The City of Waxahachie continues to sample these lakes to obtain the needed 36 monthly samples.

Technical and financial assistance was provided to corn and sorghum farmers to implement BMPs in the seven lakes watersheds through 12 TSSWCB §319 projects funded by EPA, over $4.1 million in cost share and TA was provided to farmers through SWCDs. Demonstrations, monitoring, and modeling were also conducted through TSSWCB 319 projects to support and evaluate the implementation of BMPs in the seven threatened lakes. Through the TSSWCB 319 program, almost $4.6 million has been obligated to address the Atrazine issues in the seven threatened lakes.

In 2000, the Little River was listed as threatened by Atrazine. In response to this listing, the TSSWCB initiated two 319 projects in 2002 to provide technical and financial assistance to the area to address this threat. These efforts were continued in 2003 with the provision of additional funding. Over $1.1 million in 319 funding has been provided to encourage BMP implementation.

Atrazine Initiative Results – A Success Story

As a result of the Atrazine Initiative, Atrazine concentrations in Aquilla Reservoir have been reduced to safe levels. Between 1998 and 2003, Atrazine concentrations in Aquilla Reservoir have been reduced by approximately 60%, to amounts lower than those required for treated drinking water. There have also been no Atrazine concentrations higher than the allowable amount at the Aquilla Water Supply District's drinking water treatment plant. Monitoring will be continued on a quarterly schedule to ensure that Atrazine concentrations remain at a safe level. The BMPs implemented to help reduce the level of Atrazine are under contract for five years and as long as they are maintained, the level of detectable Atrazine should remain below standards.

Monitoring by TCEQ indicates that Atrazine concentrations in five of the seven lakes have been reduced to levels that warrant their reclassification from threatened. Those lakes are now attaining their uses as a source for treated drinking water.

The other two lakes, Bardwell and Waxahachie Reservoirs, are still being monitored. However, trends in those two reservoirs indicate that they, too, will no longer be classified by the TCEQ as threatened within the next six months.

Coastal Management Program

BACKGROUND

The Texas Coastal Management Program (CMP) was created to coordinate state, local, and federal programs for the management of Texas coastal resources. The program brings in federal Coastal Zone Management Act (CZMA) funds to Texas state and local entities to implement projects and program activities for a wide variety of purposes. The Coastal Coordination Council (CCC) administers the CMP and is chaired by the Commissioner of the GLO. It comprises the chair or appointed representatives from the TPWD, the TCEQ, the TWDB, TxDOT, a member of the Texas State Soil and Water Conservation Board, a member of the RRC, the director of the Texas A&M University Sea Grant Program and four gubernatorial appointees. These members are selected to provide fair representation for all aspects concerning coastal issues.

The Council is charged with adopting uniform goals and policies to guide decision-making by all entities regulating or managing natural resource use within the Texas coastal area. The Council reviews significant actions taken or authorized by state agencies and subdivisions that may adversely affect coastal natural resources to determine their consistency with the CMP goals and policies. In addition, the Council oversees the CMP Grants Program and the Small Business and Individual Permitting Assistance Program.

The Coastal Zone Act Reauthorization Amendments (CZARA), Section 6217, requires each state with an approved coastal zone management program to develop a federally approvable program to control coastal nonpoint source pollution. The Texas CCC appointed a Coastal Nonpoint Source Pollution Control Program workgroup to develop this document. The National Oceanic and Atmospheric Administration and the U.S. Environmental Protection Agency jointly administer the program. In Texas, two agencies hold primary responsibility for the program's development and implementation: the Texas Commission on Environmental Quality and the TSSWCB.

Section 6217 calls for implementation of management measures (§6217(g) measures or (g) measures) that will control significant nonpoint sources of pollution to coastal waters. Six source categories are addressed by these measures: agriculture, forestry, urban and developing areas, marinas, wetland/riparian areas, and hydro modification. States can use voluntary approaches combined with existing state authorities to achieve implementation of management measures. However, if the voluntary mechanisms are not effective, states must have backup enforcement authorities in place to ensure that management measures are implemented.

Texas submitted the Texas Coastal Nonpoint Source Pollution Control Program to EPA and NOAA in December 1998. In October 2000, Texas submitted the Texas Coastal NPS Control Program 15-year Program Strategy and FY 2001-2005 Implementation Plan.

Final findings were issued by NOAA/EPA in July 2003, which contained conditional approval of the program. The agricultural and silvicultural portions of the program were approved without conditions.

CURRENT STATUS

The TSSWCB is responsible for implementing the agricultural and silvicultural management measures of the program. The main mechanism we have for this is the State's cost-share program for implementing Water Quality Management Plans on farms and ranches through local soil and water conservation districts

(SWCD). For over seven years, more than $300,000 of state funds has been spent annually in the coastal zone districts to provide cost-share to implement 1691 Water Quality Management Plans.

In addition to state funding, Texas receives §6217 funding from NOAA for implementing the Coastal Nonpoint Source Pollution Control Program. For several years, SWCDs in the Coastal Management Zone have received grants from NOAA's §6217 Implementation Funds to install agricultural management measures through the TSSWCB Water Quality Management Plan program. This has been very effective in expanding Texas' effort in carrying out the agricultural portion of its coastal nonpoint source program. In March 2004, NOAA issued final guidance for the program funds. The guidance no longer allows these funds to be used to implement agricultural best management practices on private lands. As a result, federal funding is no longer available for SWCDs to implement agricultural management measures beginning in FY06. In addition, the FY05 NOAA budget cut the Coastal Nonpoint Source Pollution Control Program funding by 70%. The FY05 amount Texas received was only $112,000. The amount of FY06 funding for coastal nonpoint source pollution control programs was only $102,000.

In the meantime, our Water Quality Management Plan program in the coastal management zone continues.

Implementation of the silvicultural management measures in the coastal zone is through a CWA §319 grant from the TSSWCB to the Texas Forest Service.

Information Technology

PC Hardware Upgrade

The last half of 2006 saw the completion of the agency's largest PC upgrade, in which the oldest and most problematic PCs were replaced with more capable and reliable hardware. Prior to this upgrade, a large percentage of the agency's production PCs were in a substantially deteriorated state, risking unacceptable levels of downtime.

Each of the machines replaced was at or, in most cases, significantly beyond the PC life cycle recommendations from the Texas Department of Information Resources (DIR).

All purchases were made in accordance with state law and DIR guidelines through a DIR-approved vendor. Most purchases were made using DIR's Buyer's Alert Program, which resulted in substantial cost-savings during the purchase phase of this project.

Network Migrations Bring Cost Savings and Increased Bandwidth

Also in the later half of 2006, the agency began to directly benefit from the growing digital subscriber line (DSL) service areas of telecommunications companies in the state. The agency converted two of its fractional T1 frame relay wide are network connections to DSL, simultaneously realizing significant cost-savings and increases in available bandwidth.

The first two offices to have completed the migration are located in Harlingen and Wharton where monthly costs for the new DSL lines are expected to net 80 percent savings when compared to the costs of the previous frame relay connections. Additionally, the offices are profiting from an increase in upload

bandwidth of between 50 to 100 percent and an increase in available download bandwidth of between 500 to 1,600 percent.

Future migrations from frame relay to DSL are to be scheduled for offices in Hale Center, Mount Pleasant and Dublin. Until recently, frame relay was the only way to bring broadband connectivity to the sites involved in this project.

The sole expense for this project thus far has been related to the purchase of the telecommunications service. The agency uses commodity PCs powered by open source software to operate its routers and provide office network services, resulting in no external costs for software, service or support.

Each of these telecommunication services were acquired through a vendor approved by the Texas Department of Information Resources.

Keeping Track of It All -- Network Calendar Trial

In December, the IT Department rolled out a new network calendar capability to help the agency's nonpoint source team keep track of the projects, deadlines and meetings that employees are a part of in their work across the state.

This project was built to be secure, standards-based and to leverage the power of open source projects. On the server, WebDAV is used to hold data in a secure manner where it is accessible to authorized users. On the client side, employees subscribe to, and publish network calendars using Lightning, a still relatively new open source calendar extension to the open source Thunderbird email client used by most agency employees.

The project is still in trial phase, though initial responses have been positive. If the network calendar capability proves to be a viable and productive service, it will be offered to other agency departments.

As this project was built completely from freely available open source software, it has resulted in no cost to the agency for software, licensing or external support.

TSSWCB IT Support – Electronic Help Desk Support

The IT department completed the roll-out of an electronic help desk application designed to help IT staff track feature requests and trouble tickets throughout all areas of the agency's information technology operations.

Th system allows all agency employees to self-report requests and trouble tickets. Additionally, it provides a new avenue for staff to make requests outside of normal business hours and offers a valuable auditing tool for the IT staff. The application also provides IT staff a secure repository from which requests may continue to be addressed during times of evolving workloads.

This application was implemented entirely with open source software and resulted in no cost to the agency for software, licensing or outside support.

Wireless Networking Protocol Upgrade

Taking advantage of the continuing improvements in security and and bandwidth in wireless local area networking, the agency upgraded its Harlingen office infrastructure to provide the now widely available 802.11g wireless networking standard, in addition to the older 802.11b.

The bandwidth increases afforded by this upgrade have provided significant improvements for technical staff working with large graphic information system files over the network. Based on positive experiences in Harlingen and previously in Hale Center, the IT department is planning to upgrade other agency offices in the future.

Slowing the Mounting Tide of Unsolicited Commercial Email with Greylisting

In November, the IT department deployed a mail server application to implement greylisting -- a new weapon to combat the ever-increasing deluge of spam (unsolicited commercial email) being processed by the agency email systems.

In tests performed by the IT department, greylisting reduced the volume of spam needing to be filtered out by agency systems by 89 percent. This saves valuable system resources for other work and represents a substantial security enhancement, as an increasing amount of malicious code is being delivered through spam messages.

Greylisting works by temporarily rejecting the first mail a user outside the agency network sends. Properly configured, legitimate mail servers are not negatively impacted by this and will deliver the mail (usually a few minutes) later when it is then accepted by agency systems. Most spam mail is not redelivered, thus this simple technique blocks a huge amount of spam.

Once a mail has been accepted, the sender's future mails will not be temporarily rejected again (unless they don't send additional mail within 90 days).

Greylisting was implemented at the TSSWCB using open source software that resulted in no cost to the agency for software, licensing or external support.

Public Information /Education Report FY06

General Overview

The purpose of the public information/education program is to provide leadership and coordination of information/education programs relating to the agency and district programs, services, operations and resources. The TSSWCB prepares and disseminates public information relative to the agency and district functions, programs, events and accomplishments for the public and to farmers and ranchers. TSSWCB staff coordinates seminars, conferences, workshops, displays at trade shows and training for district directors and district bookkeepers, conservation professionals, youth groups and other entities. Staff provides guidance to districts with their own individual information/education programs as well as regional and state information/education programs initiated by districts. Staff prepares and disseminates press releases, news stories and printed promotional products. The TSSWCB monitors the use of the publications and use of information. Staff represents the agency as needed with various information/education groups and entities. The TSSWCB has a cooperative agreement with the

Association of Texas Soil and Water Conservation Districts to provide assistance and help coordinate district involvement and participation with Association's Information/Education Committee and its programs.

2006 Summer Teacher Workshops

Several teacher workshops are held each summer for teachers interested in conservation and natural resource issues. The workshops are held in various parts of the state in cooperation with the TSSWCB. The Texas Environmental Education Advisory Committee to the Texas Education Agency approves the content of these workshops, sponsored by the TSSWCB. As an approved Environmental Education Professional Development Provider teachers are able to get credit hours toward their required continuing education units (CEUs), while experiencing nature and the outdoors.

Pedernales SWCD hosted a Teachers Workshop in Johnson City, Texas at the Franklin Family Ranch on June 13-15, 2006. Topics included grass management, soils, water cycle, plants in the Texas hill country, wildlife biology, and prescribed burning.

2006 Texas Conservation Awards Program

Each year, the Texas State Soil and Water Conservation Board and the Association of Texas Soil and Water Conservation Districts co-sponsor the Texas Conservation Awards Program to recognize and honor those who dedicate themselves and their talents to the conservation and wise use of renewable natural resources. The 2007 Awards Program currently underway marks the 29th year of this joint program.

Local districts select their outstanding individuals as winners and submit them by mid-February each year for regional judging. Those selected as regional winners are honored each May at regional Awards Banquets. From these regional winners, a state winner is selected for the Outstanding Conservation Districts, Outstanding Conservation Teacher, Poster Contest, and the Essay Contest. These individuals are invited to the Annual State Meeting for recognition.

The conservation awards program provides competition and incentives to expand and improve conservation efforts, resource development, and increase the wise utilization of renewable natural resources. As a result, soil and water conservation districts, and both rural and urban citizens of Texas are benefited.

Soil and water conservation districts may enter their local recognition honorees in any of 10 categories (East Texas has an additional category of Forestry Conservationist), depending on appropriateness to the category description. For the youth of the district, there is also a poster and essay contest. The categories and a brief description of each are:

Outstanding Conservation District

Awarded to the winning soil and water conservation district in each area for the most outstanding program during the past fiscal year.

Resident Conservation Rancher

Awarded to the outstanding resident conservation rancher in each area. They must be a resident of the district, perform ranching activities within the district and be a cooperator with the district from which the entry was submitted. The rancher may have other business or professional interests.

Resident Conservation Farmer

Awarded to the outstanding resident conservation farmer in each area. They must be a resident of the district, perform farming activities within the district and be a cooperator with the district from which the entry was submitted. The farmer may have other business or professional interests.

Absentee Conservation Farmer/Rancher

Awarded to the outstanding absentee conservation farmer or rancher in each area. They must reside outside the district, but operate farming or ranching activities within the district and be a cooperator with the district from which the entry was submitted. The person may have other business or professional interests.

Water Quality Management Plan

Awarded to the outstanding Water Quality Management Plan recipient in each area. They must be a district cooperator who has a district approved Water Quality Management Plan and has incorporated water quality into their farming or ranching activities and soil and water conservation work.

Essay Contest –Two Categories (Those 13 and under and those 14 to 18 years of age)

Essays (topic: "Celebrate Conservation") are to be submitted to local soil and water conservation districts for local judging. Each local district will judge the entries and submit three essays to the TSSWCB for competition on the area level. Plaques will be awarded to 1st, 2nd and 3rd place winners on the area level and state winners will be selected from the area winners. This contest is open to students, in two categories, one for those ages 13 and under, and the other category for those ages 14 to 18 years of age and does not jeopardize Texas University Interscholastic League eligibility.

Poster Contest

Posters should address one of the following subjects: "Food for the Future" or "The Living Soil". Posters shall be submitted to local soil and water conservation districts for local judging. Each local district will judge the entries and submit three posters to the TSSWCB for competition on the area level. Plaques will be awarded to the 1st, 2nd and 3rd place winners on the area level and state winners will be selected from the area winners. This contest is open to students, 12 years and under, and does not jeopardize Texas University Interscholastic League eligibility.

Business/Professional Individual

Awarded to the outstanding man or woman in the business community who has rendered the most unselfish conservation service in each area. Representatives of the news media (radio, television,

newspaper, magazines, etc) who contribute to or provide support for conservation shall also be considered eligible for this award. (This award is not for individual conservation practices or individuals who, because of employment, assist with or augment the work of the soil and water conservation district.)

Conservation Teacher

Awarded to the outstanding teacher of conservation in schools in each area. Teachers of all grade levels are eligible for this award.

Wildlife Conservationist

Awarded to the outstanding wildlife conservationist in each area. They must be a district cooperator who has incorporated wildlife conservation into their farming and ranching activities.

Conservation Homemaker

Awarded to the outstanding conservation homemaker in each area. The homemaker and or family must own or operate a farm or ranch, be a district cooperator and have knowledge of the conservation programs being implemented.

Conservation District Employee

Awarded to the outstanding soil and water conservation district employee who exhibits a degree of knowledge, skill, ability, and leadership that clearly results in superior job performance far above the basic requirements of the position.

Forestry Conservationist (Area IV only)

Awarded to the outstanding forestry conservationist for the most outstanding farm forestry conservation program in the commercial forest areas of Texas. They must be a district cooperator or an individual who has implemented conservation practices on their land and has done missionary work for conservation and the district program.

Soil & Water Stewardship Public Speaking Contest

The Soil & Water Stewardship Public Speaking Contest is open to high school FFA students interested in conservation. The contest is aimed at broadening students' interest and knowledge of conservation and how individuals must depend on and take care of the world around them for survival. The contest is coordinated through the Texas FFA, with contests at the local, area and state level. Local winners compete in the 10 state FFA areas and those winners compete for the state title. The theme of the 2006 contest is “Water Wise.”

To prepare for the contest, students were to consult with their Agriculture Science teacher and work with their local soil and water conservation district. Students are encouraged to visit with their local SWCD to find out more about conservation practices in their area.

This project is a partnership between the Texas FFA, the Vocational Agriculture Teacher's Association of Texas, The Texas State Soil and Water Conservation Board, and the Association of Texas Soil and Water Conservation Districts. The State Winner of the Soil and Water Stewardship Public Speaking Contest is invited to attend the Annual State Meeting each year and asked to deliver their winning address.

Wildlife Alliance For Youth

The Wildlife Alliance for Youth (WAY) contests offer opportunities at the local district level for 4-H and FFA students to demonstrate their knowledge of the outdoors on wildlife habitat and management, wildlife laws, sportsmanship and other factual information on wildlife. The program offers scholarships to contest winners. It is a powerful tool for students to become involved in conservation and obtain an appreciation for wildlife.

Agriculture Science students, who compete in the WAY Contest, first acquire the foundational knowledge and skills for this event through the Agscience 381 - Wildlife and Recreation Curriculum. The WAY contests address the following nine subject areas in Wildlife and Recreation Management: Wildlife Plant Identification; Wildlife Plant Preferences; Wildlife Biological Facts; Wildlife Habitat; Habitat Management; Game Laws; Hunter and Boater Safety; Compass and Pacing; and Identification Techniques. Students should have an understanding of these subject areas before they compete.

The WAY contests are held in the five Texas State Soil and Water Conservation Board areas. Area IV (East Texas) holds their contest in the fall. Area V (North Central), Area I (Panhandle), Area II (West Texas) and Area III (South Texas) all hold their contests in the spring. Each team is certified to the area level by their local SWCD. The WAY State Contest is held each year in one of the geographical areas of the state. About 600 high school students participate in the statewide competition.

The TSSWCB is the lead agency in sponsoring and organizing the contests. The Association of Texas Soil and Water Conservation Districts, USDA- Natural Resources Conservation Service, Texas Parks and Wildlife Commission, Cooperative Extension service, and the Texas Education Agency, along with local soil and water conservation districts (SWCD), all partner in the success of the youth organization.

State Woodland Clinic and Contest

The Texas State Woodland Clinic and Contest is held annually in the month of April. It is a joint effort between local soil and water conservation districts, Stephen F. Austin University School of Forestry and the NRCS-USDA.

The contest is an opportunity for 4-H and FFA youth to demonstrate their expertise in different aspects of forestry management and skills in identification of needed practices and management techniques. Competition is between teams composed of four members representing either a 4-H Club or a FFA Chapter. Prior to the state contest several local districts conduct contests for 4-H Clubs and FFA Chapters within their district and the surrounding area.

The contest began in the late 1950s and was initiated by local SWCDs and timber industry personnel to develop forestry and woodland curriculum in schools in the commercial timber area of the state (East Texas Piney Woods). The clinic and contest have experienced widespread popularity and now has participation from outside of the commercial timber area on a regular basis. The state participation level

for teams averages around 55 teams per year, with the vast majority of teams being composed of FFA Chapters. Winners at the state level are eligible to participate in the four states regional woodland contest held each May in one of four states. Texas, Louisiana, Arkansas and Oklahoma host the regional contest on a rotational basis.

Regional Woodland Contest

The four states regional woodland contest is sponsored by soil and water conservation districts in each of the four states with program and technical support provided by USDA-NRCS and Resource Conservation and Development (RC&D), state organizations and industry personnel. The soil and water conservation districts in Texas hosted the first four states or southern regional woodland contest in 1984.

Each state is allowed to send a maximum of six teams to the regional contest. Each state has a competition that determines the six teams from that state that may enter in the regional contest. Those teams may be composed of individuals representing either a 4-H Club or an FFA Chapter.

Conservation Education Video Library

The Association of Texas Soil and Water Conservation Districts has established and updates a conservation related video library that is maintained by TSSWCB staff on their behalf for the benefit of local districts and educators. Currently there are 194 conservation-related videos in the library available to districts and teachers. No rental fees are assessed to those wishing to borrow the videos from the library. Borrowing privileges are for a length of two weeks and must be returned upon date specified by the librarian. Videos can be ordered through your local soil and water conservation district or by contacting the TSSWCB. From July to December, there have been 26 videos of various titles loaned out to districts and teachers across the state.

Conservation Education Models

The Nonpoint Source Pollution Watershed Flow Model allows students to understand how water supplies can become polluted from nonpoint sources through interactive demonstrations.

Nonpoint Source (NPS) Pollution Watershed Flow Model

The NPS model is a hands-on representation of a landscape that allows students to understand how water sources can become polluted from nonpoint sources. The plastic landscape structure has industrial, undeveloped, agricultural, and residential and roadway features complete with individual houses, trees, cars, tractors and cows. When "rain" falls on the model, the runoff flows into a city lake. Using various products to add color to the water, the model demonstrates how potential pollutants are picked up by run-off.

The model is a layout of a watershed that includes all the factors that may contribute to polluting our water. (Urban features such as: factories, parking lots, construction sites, lawn chemicals and golf courses and Rural features such as: forested land, dairies, feedlots, cropland and pastureland). To demonstrate how each type of potential pollutant can enter a water body Kool-Aid and cocoa are used to color “runoff”. Grape Kool-Aid is used to represent pollution from factories and oil from parking lots and

roads. Orange Kool-aid represents pollution from lawn chemicals, golf courses, and cropland and pastureland chemicals. Cocoa is used to represent pollution from construction sites, forested land, dairies and feedlots. The Kool-aid and Cocoa are sprinkled on the model in the areas that represent each type of pollutant. Once all the pollutants are sprinkled on the model a spray bottle with water is use to represent rainfall. As the pollutants get wet and start to runoff the students can see how the water carries them to the streams and into the lake where we get our drinking water. Once all the pollutants have run into the lake the students can see how these factors have the potential to make surface waters unattractive and unsafe. This demonstration leads to a discussion about how to protect the water quality and prevent our water from looking like the model.

TEXAS STATE SOIL AND WATER CONSERVATION BOARD
FISCAL YEAR 2006
BUDGET SUMMARY

	APPROPRIATION						
	13001 DISTRICT ASSISTANCE	13003 STATEWIDE MANAGEMEN T PLAN	13004 POLLUTION ABATEMENT PLANS	13007 BRUSH CONTROL PROGRAM	13800 INDIRECT ADMIN.	59001 CAPITAL BUDGET	TOTAL
Budget	$ 3,195,134.00	$ 155,100.00	$ 3,920,989.00	$ 1,874,176.00	$ 384,165.00		$ 9,529,564.00
Transfers In	$ 75,402.02	$ 26,026.86	$ 80,714.82	$ 6,273.86	$ 15,237.73	$ 48,200.00	$ 251,855.29
Transfers Out	$ 8,814.94	$ 6,897.15	$ 93,900.00	$ 27,700.00	$ 11,300.00	$ -	$ 148,612.09
Unexpended Bal. In	$ -	$ -		$ -	$ -	$ -	$ -
Unexpended Bal. Out	$ -	$ -		$ -	$ -	$ 15,135.03	$ 15,135.03
Cash Revenues (Fed Funds)	$ 348,177.27	$ 4,814,958.50	$ 158,707.06	$ 37,599.12	$ 43,265.62	$ -	$ 5,402,707.57
Expenditures	$ 3,538,964.78	$ 4,930,068.62	$ 2,962,049.41	$ 1,149,585.85	$ 426,507.15	$ 33,064.97	$13,040,240.78
Encumbrances	$ 63,745.55	$ 42,295.90	$ 1,063,928.41	$ 721,501.22	$ -	$ -	$ 1,891,471.08
Year End Lapse	$ 7,188.02	$ 16,823.69	$ 40,533.06	$ 19,261.91	$ 4,861.20	$ -	$ 88,667.88

Ongoing Clean Water Act, § 319(h) Grant Program Projects

	Title	Description	Lead	Start	End	Federal
00-01	Administration of the FY2000 CWA Section 319(h) Agricultural/Silvicultural NPS Management Program	Administer/manage the FY00 CWA 319(h) cooperative agreement between EPA and TSSWCB. Coordinate with project cooperators on administrative related issues and manage thefinancial aspects of each contract.	TSSWCB		2 /1 /2007	$151,477
00-02	Statewide NPS Pollution Management Project	Provide technical assistance for FY00 CWA 319(h) agricultural and silvicultural projects and ensure that projects meet all technical requirements and are successfully completed in a timely fashion.	TSSWCB		2 /1 /2007	$246,972
01-01	Administration of the FY2001 CWA Section 319(h) Agricultural/Silvicultural NPS Management Program	Administer/manage the FY01 CWA 319(h) cooperative agreement between EPA and TSSWCB. Coordinate with project cooperators on administrative related issues and manage the financial aspects of each contract.	TSSWCB		4 /1 /2008	$243,674
01-02	Statewide NPS Pollution Management Project	Provide technical assistance for FY01 CWA 319(h) agricultural and silvicultural projects and ensure that projects meet all technical requirements and are successfully completed in a timely fashion.	TSSWCB		4 /1 /2008	$308,390
01-15	WQMP Initiative for the Pork Industry	This objective of this project is to determine the steps needed to assist unpermitted nonpoint source pork producers in meeting the requirements of the Texas Water Code and Texas Administrative Code §321.47 through the successful development of water quality management plans (WQMPs) certified in accordance with Texas Agriculture Code §201.026. The project will consist of the development, implementation, and demonstration of WQMPs containing cost-effective alternative manure and wastewater storage facilities on two pork operations chosen by the Texas Pork Producers Association (TPPA).	TPPA	2 /3 /2006	8 /31/2007	$21,000
01-16	Environmental Regulatory Oversight	To provide the Texas State Soil & Water Conservation Board guidance and assistance related to state/federal environmental requirements for unpermitted animal feeding operations	TAMU - Eco-Environmental Services	2 /28/2006	2 /28/2007	$103,362

	Title	Description	Lead	Start	End	Federal
01-17	Extending TMDL Efforts in the NBR Watershed	This project will provide storm and routine monitoring of tributaries that contribute nonpoint source loadings to an impaired water body in order to assess agricultural NPS reductions. A final report will be developed assessing preexisting and post-TMDL implementation effects.	TIAER	3 /31/2006	3 /30/2008	$441,755
01-18	Seymour Supplemental	The main goal of this project is to demonstrate management practices that mitigate nitrate movement in the soil within the Seymour Aquifer region. This project will generate and extend new knowledge to enhance Best Management Practices (BMPs) for nutrient and irrigation management within the Seymour Aquifer through establishment of a subsurface drip irrigation system at the Chillicothe Research Station. This project will also provide additional resources for quantifying and verifying the effectiveness of BMP implementation in reducing nitrate levels within the aquifer.	TWRI	3 /15/2006	4 /1 /2007	$83,254
01-19	ENVIROCAST	The project Envirocast®: Increasing Nonpoint Source Pollution Prevention through Watershed Awareness in the Upper Trinity River Watershed will introduce environmental news and information at the local level specifically designed to raise citizen's understanding, appreciation, and treatment of environmental issues at the watershed scale. The project is expected to make environmental science accessible to a significantly greater audience than any previous education program in the North Central Texas region and the Upper Trinity River Watershed	NCTCOG	3 /1 /2006	3 /1 /2007	$390,000
01-20	TSSWCB NPS Team Support	Provide technical assistance for FY01 - FY05 (and beyond) CWA 319(h) agricultural and silvicultural projects and to ensure that the projects meet all technical requirements and are successfully completed in a timely fashion.	TSSWCB	3 /1 /2006	3 /1 /2007	$42,400
01-21	Maintaining Sediment Prevention through Repair of Floodwater-retarding structures in McCulloch County	To provide coordinated assessment between the TSSWCB, the McCulloch SWCD, and USDA-NRCS, with respect to implementation, and restoration of water quality in the Brady Creek and Deep Creek Watersheds located within McCulloch County. Repair floodwater-retarding structures in McCulloch County. To compile information on the repair success concerning the floodwater-retarding structures.	McCulloch SWCD	5 /1 /2006	1 /31/2008	$338,398

	Title	Description	Lead	Start	End	Federal
01-22	Improvement and Standardization of Laboratory Quality Assurance and Quality Control for Mehlich III Soil Test Methodology: Phase 1	The purpose of this project is to develop appropriate and standardized quality assurance/quality control and standard operating procedures (SOP) for use of the Mehlich III soil test extractant.	TCE			$228,097
02-01	Administration of the FY2002 CWA Section 319(h) Agricultural/Silvicultural NPS Management Program	Administer/manage the FY02 CWA 319(h) cooperative agreement between EPA and TSSWCB. Coordinate with project cooperators on administrative related issues and manage the financial aspects of each contract.	TSSWCB		4 /1 /2009	$304,132
02-02	Statewide NPS Pollution Management Project	Provide technical assistance for FY02 CWA 319(h) agricultural and silvicultural projects and ensure that projects meet all technical requirements and are successfully completed in a timely fashion.	TSSWCB		4 /1 /2009	$311,290
02-05	Little River Atrazine Remediation	Project will provide corn & sorghum producers in the Little River watershed with an opportunity to participate in water quality educational activities, technical assistance, and financial assistance for implementation of BMPs, to reduce atrazine runoff.	Central Texas SWCD	4 /9 /2002	8 /31/2007	$483,482
02-06	Little River Atrazine Remediation	Project will provide corn & sorghum producers in the Little River watershed with an opportunity to participate in water quality educational activities, technical assistance, and financial assistance for implementation of BMPs, to reduce atrazine runoff.	Liitle River - San Gabriel SWCD	4 /29/2002	12/31/2006	$328,482
02-11	Phosphorus Index	Determine the effects of selected soil properties on measured and predicted P runoff. Compare and correlate different soil test & soil solution extractable P levels to runoff P. Validate and/or modify the TX P Index as a predictive tool for classification of field sites relative to P loss potential.	TCE	9 /27/2002	3 /31/2007	$203,178
02-12	Three - Technicians	Three technicians will work under the direction of SWCDs, with assistance when needed from the TSSWCB regional offices, and NRCS to assist landowners in the development, implementation, &/or maintenance of WQMPs/BMPs. Technicians will be placed in three SWCDs and will work in adjacent SWCDs through cooperative agreements between the participating SWCDs.	Southmost, Shelby & Ellis-Prairie SWCD's	9 /11/2002	3 /31/2007	$695,389

	Title	Description	Lead	Start	End	Federal
02-13	Oso Creek/Oso Bay Watershed Implementation Assistance	Technical assistance will be provided by Nueces SWCD and TSSWCB Harlingen Regional Office to landowners within Oso Creek/Oso Bay Watershed to develop and implement WQMPs within the watershed.	Nueces SWCD & TAMU AREC (CC)	12/1 /2002	12/31/2006	$544,302
02-15	Water Quality Information/Education	Development of newspaper articles, informational brochures/flyers, display exhibits and promotional materials that include both water quality and water conservation messages to increase public awareness.	TSSWCB	3 /31/2002	3 /31/2008	$135,000
02-20	Saltwater Revegetation	Demonstration project designed to show conservation practices and different seeding and mulching methods to establish best grass cover.	Young SWCD	5 /4 /2005	3 /31/2007	$15,060
03-01	Administration of the FY2003 CWA Section 319(h) Agricultural/Silvicultural NPS Management Program	Administer/manage the FY03 CWA 319(h) cooperative agreement between EPA and TSSWCB. Coordinate with project cooperators on administrative related issues and manage the financial aspects of each contract.	TSSWCB		5 /3 /2010	$154,231
03-02	Statewide NPS Pollution Management Project	Provide technical assistance for FY03 CWA 319(h) agricultural and silvicultural projects and ensure that projects meet all technical requirements and are successfully completed in a timely fashion.	TSSWCB		5 /3 /2010	$245,109
03-04	Texas Silviculture BMP Effectiveness Study	Project will serve to quantify improvements in the quality of surface water in East Texas. Established TSSWCB WQMP Program will continue as part of this project to increase coordination among all entities involved.	TFS	7 /6 /2003	9 /30/2006	$367,620
03-05	Sam Rayburn WQMP Implementation Supplemental	Provide financial assistance to landowners for development/implementation of WQMPs. Foster coordinated technical assistance activities in Sam Rayburn Reservoir and Toledo Bend Reservoir watersheds between TSSWCB, SWCD, NRCS, and other interested individuals. Compile info. On the location/types of BMPs for WQMPs implemented.	Shelby SWCD	7 /1 /2003	3 /31/2007	$350,000
03-06	E.V. Spence Saltcedar	Provide technical and financial assistance toward implementation of targeted brush control activities for the purpose of reducing NPS loadings from saltcedar in the E.V. Spence Reservoir.	TSSWCB	11/1 /2003	3 /31/2008	$2,208,446

	Title	Description	Lead	Start	End	Federal
03-07	Bacteria Monitoring for Buck Creek	Monitor water quality as related to bacterial NPS pollution in Buck Creek by in-stream water sampling to facilitate TMDL definitions and guidance if needed.	TWRI	11/18/2003	3 /31/2007	$247,198
03-08	Nitrate Impacts in Groundwater	Project will design and implement a cover crop demonstration using three different winter cover crops and one bare soil.	TCE	11/24/2003	4 /30/2007	$98,341
03-09	Central Texas WQMP Implementation Supplemental	Project will provide additional funding for the ongoing implementation efforts in the Little River watershed. TSSWCB projects (02-5 & 02-6) entitled Central Texas Atrazine Remediation Project.	Little River - San Gabriel & Central Texas SWCD	10/31/2003	8 /31/2007	$424,080
03-10	Technologies for Animal Waste Pollution	Proposal provides for testing of new technologies designed for reducing water pollution associated with animal production systems, principally dairies. Focus is restricted to reducing P in dairy waste streams.	TWRI and BAEN	11/24/2003	3 /31/2008	$227,793
03-11	Leaf Beetle Demonstration	Project will demonstrate the usefulness of biologically treating saltcedar in the Colorado River Basin in an effort to reduce NPS pollution loadings resulting from saltcedar on agricultural lands.	ARS-USDA	1 /15/2004	3 /31/2007	$99,246
03-12	Navarro WQMP Implementation Supplemental	Project will provide additional funding for the ongoing implementation efforts in the Richland-Chambers Reservoir watershed.	Navarro SWCD	12/10/2003	8 /31/2007	$430,279
03-14	Edge of Field Monitoring	Project will monitor and evaluate the P reduction capabilities of a state of the art methane digester installed on a dairy facility in the North Bosque River watershed operating in conjunction with a CNMP.	BRA	11/18/2003	1 /31/2008	$96,081
03-15	Reducing Atrazine Losses in Central TX	Demonstrate effects of alternative tillage practices & atrazine application practices on protecting water quality by reducing atrazine losses; validate simulation model with measured atrazine losses.	TCE	11/24/2003	3 /31/2007	$101,271
03-16	Atrazine Modeling	Purpose of project is to determine, using a watershed model (SWAT), effects of applying BMPs on atrazine loadings to streams, rivers, and lakes in 7 watersheds.	NRCS-WRAT	3 /30/2004	11/30/2006	$158,400

	Title	Description	Lead	Start	End	Federal
03-18	Bosque Watershed Coordinator	Objectives include identifying and tracking progress of all pollution prevention projects and measures that are currently underway, tracking rules & regulations that affect operations of entities in the watershed, reviewing water quality data for trend I.D., providing opportunities for efficient/effective use of resources.	BRA	12/3 /2003	3 /31/2007	$190,815
04-01	Administration of the FY2004 CWA Section 319(h) Agricultural/Silvicultural NPS Management Program	Administer/manage the FY04 CWA 319(h) cooperative agreement between EPA and TSSWCB. Coordinate with project cooperators on administrative related issues and manage the financial aspects of each contract.	TSSWCB		6 /1 /2011	$154,220
04-02	Statewide NPS Pollution Management Project	Provide technical assistance for FY04 CWA 319(h) agricultural and silvicultural projects and ensure that projects meet all technical requirements and are successfully completed in a timely fashion.	TSSWCB		6 /1 /2011	$375,231
04-03	Athletic Field Topdressing as a Commercial Market for Compost from Dairy Manure (Field of Dreams Project)	Overall project goal: Gain commercial acceptance of blend of compost and sand for topdressing of athletic fields through demonstration on athletic fields.	Leon-Bosque RC&D	8 /4 /2004	3 /31/2007	$300,000
04-04	Field Validation of the Texas P Index in the Poultry Areas of Texas	Effects of selected soil properties in Sam Rayburn Reservoir and Lake O' the Pines watersheds and other poultry producing areas of the state in East & South Central Texas to measure & predict P runoff and compare and correlate Mehlich III and soil solution soluble P extracts to runoff P.	TCE	8 /18/2004	8 /31/2007	$390,657
04-05	Creekside Conservation Program	Protect Central Texas Highland Lakes by providing technical/financial assistance to landowners through the LCRA's Creekside Conservation Program. Assess NPS reductions resulting from Creekside Conservation Program.	LCRA	8 /3 /2004	8 /31/2007	$507,300
04-06	Modeling Nutrient Loads from Poultry Operations in the Toledo Bend & Sam Rayburn Reservoir Watersheds	Collect GIS, landuse, management, and measured data for selected watersheds. Where measured data is available, calibrate SWAT watershed model to measured flow, sediment and nutrients. Simulate nutrient load for current, pre and post conditions.	NRCS-WRAT	4 /11/2005	3 /31/2008	$96,000

	Title	Description	Lead	Start	End	Federal
04-07	Technical Assistance and Implementation in West Fork of the Trinity River Watershed	Provide technical assistance to landowners in developing and implementing WQMPs within the West Fork of Trinity River Watershed.	Jack SWCD	8 /12/2004	8 /31/2007	$100,000
04-08	WQMP Implementation Assistance in Falcon Reservoir Drainage Area in Zapata Co.	Coordinate technical assistance activities in the Falcon Reservoir Drainage Area in Zapata County between TSSWCB, SWCD, NRCS, & Kika De La Garza PMC. Inventory & map land uses & current mgmt. practices within the targeted watershed. Provide technical/financial assistance to landowners to aid in development/implementation of WQMPs.	Zapata SWCD	8 /17/2004	8 /31/2007	$461,290
04-09	Seymour Aquifer Water Quality Improvement	The main goal of this project is reduce the nitrate levels in the Seymour Aquifer. Project will provide irrigators in Haskell, Knox, and Jones counties with opportunity to participate in water quality educational activities, technical assistance, financial assistance for implementation of BMPs, in order to improve water quality in Seymour Aquifer.	Haskell, Knox and Jones SWCD	8 /19/2004	8 /31/2007	$764,054
04-10	Phytoremediation of excessively high phosphorus soils and subsequent reduced P runoff into North Bosque River	General objective of this project is to reduce surface water contamination in the north Bosque River from soil-applied P of dairy manure origin.	TAES - Stephenville	8 /30/2004	8 /31/2007	$238,859
04-11	Watershed Protection Plan Development for the Pecos River	Assess the Pecos River Basin and increase landowner and stakeholder involvement through educational efforts. Watershed Protection Plan based on the river basin assessment.	TWRI	8 /25/2004	8 /31/2007	$709,381
04-12	Little Wichita River Watershed Protection Plan	Project will provide assessment of existing and potential water quality problems associated with NPS pollution in the Little Wichita River Basin & provide watershed plan to improve and protect water quality within the basin.	TIAER	8 /15/2004	8 /31/2007	$90,090
04-13	Development of a Watershed Protection Plan for the Concho River Basin	Project will provide assessment of existing and potential water quality threats related to on-going NPS water pollution within the Concho River basin and will also provide a Watershed Protection Plan.	UCRA	8 /25/2004	8 /31/2007	$375,240

	Title	Description	Lead	Start	End	Federal
04-14	Assessment and Mitigation of Agricultural and Other NPS Activities in the Cypress Creek Basin.	Northeast Texas Municipal Water District Assessment Project and On-Site Sewage System Replacement Program. Primary goal of project is evaluate effectiveness of selected BMPs in reducing nutrient inputs to Big Cypress Creek and Lake O' Pines by documenting runoff quality from sites representing dominant soil & land use types, with/out BMPs. Implemented/replace failing septic systems.	NETMWD	8 /3 /2004	3 /31/2007	$442,805
04-15	Mathematical Model for Dispersal of Leaf Beetle, Diorhabda Elongata from Old World released in U.S. for Biological Control of Invasive Saltcedar	Goal of project is aid in Implementation Plan for Sulfate and Total Dissolved Solids (TMDLs) in the J.B. Thomas, E.V. Spence and O.H. Ivey Reservoirs by biological control of saltcedar in riparian areas along the Colorado River of Texas and its tributaries.	ARS-USDA	10/27/2004	8 /31/2007	$136,724
04-16	Nueces Basin Headwaters Stewardship Project	Using public education, project will concentrate on water quality concerns, impairments, and threats to water quality and streambed conditions in five headwater stream segments of the Nueces River Basin.	NRA	9 /1 /2004	8 /31/2007	$170,703
04-17	Plum Creek WPP	The purpose of this project is to coordinate the development of a Watershed Protection Plan for the Plum Creek Watershed and to facilitate beginning phases of implementation.	TCE	2 /24/2005	8 /31/2007	$440,503
04-18	BMP Verification in Richland-Chambers Watershed	Verify effectiveness of nutrient load reduction BMPs in the Richland-Chambers watershed.	TAES(BRC)	8 /1 /2005	7 /1 /2008	$237,722
04-19	Regional Watershed Coordinator	Successfully facilitate and coordinate watershed planning activities in the Wharton Regional Office service area through a pilot project.	TSSWCB		8 /31/2007	$145,249
05-01	Administration of the FY2005 CWA Section 319(h) Agricultural/Silvicultural NPS Management Program	Administer/manage the FY05 CWA 319(h) cooperative agreement between EPA and TSSWCB. Coordinate with project cooperators on administrative related issues and manage the financial aspects of each contract.	TSSWCB		9 /1 /2011	$104,480
05-02	Statewide NPS Pollution Management Project	Provide technical assistance for FY05 CWA 319(h) agricultural and silvicultural projects and ensure that projects meet all technical requirements and are successfully completed in a timely fashion.	TSSWCB		9 /1 /2011	$310,426

	Title	Description	Lead	Start	End	Federal
05-03	Ellis Prairie SWCD Project	Provide technical/financial assistance to qualifying producers on appropriate BMPs to reduce sediment, nutrient, and pesticide runoff and provide water quality educational events.	Ellis-Prairie SWCD	8 /1 /2005	8 /31/2008	$433,700
05-04	Silvicultural NPS Abatement	This project will reduce significant risks to water quality from silvicultural NPS pollution by implementing BMPs and increasing silvicultural NPS awareness by completing a statewide evaluation of silvicultural BMP implementation, providing technical assistance, education, coordination, and monitoring the effectiveness of forestry BMPs.	TFS	9 /1 /2005	8 /31/2008	$574,521
05-05	Watershed Education	The purpose of this project will be to develop and deliver an educational curriculum which functions to support the TSSWCB's effort to prepare a Watershed Protection Plan in the target watershed.	TWRI-TCE	9 /1 /2005	8 /31/2008	$358,041
05-06	PLAN	To educate 3rd party applicators of poultry litter to the environmental benefits of using proper application management techniques on new sites.	TCE	9 /1 /2005	8 /31/2008	$210,002
05-07	Impact of Proper Fertilizer	Implement fertilizer management practices on cultivated and pasture fields to demonstrate the importance of using proper management relating to application method, timing, and rate, and conduct demonstration/educational activities on the importance of proper organic fertilizer management.	TCE	9 /1 /2005	8 /31/2008	$186,352
05-08	Peach Creek Project	Developing, implementing and maintaining WQMPs and provide technical assistance to agricultural producers in the Peach Creek watershed.	Gonzales SWCD	9 /1 /2005	8 /31/2006	$465,123
05-09	Lake Granger Project	The Brazos River Authority will facilitate the development of a Watershed Protection Plan for the Lake Granger Watershed. This project will also provide the Little River-San Gabriel and Taylor SWCDs with funding for technical/ financial assistance to implement BMPs through conservation planning.	BRA	9 /1 /2005	8 /31/2008	$814,168
05-10	Arroyo Eduation Project	Educate agricultural producers on how to better produce and manage their acreage and support and promote associated programs implementing BMPs related to water quality protection.	TWRI	9 /1 /2005	8 /31/2008	$103,959

	Title	Description	Lead	Start	End	Federal
05-12	Arroyo WQMP Project	Provide technical assistance to landowners to aid in the development and implementation of a minimum of 78 WQMPs in the Arroyo Colorado Watershed.	Hidalgo SWCD	9 /1 /2005	8 /31/2008	$970,478
05-13	Composting Support - DMES	Project will coordinate compost activities in Bosque and Leon watershed among all entities involved. Provide financial/technical assistance to offset costs of transporting raw manure to compost facilities. Continuation of 00-8 & 02-8.	TSSWCB	9 /1 /2005	9 /30/2007	$228,000

TEXAS STATE SOIL & WATER CONSERVATION BOARD

SEMI - ANNUAL REPORT

TO THE

GOVERNOR,
LIEUTENANT GOVERNOR,
AND
SPEAKER OF THE HOUSE

JULY 1, 2007

Forward

In response to S.B. 1828 passed by the 78th Texas Legislature in Regular Session, 2003, the Texas State Soil and Water Conservation Board presents this review of its programs and activities. S.B. 1828 added §201.028 to the Texas Agriculture Code to provide that the TSSWCB shall prepare and deliver to the Governor, the Lieutenant Governor, and the Speaker of the House of Representatives a report, not later than January 1 and July 1 of each year, relating to the status of the budget areas of responsibility assigned to the State Board including outreach programs, grants made and received, federal funding applied for and received, special projects, and oversight of soil and water conservation district activities.

The FY07 Budget Summary is attached to this report. Information on grants made to local districts and other entities is incorporated within the program section it involves. Ongoing Federal grant program projects under the Clean Water Act are provided in another attachment.

The Texas State Soil & Water Conservation Board takes pride in the accomplishments and remarkable progress that have been made in soil and water conservation in this state. Often environmental successes are slow to be realized. We have realized and previously reported one success story that involves reducing the level of Atrazine in several water bodies, particularly the Aquilla Reservoir in the Hill County-Blackland SWCD.

However, we recognize there remains a continuing challenge and an ongoing need to ensure our land has the capability to produce food and fiber for future Texans. Because of changes in land use, ownership, technology, and population growth, the need for soil and water conservation programs will remain critical. Texas has a finite number of acres to provide for the needs and desires of citizens and visitors, and this places an ever-increasing demand on agricultural land. Farmers and ranchers face complex decisions concerning the best ways to manage and utilize the land available to them.

We believe that soil and water conservation programs must remain dynamic as land uses change and technology improves to make some conservation practices more capable of meeting demands on soil and water resources. We also maintain the belief that the purpose of the soil and water conservation program is to promote the wise use of our renewable natural resources and provide for the conservation and enhancement of the soil and water resources of this state through and by the dynamic decisions of local soil and water conservation districts which promotes the use of each acre of land within its capabilities and treating it according to its needs.

From the beginning, the Texas State Soil and Water Conservation Board and local soil and water conservation districts have formed an organizational framework through which various complex governmental conservation programs are delivered to local landowners and operators. This relationship has successfully been utilized to disseminate sound management techniques and practices to maintain individual productive land uses to provide for the needs of present and future generations.

To the landowners of Texas, the individual soil and water conservation district directors, and the many agencies and organizations assisting and working with our programs, we offer our sincere thanks.

Table of Contents

	Page
Historical Background	4
Organization	6
Staff	7
Soil and Water Conservation Districts	8
Annual State Meeting Of Soil and Water Conservation District Directors	10
Director Mileage and Per Diem	10
District Technical Assistance Funds	10
Agricultural Water Conservation Grant	10
District Conservation Assistance Program	10
Programs and Activities of the TSSWCB	11
Statewide Nonpoint Source Management Program	11
Total Maximum Daily Load Program	12
Bacteria Total Maximum Daily Load Task Force	15
Watershed Protection Plan Program	15
Water Quality Management Plan Program	18
Poultry Water Quality Management Plan Initiative	20
North Bosque River Watershed Initiative	23
Dairy Manure Export Support Program	24
Comprehensive Nutrient Management Plan Program	24
Statewide Bacterial Water Quality Impairment Reduction Initiative	25
Coastal Management Program	26
Background	26
Current Status	27
Information Technology	27
Public Information /Education Report	29
General Overview	29
2006 Summer Teacher Workshops	29
2006 Texas Conservation Awards Program	30
Soil & Water Stewardship Public Speaking Contest	32
Wildlife Alliance For Youth	32
State Woodland Clinic and Contest	33
Regional Woodland Clinic	33
Conservation Education Video Library	34
Conservation Education Models	34
Nonpoint Source (NPS) Pollution Watershed Flow Model	34
Brush Control Program Status Report	35
TSSWCB FY07 Budget Summary	Atch 1
Ongoing Clean Water Act, §319(h) Grant Program Projects	Atch 2

Historical Background

In the early history of the United States, those involved in agriculture often did not consider the conservation of soil and water resources. Land was cleared and put into farm production. When the land quit producing at a profitable level, the farmers merely moved on to new land farther west and started the process over again. There was no need to be concerned with soil conservation, as there was a seemingly unlimited supply of virgin land waiting to be tilled. This process continued through the 1800s and into the early 1900s. With the outbreak of World War I, farmers in the Great Plains states were encouraged to break out native grassland to grow wheat and other foodstuffs to feed the nation and the world. As a result of these and other unwise management practices and the fact that the farmlands were experiencing long periods of drought, the 1930s produced some of the worst dust storms the nation had ever seen. Clouds of dust rolled across the plains states sending dust storms through the south and into the nation's capital. At the same time, the nation was in the midst of a great economic depression. The federal government, seeking ways to put people back to work and encourage conservation, created the Civilian Conservation Corps and Soil Erosion Service. Through these mechanisms, demonstration projects were initiated to train technicians and to educate the public in ways to conserve soil resources. These programs were successful in putting people back to work, but lacked the local ties to establish lasting conservation programs.

One of the early day leaders in the national effort to control soil erosion was Hugh Hammond Bennett from North Carolina. After graduation from the University of North Carolina in 1903, Hugh Bennett took a job with the Bureau of Soils in the United States Department of Agriculture. Because of his experience, scientific knowledge and leadership ability, he was put in charge of the Soil Erosion Service when it was created in 1933. In 1935, P.L. (Public Law) 46 was passed creating the Soil Conservation Service within the U.S. Department of Agriculture and Hugh Bennett became the first Chief of the agency. He soon became internationally known for his accomplishments in conservation work.

With the help of Congressman Buchannan from Columbus, Texas, Hugh Bennett was able to persuade President Franklin Roosevelt that the soil resources of this nation were being wasted. He convinced the President that a Model Soil Conservation Act should be developed and sent to the governors of each state for passage by their state legislatures. The purpose of this Model Act would be to develop programs at the state and local level to control soil erosion.

In 1936, such a Model Act was sent to the governors with the endorsement of President Roosevelt. The Model Act, developed in Washington, was patterned after the Texas Wind Erosion Act, the Grass Conservation Acts in the Northern High Plains and certain water conservation district law.

In 1937 legislation was introduced in the Texas Legislature based on this Model Act. It is reported that as many as 25 different versions of this soil conservation law were considered before a final version was passed. There was much heated discussion of the proposed legislation. When the final version was adopted, the bill contained many undesirable features. The law would have set up Soil Conservation Districts automatically on a county basis and made County Commissioners Courts the governing body. A portion of the county tax was to be used to finance the program and county agricultural agents were to be the administrative officers.

A number of agricultural leaders from across the state had, by this time, become concerned about the newly passed legislation. It was their opinion that, if the responsibility for installing and maintaining conservation measures lay in the hands of the land owners, the control of such a program should also be

in their hands. As a result of these and other concerns, a group of landowners led by V.C. Marshall of Heidenheimer, Texas, convinced the Governor to veto the 1937 legislation.

Hard feelings among agricultural leaders resulted from the attempt to pass this soil conservation law. Under the leadership of Mr. Marshall, a concerted effort was made during the interim between legislative sessions to heal the old wounds and to put together a version of a law that would be generally accepted by the farmers and ranchers of Texas. Mr. Marshall organized a committee of leaders from across the state to promote the passage of a new Soil Conservation Law. He traveled many miles at his own expense seeking the views of agricultural leaders and promoting the idea of the Soil Conservation District Program.

The key points Mr. Marshall felt should be included in the new law were that (1) farmers and ranchers should determine whether or not a Soil Conservation District was needed and hold a local option election prior to the establishment of the district; (2) the program should be controlled by landowners; and (3) the Soil Conservation Districts should have no taxing authority or the power of eminent domain.

In 1939 the Texas Legislature passed H.B. (House Bill) 20 which incorporated those features and was the first Soil Conservation Law for the state. The law created the State Soil Conservation Board and allowed for the creation of the Soil Conservation Districts. Mr. Marshall was elected as the first Chairman of the Soil Conservation Board and later resigned to become the first Executive Director of the agency.

On April 30, 1940, the Secretary of the State issued Certificates of Organization for the first 16 Soil Conservation Districts paving the way for the program we now operate. Today, Texas has 217 local soil and water conservation districts that encompass more than 99% of the state.

As previously mentioned, the Model Act endorsed by President Roosevelt was in part patterned after the Texas Wind Erosion Act. Texas was already making attempts to address soil conservation as a result of the "Dust Bowl" days of the 1930s. The 44th Legislature in 1935 passed legislation authorizing the establishment of Wind Erosion Conservation Districts. This law provided for the creation of districts to "conserve the soil by prevention of unnecessary erosion caused by winds, and the reclamation of lands that have been depreciated or denuded of soil by reasons of winds." Although a number of Wind Erosion Control Districts were created, the passage of the Soil Conservation District Law in 1939 resulted in those districts becoming dormant.

In 1975, Governor Dolph Briscoe, by Executive Order, designated the TSSWCB as lead agency to assume the planning and management responsibility for control of agricultural and silvicultural nonpoint source pollution as required by the Federal Water Pollution Control Act.

In 1981 the 67th Legislature passed H.B. 1436, which for the first time codified the agricultural laws of Texas. Title 7, Chapter 201 of this code contains the portion pertaining to Soil and Water Conservation.

In 1985 the 69th Legislature passed S.B. 1083 creating a Brush Control Program in Texas and granting new powers and responsibilities, without funding, to the TSSWCB and Soil and Water Conservation Districts under Chapter 203 of the Agriculture Code. In 1999, the TSSWCB received its first appropriation in the FY00-01 biennium to control water-depleting brush and trees, such as cedar and mesquite. The program received $9.1 million to establish a pilot project in the North Concho Watershed.

In 1993, the 73rd Legislature passed S.B. 503 which named the TSSWCB the lead agency to address water quality issues relating to runoff from diffused, or nonpoint sources resulting from agricultural and forestry operations. In 1999, the Legislature expanded the TSSWCB's environmental mission and appropriated money to address water pollution from nonpoint sources under a separate, federally mandated program.

The leaders who framed the Texas Soil and Water Conservation Law in 1939 recognized that landowners and operators of private land constitute the basic resource for the conservation of our renewable natural resources. Without the support and willing participation of private landowners and operators in the development and implementation of soil and water conservation programs there is little hope of success. Local soil and water conservation districts led by farmers and ranchers who know the land and the local conditions and problems have the means to develop conservation plans that address each acre of land specific to its needs to solve or reduce the severity of its problems.

Organization

Since inception, the TSSWCB has been governed by five board members, elected by delegates from each of five regions of the state's 217 local soil and water conservation districts. Elections occur annually at regional conventions of the local soil and water conservation districts, with members serving two-year staggered terms. However, with the enactment of S.B. 1828 by the 78th Legislature, two Governor appointees join the five elected board members to create a seven-member board. The two Governor appointed positions are listed below. The term of one member appointed by the Governor expires February 1 of each odd-numbered year, and the term of the other member appointed by the Governor expires on February 1 of each even-numbered year.

Elected State Board members must be 18 years of age or older; hold title to farmland or ranchland; and be actively engaged in farming or ranching. The Governor appointees must be actively engaged in the business of farming, animal husbandry, or other business related to agriculture and wholly or partly owns or leases land used in connection with that business; and may not be a member of the board of directors of a conservation district.

The State Board elects its own Chair and generally meets every odd month, unless specific programs or issues require more immediate action. The following list shows the current Board members and shows which State Board Region they represent.

Texas State Soil and Water Conservation Board

Member Name	**Region**	**Term**	**Residence**
Aubrey L. Russell	#1	May 1, 2007 – May 5, 2009	Panhandle
Reed Stewart	#2	May 2, 2006 – May 6, 2008	Sterling City
José O. Dodier, Jr.	#3	May 1, 2007 – May 5, 2009	Zapata
Jerry D. Nichols	#4	May 2, 2006 – May 6, 2008	Nacogdoches
Barry Mahler	#5	May 1, 2007 – May 5, 2009	Iowa Park
Larry D. Jacobs	Appointed	June 20, 2005-February 1, 2006	Montgomery
Joe L. Ward	Appointed	June 20, 2005-February 1, 2007	Telephone

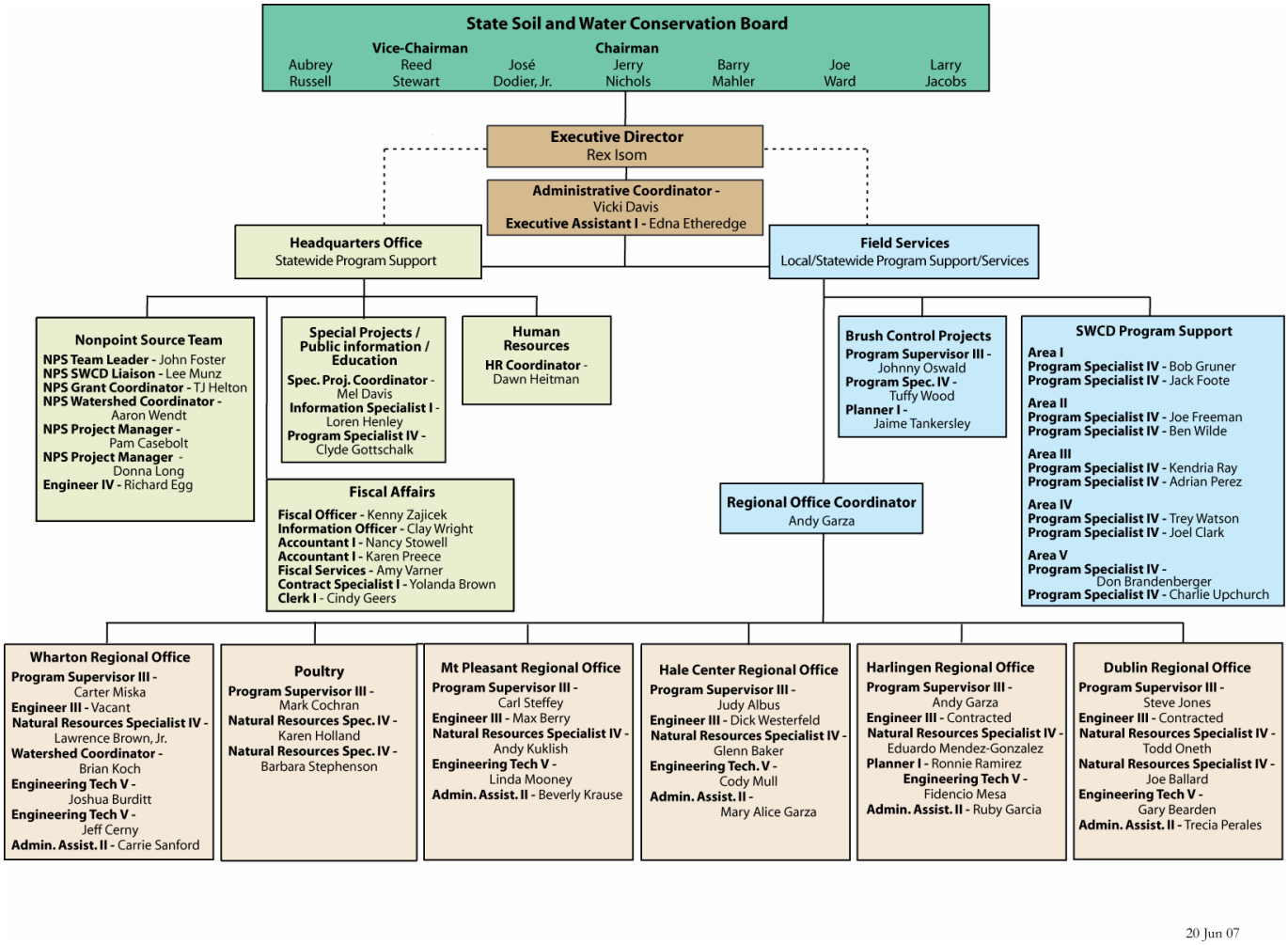
Staff

Mr. Rex Isom was named as the Executive Director in January 2004 and continues to carry out the directives of the State Board and directing staff efforts.
We emphasize our agency philosophy as stated in our Strategic Plan, "The State Soil and Water Conservation Board will act in accordance with the highest standards of ethics, accountability, efficiency, and openness. We affirm that the conservation of our natural resources is both a public and a private benefit, and we approach our activities with a deep sense of purpose and responsibility." Mr. Isom, as Executive Director, is leading the agency in that direction and expects all employees to follow that lead.

As of June 1, 2007 the TSSWCB employed 62 staff, 20 of which work in the Temple headquarters. The remaining employees are field staff, either working out of their homes or located in seven satellite offices; five regional offices and two program specific offices, located throughout the state. Due to difficulty in recruiting engineers, two field engineer positions remain contracted. The following organization chart shows the agency's current structure.

The current structure of the TSSWCB reflects efforts to maintain more personnel in the field and away from headquarters for a 68% to 32% ratio of Field personnel to Headquarters personnel.

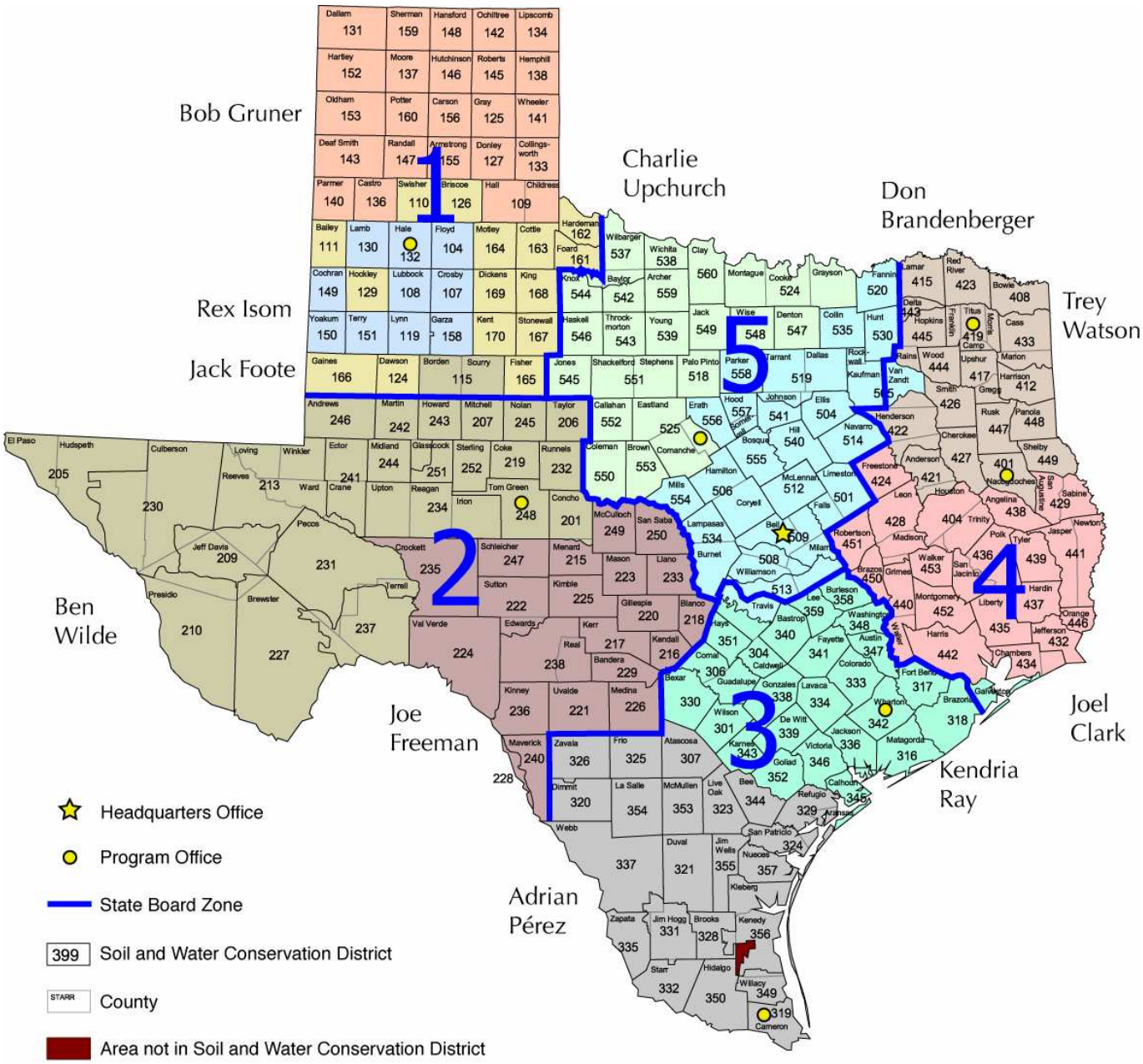
The regional office staff along with the program specific staff provides on-site technical assistance to farmers and ranchers. The field staff serves as a liaison between the TSSWCB and local districts. The field staff also provides assistance to local districts and district employees concerning operations, programs, and activities. The regional office staff and the program specific staff coordinates with the Texas Commission on Environmental Quality (TCEQ), Texas Cooperative Extension (TCE), and the USDA's Natural Resource Conservation Service (NRCS) to provide technical assistance to landowners to implement Water Quality Management Plans (WQMPs).



Soil and Water Conservation Districts

The TSSWCB performs many of its activities in coordination with the state's 217 local soil and water conservation districts. These local districts are political subdivisions of the state, established through local option elections of agricultural landowners. Districts generally reflect county boundaries, but may also follow river basin or watershed boundaries, depending on the desires of the local landowners.

The following soil and water conservation district map shows the current 217 local districts that cover almost the entire state. That portion of the state not in a soil and water conservation district is in Kenedy County and contains the privately owned King Ranch. The map also shows the grouping of the districts into the five State Board Districts that respectively elect a State Board member and shows the field staff that is assigned to work with each district within a specific area.



Landowners within these local districts elect the five district directors that comprise the districts governing body or board of directors. This board of directors administers the programs and activities of the district. Representatives of the districts within each region then elect the members of the State Board through a series of convention style-elections.

Districts do not have taxing authority and rely on locally generated funds from various activities and programs, federal assistance, county assistance, and state assistance from the TSSWCB. The USDA Natural Resource Conservation Service (NRCS) provides most of the federal assistance available to districts and through cooperative agreements provides technical assistance to farmers and ranchers requesting assistance from the district.

Annual State Meeting Of Soil And Water Conservation District Directors

The Annual State Meeting of Soil and Water Conservation District Directors, required in §201.081, Texas Agriculture Code, convened in Arlington October 2006. There were 98 districts represented, with 255 individual district directors that registered for the meeting. The total registration was 593.

For the 2007 calendar year, the state meeting is scheduled for October 22-24 in Waco.

Director Mileage And Per Diem

Due to the reductions in staff at the headquarters office, director mileage and per diem claims are now managed directly by districts. The TSSWCB sent each district 75% of their approved allocation (grant). The remaining 25% will be used as a pool for any expenses not covered through the initial allocation (grant). Field staff will approve each claim before payment to ensure claims are accurate and comply with state statutes and guidelines. The FY06 state appropriation for this program is $325,000.00.

District Technical Assistance Funds

The TSSWCB 2006-2007 Appropriation revised the allocation method for technical assistance funds. On September 1, 2005, the TSSWCB began disbursing technical assistance payments on a reimbursing basis only. The FY06 state appropriation for this program is $1,036,241.00.

Agricultural Water Conservation Grant

The TSSWCB, on behalf of local soil and water conservation districts, applied to the TWDB for grant funding to continue the agricultural water conservation program. Soil and water conservation districts provide technical and planning assistance to agricultural producers for implementing conservation best management practices on their farms and ranches.

The TSSWCB received an agricultural water conservation grant of $100,000 from the TWDB for fiscal year 2007. The funds from the grant were allocated to eligible soil and water conservation districts to support technical assistance in planning agricultural water conserving best management practices on farms and ranches. Eligible best management practices are those that directly or indirectly produce water savings and those that reduce erosion, a cause of increased sedimentation of Texas' surface water reservoirs. The grant award of $100,000 supplements $100,000 in technical assistance funding allocated to local soil and water conservation districts for support of planning and implementing conservation best management practices on farms and ranches.

A total of 199 soil and water conservation districts statewide are eligible and willing to participate in this program for FY 07. This is the third year the TSSWCB has participated in this grant program. The assistance performed by these soil and water conservation districts in previous years has resulted in an estimated 870,000 ac-ft potential water savings for the State.

District Conservation Assistance Program

District Conservation Assistance funds are appropriated to the TSSWCB from general revenue funds. Of the 217 local soil and water conservation districts, 216 districts request to receive an allocation (grant) from these funds. Local districts receive these funds as a dollar for dollar match for money that they

generate locally through various activities. The local districts use this money to pay operational expenses. The FY06 state appropriation for this program is $916,364.00.

Programs & Activities of the TSSWCB

The services and programs provided by the TSSWCB target rural Texas farmers and ranchers, but the results of these services benefit all Texans. For example, many of the flood control structures maintained by soil and water conservation districts serve to protect heavily populated areas from flood damage, and also prevent sediment from building up in suburban drinking water supplies. Another example is the use of best management practices, implemented through TSSWCB-certified water quality management plans, to prevent pesticides, nutrients, bacteria and other contaminants from impairing Texas waters.

The agency is responsible for numerous natural resource conservation efforts, the most prominent of which is serving as the lead state agency for the prevention, management, and abatement of nonpoint source pollution resulting from agricultural and silvicultural (forestry-related) activities. To fulfill this mandate, the agency jointly administers the Texas Nonpoint Source Management Program. As a result, the majority of the agency's programs and services aim to improve and protect water quality, including the Water Quality Management Plan Program, the Clean Water Act §319(h) Nonpoint Source Grant Program, the Total Maximum Daily Load Program and the Watershed Protection Plan Program.

The TSSWCB is also responsible for water conservation, or water quantity. The major existing program addressing water conservation is the Texas Brush Control Program, although the agency is conducting preliminary work on a new program that would provide assistance to Texas landowners who irrigate cropland from both ground and surface water sources. The Water Conservation Implementation Task Force, created by the 78th Texas Legislature through Senate Bill 1094 introduced by Senator Duncan, issued a final report to the 79th Texas Legislature recommending a state cost-share program be implemented through the TSSWCB to assist landowners in implementing best management practices that conserve water resources. If the agency is asked by the Legislature to fully develop the new program, it would likely be patterned after the Water Quality Management Plan Program created by Senate Bill 503 in 1993.

Other responsibilities include prevention of soil erosion, control of floods, maintaining the navigability of waterways, the preservation of wildlife, protection of public lands, and providing information to landowners regarding the jurisdictions of the TSSWCB and the Texas Commission on Environmental Quality (TCEQ) related to nonpoint source pollution. The TSSWCB has no regulatory functions; all of the agency's programs and services are voluntary in nature.

Statewide Nonpoint Source Management Program

Congress enacted Section 319(h) of the Clean Water Act in 1987, establishing a national program to control nonpoint sources of water pollution. Through §319(h), federal funds are appropriated to the U.S. Environmental Protection Agency (EPA) and then granted to the states for the development and implementation of the State's Nonpoint Source Management Program. Texas' share of the §319(h) funding is divided evenly between the TCEQ and TSSWCB.

An approved management program is a requirement for receiving §319(h) grant funding. The *Texas Nonpoint Source Management Program* is jointly administered by the TSSWCB and the TCEQ. The

Program was recently revised for 2005-2010 and, after going through extensive public comment and review, was approved by the TSSWCB on September 15, 2005 and by TCEQ on October 26, 2005. The *Program* was certified by the Attorney General's Office and was submitted by the Governor to EPA on December 15, 2005. The *Program* was approved by EPA on February 10, 2006.

TSSWCB currently has 76 active, ongoing §319(h) projects (Attachment 2). The $20 million invested in these projects through Clean Water Act §319(h) Nonpoint Source Grants between 2001 and 2006 is being utilized to abate NPS pollution from poultry operations and dairies, to abate runoff of atrazine from cropland, to control saltcedar, for watershed planning, for groundwater quality improvement, for assessing sources of bacteria, for hosting educational programs for the forest industry, and many other projects (Figure 1). Quarterly reports for ongoing projects were received on January 15, 2007 and April 15, 2007. To date, project reports have been received for 100% of the projects. These reports are entered semi-annually into EPA's Grants Reporting and Tracking System.

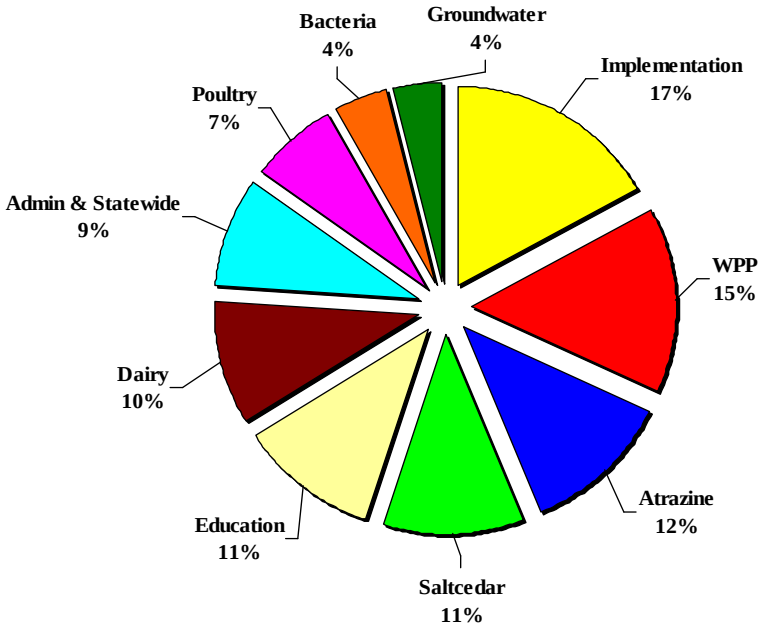


Figure 1.0 TSSWCB active Clean Water Act §319(h) grants for FY 2001 – FY 2006.

For more information on the TSSWCB Statewide Nonpoint Source Management Program, visit our website at http://www.tsswcb.state.tx.us/managementprogram.

Total Maximum Daily Load Program

The federal Clean Water Act requires Texas, and other states, to identify lakes, rivers, streams and estuaries failing to meet or not expected to meet water quality standards and not supporting their designated uses (swimming, drinking, aquatic life, etc.). This list of impaired waterbodies is known as the *Texas 303(d) List* and must be submitted to the EPA for review and approval every two years by TCEQ.

The State must then establish a Total Maximum Daily Load (TMDL) for waterbodies identified on the *303(d) List*. A TMDL defines the maximum amount of a pollutant that a waterbody can assimilate on a daily basis and still meet water quality standards. The pollution reduction goal set by the TMDL is necessary to restore attainment of the designated use of the impaired waterbody. The maximum amount

of pollutant is determined by conducting a detailed water quality assessment that provides the information for a TMDL to allocate pollutant loads between point sources and nonpoint sources. It also takes into account a margin of safety, which reflects uncertainty and future growth.

Based on the environmental target of the TMDL, an Implementation Plan (I-Plan) is then developed that prescribes the measures necessary to mitigate anthropogenic (human-caused) sources of that pollutant in that waterbody. The I-Plan specifies limits for point source dischargers and recommends best management practices for nonpoint sources. It also lays out a schedule for implementation. Together, the TMDL and the I-Plan serve as the mechanism to reduce the pollutant, restore the full use of the waterbody and remove it from the *303(d) List*. EPA must approve the TMDL, but the I-Plan only requires State approval.

With authority as the lead agency in Texas for planning, implementing, and managing programs and practices for preventing and abating agricultural and silvicultural nonpoint source pollution, TSSWCB shares responsibility with TCEQ in implementing the Texas TMDL Program. TSSWCB is committed to funding, through federal grants and state appropriations, and collaborating on TMDL projects encompassing monitoring, assessment, modeling, planning, education and implementation (Figure 2).

On September 27, 2006, at a joint meeting, the TSSWCB and TCEQ renewed this partnership and approved a revised *Memorandum of Agreement on Total Maximum Daily Loads, Implementation Plans, and Watershed Protection Plans*. This framework for collaboration between the two agencies describes the programmatic mechanisms employed to develop and implement TMDLs and I-Plans.

On May 24, 2007, the TSSWCB approved the *TSSWCB Policy on Total Maximum Daily Loads*.

TSSWCB is engaged in implementation activities that support approved I-Plans addressing agricultural or silvicultural nonpoint source load reductions described in approved TMDLs:

- Aquilla Reservoir – Atrazine (Approved 2002)
- E.V. Spence Reservoir – Salinity (Approved 2001)
- North Bosque River – Nutrients (Approved 2002)

TSSWCB is collaborating with stakeholders on the development of I-Plans for approved TMDLs that contain agricultural or silvicultural nonpoint source load reductions:

- Adams and Cow Bayous – Bacteria, Dissolved Oxygen, and pH (Approved 2007)
- Colorado River below E.V. Spence Reservoir – Salinity (Approved 2007)
- Lake O' the Pines – Dissolved Oxygen (Approved 2006)

TSSWCB is actively involved in the development of TMDLs for waterbodies impaired due to known or suspected agricultural or silvicultural nonpoint source pollution:

- Arroyo Colorado – Dissolved Oxygen
- Atascosa River – Bacteria
- Clear Creek – Bacteria
- Copano Bay and Aransas and Mission Rivers – Bacteria
- Dickinson Bayou – Bacteria and Dissolved Oxygen
- Elm and Sandies Creeks – Bacteria and Dissolved Oxygen
- Gilleland Creek – Bacteria
- Guadalupe River above Canyon Lake – Bacteria

- Leon River below Proctor Lake – Bacteria
- Lower San Antonio River – Bacteria
- Oso Bay and Oso Creek – Bacteria
- Peach Creek – Bacteria
- Upper Oyster Creek – Bacteria and Dissolved Oxygen
- Upper Trinity River – Bacteria

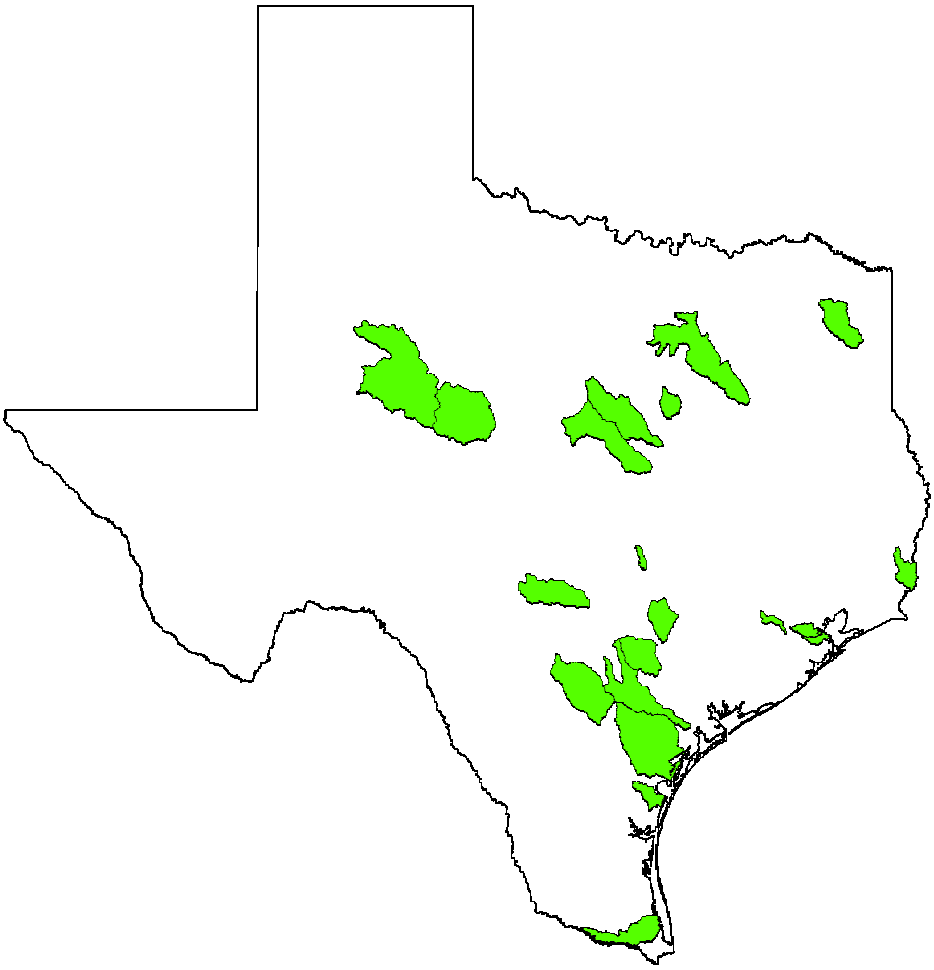


Figure 2 – Map of watersheds where TSSWCB is engaged in developing or implementing TMDLs and I-Plans.

In order to abate agricultural and silvicultural NPS pollution, TMDLs and I-Plans will implement components of other TSSWCB Programs, such as the Water Quality Management Plan Program or the Brush Control Program. Additionally, the Clean Water Act §319(h) Nonpoint Source Grant Program can serve as a funding source to implement the agricultural and silvicultural components of I-Plans. These programs are described in detail in other sections of this Semi-Annual Report.

For more information on the TSSWCB Total Maximum Daily Load Program, visit our website at http://www.tsswcb.state.tx.us/tmdl.

Bacteria Total Maximum Daily Load Task Force

On September 27, 2006, at a joint meeting, the TSSWCB and the TCEQ established a joint technical Task Force on Bacteria TMDLs. The Task Force was charged with:

- examining approaches other states use to develop and implement bacteria TMDLs,
- making recommendations on cost-effective and time-efficient methods for developing TMDLs,
- making recommendations on effective approaches for developing I-Plans,
- evaluating the variety of models and bacterial source tracking methods available for developing TMDLs and I-Plans and recommending under what conditions certain methods are more appropriate, and
- developing a roadmap for further scientific research needed to reduce uncertainty in what we know about how bacteria behave under different water conditions in Texas.

Appointed members of the Task Force include:

- Dr. Allan Jones, Texas Water Resources Institute (chair),
- Dr. George DiGiovanni, Texas Agricultural Experiment Station–El Paso,
- Dr. Larry Hauck, Texas Institute for Applied Environmental Research,
- Dr. Joanna Mott, Texas A&M University–Corpus Christi,
- Dr. Hanadi Rifai, University of Houston,
- Dr. Raghavan Srinivasan, Texas A&M University, and
- Dr. George Ward, University of Texas at Austin.

The Task Force was given 120 days to complete their assessment and report back to the Commission and Board. The Task Force held three meetings/teleconferences (October 24, 2006, November 27, 2006, and December 18, 2006) to develop their recommendations (one meeting each hosted at TWRI, TCEQ and TSSWCB). All Task Force materials, including background resource materials, summaries of meetings, all drafts of the Report, and all comments received on the Report, are available at http://twri.tamu.edu/bacteriatmdl/. Approximately 50 Expert Advisors with expertise on bacteria related issues had significant opportunity to provide input and guidance to the Task Force during the process. This group included non-governmental organizations and local, state, and federal agencies. The 3rd draft of the Report was delivered to the TSSWCB and the TCEQ on January 25, 2007, precisely 120 days. A 4th draft correcting inconsistencies in the Executive Summary and the body of the Report was published June 4, 2007.

The TSSWCB and the TCEQ will convene for a joint meeting on June 29, 2007 to consider the Report from the joint Task Force. The agencies will discuss future actions to be taken as a result of the recommendations in the Report.

Watershed Protection Plan Program

Watershed Protection Plans (WPPs) are locally-driven projects that serve as a mechanism for addressing complex water quality problems that cross multiple jurisdictions. WPPs are coordinated frameworks for implementing prioritized and integrated water quality protection and restoration strategies driven by environmental objectives. Through the WPP process, TSSWCB encourages stakeholders to holistically address all the sources and causes of impairments and threats to both surface and ground water resources within a watershed.

WPPs serve as tools to better leverage the resources of local governments, state and federal agencies, and non-governmental organizations. WPPs integrate activities and prioritize implementation projects based upon technical merit and benefits to the community, promote a unified approach to seeking funding for implementation, and create a coordinated public communication and education program. Developed and implemented through diverse, well integrated partnerships, a WPP assures the long-term health of the watershed with strategies for protecting unimpaired waters and restoring impaired waters.

WPPs have a variety of ingredients and can take many forms. TSSWCB-sponsored WPPs are consistent with guidelines promulgated by EPA in 2003. These guidelines describe nine elements fundamental to a potentially successful plan. The TCEQ also sponsors WPPs based on EPA's guidelines. EPA requires certain expenditures through §319(h) grants to be in accordance with a WPP.

TSSWCB provides technical and financial assistance to local stakeholder groups to develop and implement WPPs through several mechanisms (Figure 3). One, a TSSWCB Regional Watershed Coordinator facilitates the WPP process in watersheds throughout their service area. Currently, the Wharton Regional Office is piloting this method in southeast and south central Texas. Two, through §319(h) grants, entities are provided financial assistance necessary to facilitate the WPP process in specific watersheds with significant agricultural or silvicultural nonpoint source pollution. Three, TSSWCB staff provide technical assistance in developing WPPs which are funded and facilitated by other entities, such as the TCEQ.

Partnerships with Texas Cooperative Extension, Texas Water Resources Institute and TCEQ are resulting in the development of training programs for local stakeholder groups and watershed coordinators. The Texas Watershed Steward Program supports the development and implementation of WPPs by promoting a sustainable proactive approach to managing water quality at the local level and by empowering individuals to take leadership roles in the stewardship of water resources. The Texas Watershed Planning Short Course will deliver training to watershed coordinators and water professionals which is needed to ensure WPPs are adequately planned, coordinated, implemented and results properly assessed and reported.

On September 27, 2006, at a joint meeting, the TSSWCB and TCEQ approved a revised *Memorandum of Agreement on Total Maximum Daily Loads, Implementation Plans, and Watershed Protection Plans.* This framework for collaboration between the two agencies describes the programmatic mechanisms employed to develop and implement WPPs.

WPP development projects currently sponsored by TSSWCB (red in Figure 3) have significant agricultural or silvicultural nonpoint source pollution components and are all funded through §319(h) grants:

- Buck Creek – Texas Agricultural Experiment Station and Texas Water Resources Institute
- Concho River – Upper Colorado River Authority
- Lake Granger – Brazos River Authority and Texas Agricultural Experiment Station
- Leon River – Brazos River Authority
- Pecos River – Texas Cooperative Extension and Texas Water Resources Institute
- Plum Creek –Texas Cooperative Extension

While WPP development projects sponsored by TCEQ (purple in Figure 3) have significant water quality issues related to urban nonpoint source pollution or permitted wastewater treatment, most, to varying degrees, have agricultural or silvicultural nonpoint source pollution components:

- Arroyo Colorado – Texas Water Resources Institute
- Bastrop Bayou – Houston-Galveston Area Council
- Caddo Lake – Northeast Texas Municipal Water District
- Dickinson Bayou – Texas Sea Grant
- Lake Granbury – Brazos River Authority and Texas Water Resources Institute
- Hickory Creek – City of Denton
- Upper San Antonio River – San Antonio River Authority

There are several other watershed planning projects across the state which are funded and sponsored by entities and agencies other than TSSWCB or TCEQ (orange in Figure 3). These third-party WPPs may or may not adequately satisfy EPA's nine elements:

- Armand Bayou – Texas Sea Grant and Trust for Public Land
- Barton Springs – Barton Springs/Edwards Aquifer Conservation District and City of Dripping Springs
- Benbrook Lake – Texas Water Resources Institute and Tarrant Regional Water District
- Lower and Middle Brazos River – Brazos River Authority
- Bridgeport Reservoir – Texas Water Resources Institute and Tarrant Regional Water District
- Caney Creek – Caney Creek Conservation Foundation
- Cedar Creek Reservoir – Texas Water Resources Institute and Tarrant Regional Water District
- Upper Colorado River – Colorado River Municipal Water District
- Eagle Mountain Reservoir – Texas Water Resources Institute and Tarrant Regional Water District
- Nueces River – U.S. Army Corps of Engineers
- Richland-Chambers Reservoir – Texas Water Resources Institute and Tarrant Regional Water District
- Stillhouse Hollow Lake – Lake Stillhouse Hollow Cleanwater Steering Committee, Inc.

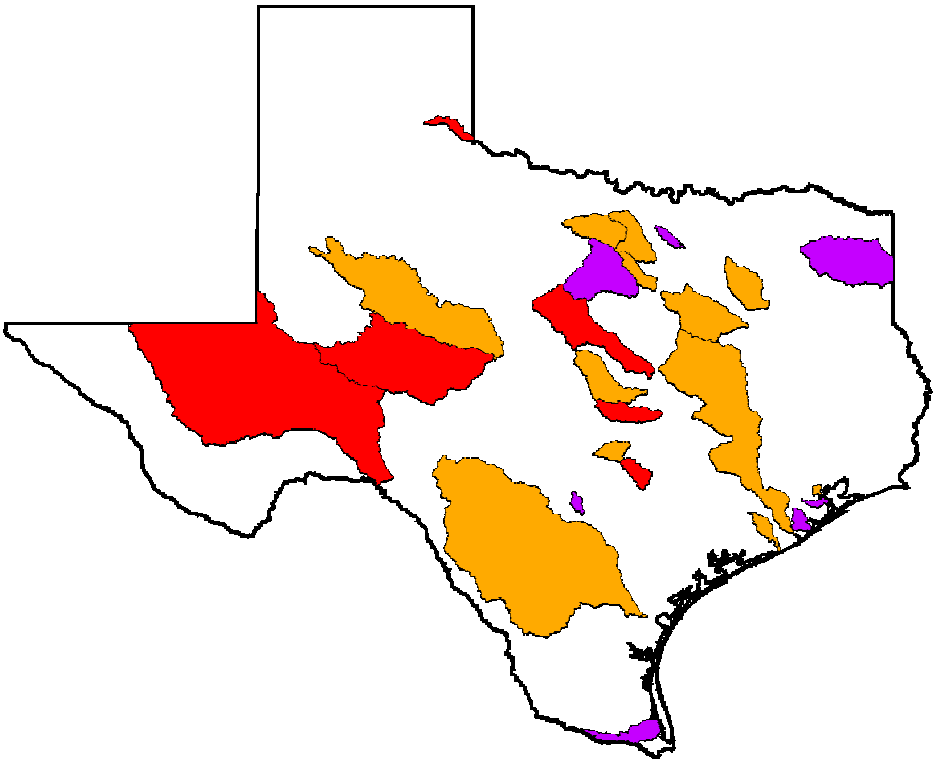


Figure 3 – Map of watersheds where TSSWCB is engaged in developing or implementing WPPs.

In order to abate agricultural and silvicultural NPS pollution, WPPs will implement components of other TSSWCB Programs, such as the Water Quality Management Plan Program or the Brush Control Program. Additionally, the Clean Water Act §319(h) Nonpoint Source Grant Program can serve as a funding source to implement the agricultural and silvicultural components of WPPs. These programs are described in detail in other sections of this Semi-Annual Report.

For more information on the TSSWCB Watershed Protection Plan Program, visit our website at http://www.tsswcb.state.tx.us/wpp.

Water Quality Management Plan Program

In 1993, the Texas Legislature passed Senate Bill 503 that directed the TSSWCB to implement Water Quality Management Plans (WQMPs) in Texas. The agency has implemented more than 6000 WQMPs since the inception of the program.

The WQMP Program is administered from five Regional Offices around the state. A poultry WQMP office will open in Nacogdoches in January 2005. The Regional Offices are:

Dublin Regional Office
Hale Center Regional Office
Harlingen Regional Office
Mount Pleasant Regional Office
Wharton Regional Office
Poultry Program Office (Nacogdoches)

A WQMP is a site-specific conservation plan developed through (and approved by) SWCDs for agricultural or silvicultural lands. The plan includes appropriate land treatment practices, production practices, management measures, technologies or combinations thereof. The purpose of WQMPs is to achieve a level of pollution prevention or abatement determined by the TSSWCB, in consultation with local soil and water conservation districts, that is consistent with state water quality standards.

The TSSWCB selected requirements for a WQMP based on the criteria outlined in the *Field Office Technical Guide (FOTG)*, a publication of the United States Department of Agriculture's Natural Resources Conservation Service (NRCS).

Nutrient management must be included if nutrients are applied. If an animal feeding operation is involved (such as an unpermitted dairy), a WQMP will be planned with practices that individually or in combination with other practices will properly manage animal wastes. Waste utilization will be considered when agricultural wastes are applied. These WQMPs also have subcomponents for irrigation waters, erosion control, and are flexible enough to cater to a wide range of operating systems.

Agricultural and forestry landowners may enter into these cooperative agreements with their local district to control nonpoint source pollution from their operations. While the decision to develop a plan is voluntary, landowners have many reasons to do so. These plans provide for landowners to use best management practices in their operations to protect their most precious agricultural resources by controlling erosion, conserving water, and protecting water quality. In addition, certified plans have the same legal status as Texas Commission on Environmental Quality (TCEQ) point source pollution permits, without having to go through that agency's regulatory process. Landowners may also receive financial incentives to help pay for implementing these plans.

It should be noted that an animal feeding operation that is required by law to operate within the confines of a water quality permit issued by the TCEQ may not participate in the TSSWCB program.

Water Quality Management Plans are especially useful for animal feeding operations. Depending on their size, animal feeding operations may be regulated by TCEQ as a point source or are unregulated and eligible for the TSSWCB's voluntary program. Generally, these feeding operations are classified according to the number of animals they have, calculated as "animal units"; however, TECQ has adopted rules that provide if you have or exceed a certain number of animals, you will be regulated. Animal feeding operations with more than the number of animals listed in TCEQ rules must apply for a permit. Most animal feeding operations in Texas are not large enough to require a permit, which makes this program critical to protecting Texas' water quality.

In developing the Water Quality Management Plan, the TSSWCB, SWCDs, and the USDA Natural Resources Conservation Service (NRCS) provide technical assistance to help the landowner meet the criteria of the plan. A plan establishes practices and installations on the farm that adhere to best management practices specific for that area. The various installations that a plan calls for depend on the operation. A farm may include a combination of cropland, dairy cows, poultry, hogs or cattle.

These plans may also include erosion control measures such as terraces or grass waterways; or they may address nutrient management to help landowners avoid over-fertilizing their land, or over-applying animal waste. Although a plan will take into consideration each farm's unique components, all WQMPs generally attempt to control erosion, conserve water, and protect water quality.

Upon TSSWCB certification of a WQMP, a landowner may apply for a financial incentive that will help pay for implementing the plan. Local districts have varying rates for sharing the cost of plan implementation, however cost-share may not exceed 75% with a maximum $10,000 grant limit per plan. Landowners receiving financial incentive have approximately are now given a specific time period to implement conservation practices, otherwise, their applications are cancelled automatically and the funds are reallocated to another plan. This approach hopefully will reduce the amount of lapsed funds.

The TSSWCB allocates money to local districts for financial incentives based on whether the area has impaired water bodies as determined by TCEQ, or if the TSSWCB had previously designated it as a priority. Most of these financial incentives were appropriated from General Revenue funds. Some plans received financial incentives from federal funds. State appropriations provided to local districts in FY05 amounted to $2,226,042.00 to carry out a WQMP cost-share program in their district.

In addition to certifying WQMPs to ensure that they help abate nonpoint source pollution, the TSSWCB monitors WQMPs to ensure they are properly implemented. Each year, the TSSWCB conducts status reviews on a minimum of 10% of the plans. Additional technical assistance may be offered to a landowner when a WQMP is found noncompliant. In the unlikely case that the landowner does not achieve compliance with the WQMP, the TSSWCB may decertify the plan.

During FY03, the WQMP Program was administered from the TSSWCB office in Temple. The staff reductions in the FY04 budget made it necessary for the program to be reorganized and the Regional Offices activities are now coordinated through the Harlingen Regional Office. Additionally, plan certification authority was shifted from the Temple headquarters to each regional office. This change is already expediting the certification process and reducing postage expenditures, while maintaining the integrity and standards of the program.

The last adjustment involved the complaint process, which was also administered out of the headquarters office during FY03. Headquarters office no longer has an individual to do complaint inspections and all complaints are investigated from the appropriate Regional Office.

Current Status

Through the end of the third quarter of FY-07, a total of 665 water quality management plans have been certified by the State Board. The period for obligating cost-share funds ended on April 30, 2007 and a total of $1,676,131.00 was obligated. This represents 86.1% of the total allocation.
The following items will be considered at the State Board meeting in July, 2007:

1. FY-08 allocations
2. Revision of the master practice list
3. Requests for supplemental cost-share funds
4. Expansion of priority areas

The report on lapsed funds for the FY-05 funding cycle will be completed in September, 2007.

Poultry Water Quality Management Plan Initiative

In 1994, the Texas State Soil and Water Conservation Board (TSSWCB) began assisting poultry operations with the establishment of the Northeast Texas - Senate Bill 503 Cost-share Area. Since 1994,

over $300,000 of WQMP Program funding has been provided annually to six soil and water conservation districts (SWCDs) in Northeast Texas to address animal feeding operations (AFOs). Shelby SWCD began receiving SB 503 funds in FY 2005 and the Nacogdoches SWCD began receiving SB 503 funds in FY 2007.

In 1995, the TSSWCB initiated three federal Clean Water Act, §319(h) projects to demonstrate composting as a means for dead bird disposal, buffer strips, and proper land application of poultry litter. In 1996, the TSSWCB expanded its efforts by initiating a composting and marketing project. This effort to promote the installation of composters and other means of mortality management on poultry farms resulted in accelerated WQMP development.

In 1997, the Texas Legislature passed Senate Bill 1910, which required all poultry farms to have a TCEQ-approved method of dead bird disposal. The law took effect in March 1998. However, the rules were not adopted and did not take effect until fall 1999. It was during this time that requests for poultry WQMPs significantly increased due to pursuit of cost-share for mandated mortality management. This activity intensified the TSSWCB's poultry initiative.

In 1999, in response to water quality concerns and the initiation of TMDL development in the Big Cypress/Lake O' the Pines watershed, the TSSWCB began using §319 funds for cost-share in the area in addition to the Senate Bill 503 cost-share funds already directed to the watershed. The current implementation process of the TMDL has shown that the WQMP program has resulted in reduced nutrient loadings in the watershed. Due to rising concerns in nearby watersheds, the TSSWCB also included the Sam Rayburn and Toledo Bend Reservoir watersheds in its initiative in 1999. The TSSWCB expanded the poultry initiative again in 2001 to the Gonzales area.

Beginning in 2001, seven soil and water conservation district (SWCD) technicians were employed under federal Clean Water Act §319 contracts to develop WQMPs in poultry producing areas. Six of those contracts expired in 2004 and the seventh expired in March 2005. An eighth §319 district technician was hired in 2003 with the Shelby SWCD and that contract will expire in August 2007. A ninth position was hired in October 2006 in Robertson County and tenth position was hired in February 2007 in Leon County, to help with WQMP development for the Sanderson Farms expansion in the Waco area. As currently contracted, only 4 SWCD technicians are available statewide to assist with poultry WQMP development and review during FY 2007 and those contracts are scheduled to expire in August 2007. Because of expiring contracts and difficulty retaining temporary contract SWCD staff, TSSWCB submitted a 2008-2009 Legislative Appropriations Request for 4 additional FTEs to replace the 4 expiring SWCD technician positions, so as to continue technical assistance for poultry producers in these areas. The budget request was approved by the 80th Texas Legislature and will take effect September 1, 2007. The four new positions will be located in the four most heavily poultry populated areas of the state which are Shelby, Nacogdoches, Gonzales, and Leon Counties and they will also serve the poultry producers in surrounding counties. The 4 new positions will be part of the TSSWCB Poultry Program reporting to the Nacogdoches Poultry Office.

In 2001, the 77th Legislature passed Senate Bill 1339, which requires all poultry facilities in Texas to operate in accordance with a WQMP certified by the TSSWCB. The review and certification process assures the plan includes appropriate practices, management measures, and schedules of implementation.

This law provides a staggered-schedule of deadlines by which each producer, depending on their initial date of operation, must have requested the development of a WQMP from their soil and water

conservation district. Any commercial poultry facility constructed after January 1, 2002 is required to have a WQMP prior to the receipt of any birds. All other commercial poultry facilities are required to have a WQMP no later than December 31, 2007.

Currently, the TSSWCB is aware of 1375 total dry-litter poultry farms, of which 1319 (96%) currently operate under a certified WQMP. The TSSWCB estimates that 15 farms need to request a plan before December 31, 2007. The other estimated 41 farms have already requested a plan and those plans are in various stages of development. However, there is an ongoing challenge of identifying new poultry farms continually being constructed and put into production and locating other poultry farms not yet identified. Sanderson Farms will need about 75 more new contract farms in the Waco area to supply a new processing plant scheduled to open in August 2007. TSSWCB staff has already been developing WQMPs for some of these proposed new farms.

Due to changes made by the U.S. Environmental Protection Agency (EPA) to the federal regulations for concentrated animal feeding operations (CAFOs), the Texas Commission on Environmental Quality (TCEQ) adopted a rule change in 2004 that required dry-litter poultry operations larger than 125,000 broilers or pullets, 82,000 layers or breeders, or 55,000 turkeys to operate under a water quality permit. However, due to a federal court decision by the U.S. 2nd Circuit Court of Appeals in February 2005, the EPA issued a notice that the date by which a permit and a Nutrient Management Plan must be obtained was extended to July 31, 2007 and EPA has since proposed that date be extended to February 27, 2009. Also in compliance with the court decision, the EPA released additional proposed rule changes in June 2006. Under the proposed new rule, farms that do not actually discharge wastes to waters of the U.S. are not required to apply for permit coverage, thereby eliminating the need for dry-litter operations to apply. In advance of EPA's final rule, TCEQ made a rule change in September 2006 to allow CAFO size dry-litter poultry farms an exemption to permitting if they obtain and follow a WQMP certified by TSSWCB. A supplemental guidance document is available from the TSSWCB for poultry producers that provides requirements in addition to the WQMP that are necessary to stay in compliance with the CAFO rules.

In FY 2007, the TSSWCB Poultry Office, located in Nacogdoches, continues to develop, update, and review Water Quality Management Plans for poultry producers and provide assistance with all issues related to the Poultry WQMP Program. The Poultry Program Supervisor and two Natural Resource Specialists staff the office. In addition, the 4 newly approved FTEs mentioned earlier will also be part of the Poultry WQMP Program and two of those will serve the poultry producers in the Nacogdoches area. Approximately 650 (47%) of the estimated 1375 dry-litter poultry farms in Texas are located in an eight-county area surrounding Nacogdoches. Approximately 33 (3%) of the farms in those counties still need a WQMP developed. The office also assists other soil and water conservation districts in the state with poultry WQMP development as needed.

The following is a summary of the status of farms statewide needing a WQMP that TSSWCB is currently aware of:

Date Due	Status	Number of Farms	
Prior to Bird Placement	Not Signed-up	+/-70	(Sanderson Farms in Waco Area)
	Plans in Progress	12	
1/1/2002	Not Signed-up	0	
1/1/2002	Plans in Progress	1	
1/1/2003	Not Signed-up	0	
1/1/2003	Plans in Progress and/or Signed-up	0	
1/1/2005	Not Signed-up	0	
1/1/2005	Plans in Progress and/or Signed-up	0	
1/1/2008	Not Signed-up	15	
1/1/2008	Plans in Progress and/or Signed-up	19	
Unknown	Not Signed-up	3	
Unknown	Plans in Progress and/or Signed-up	11	
Subtotal:		131	
Unknown	Additional Gonzales area farms*	30	

* One integrator in the Gonzales area has indicated approximately 30 farms that are or have been wet operations and required permits will now convert to dry operations and will need WQMPs.

North Bosque River Watershed Initiative

In 1998 the North Bosque River (Segments 1226 and 1255) was included on the *Texas 303(d) List* as impaired under narrative water quality standards related to nutrients and aquatic plant growth. In February 2001, the TCEQ adopted *Two Total Maximum Daily Loads for Phosphorus in the North Bosque River* for segments 1226 and 1255.

The TMDLs concluded that:

- Use of the two segments was “impaired” by high levels of nutrients.
- The nutrient of principal concern was soluble reactive phosphorus (SRP).
- Reduction of SRP of approximately 50% would reduce the potential for problematic algal growth in the river.
- The major controllable sources of nutrients in the North Bosque River watershed were municipal wastewater treatment facilities (WWTFs) and NPS pollution from dairy waste application fields (WAFs).

In December 2002, both the TCEQ and the TSSWCB adopted *An Implementation Plan for Soluble Reactive Phosphorus in the North Bosque River Watershed.* The four basic elements of phosphorus control identified in the plan were:

- Phosphorus application rates in WAFs.
- Reduced phosphorus diet for dairy cows to reduce the phosphorus content of dairy wastes.
- Removing approximately half of the dairy-generated manure from the North Bosque River watershed for use or disposal outside of the watershed.
- Effluent limits on phosphorus for municipal wastewater treatment facilities.

Before and since the adoption of the I-Plan, the TSSWCB TMDL Program has been actively working on numerous projects and programs designed to assist the agricultural community in meeting its recommendations and requirements. Clean Water Act §319(h) Grant Program funding has been used extensively to assist in the development and implementation of the North Bosque River TMDL. Currently, seven CWA §319(h) funded projects are actively supporting the implementation of the North Bosque River TMDL.

Dairy Manure Export Support Program

Although the program has ended, the Dairy Manure Export Support (DMES) Program can claim a remarkable achievement: As of February 28, 2007, over one million ninety-three thousand tons (1,093,000) of manure have been removed from dairies in the North Bosque River and Leon River watersheds and transported to commercial composting operations. The initial goal of the DMES Program was to export 300,000 tons of manure from participating dairy farms from November 2000 through October 2003. That benchmark was exceeded in less than two years.

The TSSWCB initiated the DMES Program in an effort to bring an innovative solution to the problem of elevated phosphorus levels in the North Bosque River and Leon River watersheds and as a result of the North Bosque River TMDL and I-Plan. The DMES Program offered financial incentives to commercial manure haulers to support the transport of raw manure from dairy farms in the North Bosque River and Leon River watersheds to commercial composting operations. The raw manure is then improved through a composting process so it may be put to beneficial use. Entities such as the Texas Department of Transportation and municipalities, as well as agricultural producers and the general public are some of the target purchasers of the composted product. The export of this surplus manure (and the nutrients contained in the manure) will help address concerns regarding identified NPS water quality impacts associated with traditional on-farm land application of manure in the region.

Overall DMES Program management was controlled through the TSSWCB. The TSSWCB contracted everyday activities to the Texas Institute for Applied Environmental Research (TIAER) at Tarleton State University. In April 2001, TIAER subcontracted many aspects of the Program to the Foundation for Organic Resources Management (FORM), which was replaced by imanage, LLC in July 2003. Through FORM, and later imanage, LLC, the DMES Program has been managed at the local level through a DMES Program office located in Stephenville, Texas.

The final report discussing the DMES Program's accomplishments since it's October 2000 inception should be completed in July 2007.

Comprehensive Nutrient Management Plan Program

The TSSWCB Comprehensive Nutrient Management Plan (CNMP) Program was developed in response to a control measure recommended in the I-Plan for the North Bosque River TMDL for Soluble Reactive

Phosphorus. The I-Plan recommended that dairy producers in the watershed voluntarily develop and implement a CNMP; however, the TCEQ adopted a rule that makes the recommendation a requirement. The CNMP Program is confined to the North Bosque River and Leon River watersheds by TSSWCB rule.

A CNMP is a resource management plan containing a grouping of conservation practices and management activities which, when combined into a conservation system, will help ensure that both agricultural production goals and natural resource concerns dealing with nutrient and organic by-products and their adverse impacts on water quality are achieved. A CNMP incorporates practices to utilize animal manure and organic by-products as a beneficial resource. The TSSWCB selected requirements for a CNMP based on the TCEQ rules and regulations required for permitted and unpermitted animal feeding operations and criteria outlined in the Field Office Technical Guide (FOTG), a publication of the United States Department of Agriculture's Natural Resources Conservation Service (NRCS). The FOTG represents the best available technology and is already tailored to meet the needs of soil and water conservation districts all over the nation. To be certified by the TSSWCB, the local SWCD, the producer, and the local NRCS Field Office must approve a CNMP.

As of June 22, 2007, the TSSWCB has certified 54 of the 86 CNMPs that have been submitted for approval. The TSSWCB, NRCS, and the Texas Association of Dairymen have held numerous meetings with dairy producers and technical service providers since January 2006 in an effort to facilitate development and submittal of CNMPs.

Statewide Bacterial Water Quality Impairment Reduction Initiative

According to the 2004 *Texas Water Quality Inventory and 303(d) List*, one hundred ninety-seven (197) waterbodies are impaired because they do not meet surface water quality standards for bacteria established to protect contact recreation use (in freshwater or saltwater) and/or oyster water use. The magnitude of bacteria impairments in Texas is evident when compared to all other types of water quality impairments. These bacteria impairments represent over 50% of all impairments on the *303(d) List*.

As the lead agency in Texas responsible for the prevention, abatement, and management of NPS pollution from agricultural and/or silvicultural activities, the TSSWCB plays a critical role in addressing water quality impairments for bacteria. Many of these impairments have been attributed, at least in part, to grazing livestock or animal feeding operations.

In order to address these bacteria impairments, TSSWCB has continued to strengthen partnerships with industry commodity organizations including the Texas Farm Bureau, the Texas and Southwestern Cattle Raisers Association, the Independent Cattlemen's Association of Texas, the Texas Poultry Federation, the Texas Association of Dairymen and the Texas Pork Producers Association. Regular communication includes notification of public stakeholder meetings for Total Maximum Daily Load or Watershed Protection Plan projects that will impact livestock operations.

Working with the USDA Natural Resources Conservation Service and the State Technical Committee, an Environmental Quality Incentives Program (EQIP) State Resource Concern for Water Quality in South Central Texas was established to provide livestock producers in the Peach Creek, Elm and Sandies Creeks, Atascosa River and Lower San Antonio River watersheds financial assistance in implementing best management practices (BMPs) to prevent and abate NPS pollution from their operations which may be contributing to the bacterial water quality impairment in those watersheds. This financial assistance to livestock producers supports implementation of TMDLs in these watersheds.

The magnitude of water quality impairments from excessive bacteria in Texas has resulted in a marked increase in the number of bacteria-related education, assessment, demonstration, and implementation projects initiated and directed by the TSSWCB. Most of these projects are funded through the agency's Clean Water Act §319(h) NPS Grant Program, but the agency is utilizing other funding mechanisms such as the USDA NRCS Grassland Reserve Program. Nearly two dozen projects are currently focused on the abatement of bacterial NPS pollution.

For more information on the TSSWCB Statewide Bacterial Water Quality Impairment Reduction Initiative, visit our website at http://www.tsswcb.state.tx.us/managementprogram/initiatives/bacteria.

Coastal Management Program

Background

The Texas Coastal Management Program (CMP) was created to coordinate state, local, and federal programs for the management of Texas coastal resources. The program brings in federal Coastal Zone Management Act (CZMA) funds to Texas state and local entities to implement projects and program activities for a wide variety of purposes. The Coastal Coordination Council (CCC) administers the CMP and is chaired by the Commissioner of the GLO. It comprises the chair or appointed representatives from the TPWD, the TCEQ, the TWDB, TxDOT, a member of the Texas State Soil and Water Conservation Board, a member of the RRC, the director of the Texas A&M University Sea Grant Program and four gubernatorial appointees. These members are selected to provide fair representation for all aspects concerning coastal issues.

The Council is charged with adopting uniform goals and policies to guide decision-making by all entities regulating or managing natural resource use within the Texas coastal area. The Council reviews significant actions taken or authorized by state agencies and subdivisions that may adversely affect coastal natural resources to determine their consistency with the CMP goals and policies. In addition, the Council oversees the CMP Grants Program and the Small Business and Individual Permitting Assistance Program.

The Coastal Zone Act Reauthorization Amendments (CZARA), Section 6217, requires each state with an approved coastal zone management program to develop a federally approvable program to control coastal nonpoint source pollution. The Texas CCC appointed a Coastal Nonpoint Source Pollution Control Program workgroup to develop this document. The National Oceanic and Atmospheric Administration and the U.S. Environmental Protection Agency jointly administer the program. In Texas, two agencies hold primary responsibility for the program's development and implementation: the Texas Commission on Environmental Quality and the TSSWCB.

Section 6217 calls for implementation of management measures (§6217(g) measures or (g) measures) that will control significant nonpoint sources of pollution to coastal waters. Six source categories are addressed by these measures: agriculture, forestry, urban and developing areas, marinas, wetland/riparian areas, and hydro modification. States can use voluntary approaches combined with existing state authorities to achieve implementation of management measures. However, if the voluntary mechanisms are not effective, states must have backup enforcement authorities in place to ensure that management measures are implemented.

Texas submitted the Texas Coastal Nonpoint Source Pollution Control Program to EPA and NOAA in December 1998. In October 2000, Texas submitted the Texas Coastal NPS Control Program 15-year Program Strategy and FY 2001-2005 Implementation Plan.

Final findings were issued by NOAA/EPA in July 2003, which contained conditional approval of the program. The agricultural and silvicultural portions of the program were approved without conditions.

Current Status

The TSSWCB is responsible for implementing the agricultural and silvicultural management measures of the program. The main mechanism we have for this is the State's cost-share program for implementing Water Quality Management Plans on farms and ranches through local soil and water conservation districts (SWCD). For over eight years, more than $300,000 of state funds has been spent annually in the coastal zone districts to provide cost-share to implement 1779 Water Quality Management Plans.
In addition to state funding, Texas receives §6217 funding from NOAA for implementing the Coastal Nonpoint Source Pollution Control Program. Prior to 2004, SWCDs in the Coastal Management Zone received grants from NOAA's §6217 Implementation Funds to install agricultural management measures through the TSSWCB Water Quality Management Plan program. In March 2004, NOAA issued final guidance for the program funds. The guidance no longer allows these funds to be used to implement agricultural best management practices on private lands. As a result, federal funding is no longer available for SWCDs to implement agricultural management measures beginning in FY06. In addition, the FY06 NOAA budget cut the Coastal Nonpoint Source Pollution Control Program funding by 70%. The FY06 amount Texas received was only $112,000. No funding was available in FY07 for the coastal nonpoint source pollution control program.
In the meantime, our Water Quality Management Plan program in the coastal management zone continues.
The TSSWCB works with TCEQ and other partners to implement watershed protection plans and TMDS in the coastal zone, as well as other areas of the State. The Arroyo Colorado Watershed Protection Plan Phase I, developed was finalized in January, 2007. One of the goals of the plan is to achieve the voluntary adoption of agricultural best management practices (BMPs) on 33% of the irrigated cropland (approximately 100,000 acres) by 2010 and 50% (approximately 150,000 acres) by 2015.
Implementation of the silvicultural management measures in the coastal zone is through a CWA §319 grant from the TSSWCB to the Texas Forest Service.

Information Technology

Server Virtualization

The TSSWCB recently employed server virtualization technology to consolidate some of its most critical services onto new hardware.

Consolidating servers through virtualization allowed the TSSWCB to move much of its critical infrastructure to new hardware, while at the same time substantially reducing hardware costs and reducing the amount of administrative overhead.

This project also resulted in other important gains. Upon completion of this project, the agency realized a 600 percent increase in file server space for the headquarters office, enhanced data backup capability, improved security for each of the migrated services and improved disaster recovery capabilities.

After careful consideration of numerous virtualization technologies, the IT department selected the open source OpenVZ project as the virtualization platform to act as the centerpiece of this project. Besides

providing a mature and stable environment, this software is freely available and resulted in no costs to the agency for deployment.

Server virtualization allows multiple disparate servers to run simultaneously on the same machine. Each virtualized server operates as if it were hosted on a unique machine.

Sever Backups

Early in 2007, the IT department deployed a new approach to server backups. For servers with largely static configurations, the open source project Mondo was rolled out to produce backup system images. This allows snapshot images of working servers to be burned to a set of CDs which can be used to quickly restore a fully functional server following a disaster.

These CD images can also be used to perform security audits by comparing system files on a running server with those from a previous backup.

The use of the open source Mondo software resulted in no costs to the agency for software purchases, licensing or third-party support.

PC Hardware Upgrades

The first half of 2007 saw the initiation of new work to replace or upgrade the oldest and most problematic agency desktop PCs with more capable and reliable units or components. This work was part of a continuous process that aims to lessen the risk of unacceptable levels of downtime that could occur following PC hardware failures.

Each of the machines replaced was at or, in most cases, significantly beyond the PC life cycle recommendations from the Texas Department of Information Resources (DIR).

All purchases were made in accordance with state law and DIR guidelines through a DIR-approved vendor. Most purchases were made using DIR's Buyer's Alert Program, which resulted in substantial cost-savings during the purchase phase of this work.

Network Calendar

In December 2006, the IT Department rolled out a new network calendar capability to help the agency's nonpoint source team keep track of the projects, deadlines and meetings that employees are a part of in their work across the state. This project has since become a heavily relied upon production service.

This project was built to be secure, standards-based and to leverage the power of open source projects. On the server, WebDAV is used to hold data in a secure manner where it is accessible to authorized users. On the client side, employees subscribe to, and publish network calendars using an iCalendar-capable application, primarily the Mozilla Project's Lightning extension to its Thunderbird email client.

The project is still in an early phase, and some feature requests are still being addresses. Pending resolution of these requests, the calendar will be offered to other agency departments.

As this project was built completely from freely available open source software, it has resulted in no cost

to the agency for software, licensing or external support.

Wireless Networking Upgrade

Taking advantage of the continuing improvements in security and bandwidth in wireless local area networking, the agency upgraded its headquarters office infrastructure to provide the now widely available 802.11g wireless networking standard, in addition to the older 802.11b standard.

The bandwidth increases afforded by this upgrade have provided significant improvements for staff working with large system files over the network. Based on previous positive experiences in Harlingen and Hale Center, the IT department is planning to upgrade other agency offices in the future.

Public Information /Education Report

General Overview

The purpose of the public information/education program is to provide leadership and coordination of information/education programs relating to the agency and district programs, services, operations and resources. The TSSWCB prepares and disseminates public information relative to the agency and district functions, programs, events and accomplishments for the public and to farmers and ranchers. TSSWCB staff coordinates seminars, conferences, workshops, displays at trade shows and training for district directors and district bookkeepers, conservation professionals, youth groups and other entities. Staff provides guidance to districts with their own individual information/education programs as well as regional and state information/education programs initiated by districts. Staff prepares and disseminates press releases, news stories and printed promotional products. The TSSWCB monitors the use of the publications and use of information. Staff represents the agency as needed with various information/education groups and entities. The TSSWCB has a cooperative agreement with the Association of Texas Soil and Water Conservation Districts to provide assistance and help coordinate district involvement and participation with Association's Information/Education Committee and its programs.

2006 Summer Teacher Workshops

Several teacher workshops are held each summer for teachers interested in conservation and natural resource issues. The workshops are held in various parts of the state in cooperation with the TSSWCB. The Texas Environmental Education Advisory Committee to the Texas Education Agency approves the content of these workshops, sponsored by the TSSWCB. As an approved Environmental Education Professional Development Provider teachers are able to get credit hours toward their required continuing education units (CEUs), while experiencing nature and the outdoors.

Pedernales SWCD hosted a Teachers Workshop in Johnson City, Texas at the Franklin Family Ranch on June 12-14, 2007. Topics included grass management, soils, water cycle, plants in the Texas hill country, wildlife biology, and prescribed burning.

2006 Texas Conservation Awards Program

Each year, the Texas State Soil and Water Conservation Board and the Association of Texas Soil and Water Conservation Districts co-sponsor the Texas Conservation Awards Program to recognize and honor those who dedicate themselves and their talents to the conservation and wise use of renewable natural resources. The 2007 Awards Program that has just concluded marks the 29th year of this joint program.

Local districts select their outstanding individuals as winners and submit them by mid-February each year for regional judging. Those selected as regional winners are honored each May at regional Awards Banquets. From these regional winners, a state winner is selected for the Outstanding Conservation Districts, Outstanding Conservation Teacher, Poster Contest, and the Essay Contest. These individuals are invited to the Annual State Meeting for recognition.

The conservation awards program provides competition and incentives to expand and improve conservation efforts, resource development, and increase the wise utilization of renewable natural resources. As a result, soil and water conservation districts, and both rural and urban citizens of Texas are benefited.

Soil and water conservation districts may enter their local recognition honorees in any of 10 categories (East Texas has an additional category of Forestry Conservationist), depending on appropriateness to the category description. For the youth of the district, there is also a poster and essay contest. The categories and a brief description of each are:

Outstanding Conservation District

Awarded to the winning soil and water conservation district in each area for the most outstanding program during the past fiscal year.

Resident Conservation Rancher

Awarded to the outstanding resident conservation rancher in each area. They must be a resident of the district, perform ranching activities within the district and be a cooperator with the district from which the entry was submitted. The rancher may have other business or professional interests.

Resident Conservation Farmer

Awarded to the outstanding resident conservation farmer in each area. They must be a resident of the district, perform farming activities within the district and be a cooperator with the district from which the entry was submitted. The farmer may have other business or professional interests.

Absentee Conservation Farmer/Rancher

Awarded to the outstanding absentee conservation farmer or rancher in each area. They must reside outside the district, but operate farming or ranching activities within the district and be a cooperator with the district from which the entry was submitted. The person may have other business or professional interests.

Water Quality Management Plan

Awarded to the outstanding Water Quality Management Plan recipient in each area. They must be a district cooperator who has a district approved Water Quality Management Plan and has incorporated water quality into their farming or ranching activities and soil and water conservation work.

Essay Contest –Two Categories (Those 13 and under and those 14 to 18 years of age)

Essays (topic: "Celebrate Conservation") are to be submitted to local soil and water conservation districts for local judging. Each local district will judge the entries and submit three essays to the TSSWCB for competition on the area level. Plaques will be awarded to 1st, 2nd and 3rd place winners on the area level and state winners will be selected from the area winners. This contest is open to students, in two categories, one for those ages 13 and under, and the other category for those ages 14 to 18 years of age and does not jeopardize Texas University Interscholastic League eligibility.

Poster Contest

Posters should address one of the following subjects: "Food for the Future" or "The Living Soil". Posters shall be submitted to local soil and water conservation districts for local judging. Each local district will judge the entries and submit three posters to the TSSWCB for competition on the area level. Plaques will be awarded to the 1st, 2nd and 3rd place winners on the area level and state winners will be selected from the area winners. This contest is open to students, 12 years and under, and does not jeopardize Texas University Interscholastic League eligibility.

Business/Professional Individual

Awarded to the outstanding man or woman in the business community who has rendered the most unselfish conservation service in each area. Representatives of the news media (radio, television, newspaper, magazines, etc) who contribute to or provide support for conservation shall also be considered eligible for this award. (This award is not for individual conservation practices or individuals who, because of employment, assist with or augment the work of the soil and water conservation district.)

Conservation Teacher

Awarded to the outstanding teacher of conservation in schools in each area. Teachers of all grade levels are eligible for this award.

Wildlife Conservationist

Awarded to the outstanding wildlife conservationist in each area. They must be a district cooperator who has incorporated wildlife conservation into their farming and ranching activities.

Conservation Homemaker

Awarded to the outstanding conservation homemaker in each area. The homemaker and or family must own or operate a farm or ranch, be a district cooperator and have knowledge of the conservation programs being implemented.

Conservation District Employee

Awarded to the outstanding soil and water conservation district employee who exhibits a degree of knowledge, skill, ability, and leadership that clearly results in superior job performance far above the basic requirements of the position.

Forestry Conservationist (Area IV only)

Awarded to the outstanding forestry conservationist for the most outstanding farm forestry conservation program in the commercial forest areas of Texas. They must be a district cooperator or an individual who has implemented conservation practices on their land and has done missionary work for conservation and the district program.

Soil & Water Stewardship Public Speaking Contest

The Soil & Water Stewardship Public Speaking Contest is open to high school FFA students interested in conservation. The contest is aimed at broadening students' interest and knowledge of conservation and how individuals must depend on and take care of the world around them for survival. The contest is coordinated through the Texas FFA, with contests at the local, area and state level. Local winners compete in the 10 state FFA areas and those winners compete for the state title. The theme of the 2006 contest is “Water Wise.”

To prepare for the contest, students were to consult with their Agriculture Science teacher and work with their local soil and water conservation district. Students are encouraged to visit with their local SWCD to find out more about conservation practices in their area.

This project is a partnership between the Texas FFA, the Vocational Agriculture Teacher's Association of Texas, The Texas State Soil and Water Conservation Board, and the Association of Texas Soil and Water Conservation Districts. The State Winner of the Soil and Water Stewardship Public Speaking Contest is invited to attend the Annual State Meeting each year and asked to deliver their winning address.

Wildlife Alliance For Youth

The Wildlife Alliance for Youth (WAY) contests offer opportunities at the local district level for 4-H and FFA students to demonstrate their knowledge of the outdoors on wildlife habitat and management, wildlife laws, sportsmanship and other factual information on wildlife. The program offers scholarships to contest winners. It is a powerful tool for students to become involved in conservation and obtain an appreciation for wildlife.

Agriculture Science students, who compete in the WAY Contest, first acquire the foundational knowledge and skills for this event through the Agscience 381 - Wildlife and Recreation Curriculum. The WAY contests address the following nine subject areas in Wildlife and Recreation Management: Wildlife Plant Identification; Wildlife Plant Preferences; Wildlife Biological Facts; Wildlife Habitat; Habitat Management; Game Laws; Hunter and Boater Safety; Compass and Pacing; and Identification Techniques. Students should have an understanding of these subject areas before they compete.

The WAY contests are held in the five Texas State Soil and Water Conservation Board areas. Area IV (East Texas) holds their contest in the fall. Area V (North Central), Area I (Panhandle), Area II (West

Texas) and Area III (South Texas) all hold their contests in the spring. Each team is certified to the area level by their local SWCD. The WAY State Contest is held each year in one of the geographical areas of the state. About 600 high school students participate in the statewide competition.

The TSSWCB is the lead agency in sponsoring and organizing the contests. The Association of Texas Soil and Water Conservation Districts, USDA- Natural Resources Conservation Service, Texas Parks and Wildlife Commission, Cooperative Extension service, and the Texas Education Agency, along with local soil and water conservation districts (SWCD), all partner in the success of the youth organization.

State Woodland Clinic and Contest

The Texas State Woodland Clinic and Contest is held annually in the month of April. It is a joint effort between local soil and water conservation districts, Stephen F. Austin University School of Forestry and the NRCS-USDA.

The contest is an opportunity for 4-H and FFA youth to demonstrate their expertise in different aspects of forestry management and skills in identification of needed practices and management techniques. Competition is between teams composed of four members representing either a 4-H Club or a FFA Chapter. Prior to the state contest several local districts conduct contests for 4-H Clubs and FFA Chapters within their district and the surrounding area.

The contest began in the late 1950s and was initiated by local SWCDs and timber industry personnel to develop forestry and woodland curriculum in schools in the commercial timber area of the state (East Texas Piney Woods). The clinic and contest have experienced widespread popularity and now has participation from outside of the commercial timber area on a regular basis. The state participation level for teams averages around 55 teams per year, with the vast majority of teams being composed of FFA Chapters. Winners at the state level are eligible to participate in the four states regional woodland contest held each May in one of four states. Texas, Louisiana, Arkansas and Oklahoma host the regional contest on a rotational basis.

Regional Woodland Contest

The four states regional woodland contest is sponsored by soil and water conservation districts in each of the four states with program and technical support provided by USDA-NRCS and Resource Conservation and Development (RC&D), state organizations and industry personnel. The soil and water conservation districts in Texas hosted the first four states or southern regional woodland contest in 1984.

Each state is allowed to send a maximum of six teams to the regional contest. Each state has a competition that determines the six teams from that state that may enter in the regional contest. Those teams may be composed of individuals representing either a 4-H Club or an FFA Chapter.

Conservation Education Video Library

The Association of Texas Soil and Water Conservation Districts has established and updates a conservation related video library that is maintained by TSSWCB staff on their behalf for the benefit of local districts and educators. Currently there are 194 conservation-related videos in the library available to districts and teachers. No rental fees are assessed to those wishing to borrow the videos from the library. Borrowing privileges are for a length of two weeks and must be returned upon date specified by the librarian. Videos can be ordered through your local soil and water conservation district or by contacting the TSSWCB. From January to July 2007, there have been 67 videos of various titles loaned out to districts and teachers across the state.

Conservation Education Models

The Nonpoint Source Pollution Watershed Flow Model allows students to understand how water supplies can become polluted from nonpoint sources through interactive demonstrations.

Nonpoint Source (NPS) Pollution Watershed Flow Model

The NPS model is a hands-on representation of a landscape that allows students to understand how water sources can become polluted from nonpoint sources. The plastic landscape structure has industrial, undeveloped, agricultural, and residential and roadway features complete with individual houses, trees, cars, tractors and cows. When "rain" falls on the model, the runoff flows into a city lake. Using various products to add color to the water, the model demonstrates how potential pollutants are picked up by run-off.

The model is a layout of a watershed that includes all the factors that may contribute to polluting our water. (Urban features such as: factories, parking lots, construction sites, lawn chemicals and golf courses and Rural features such as: forested land, dairies, feedlots, cropland and pastureland). To demonstrate how each type of potential pollutant can enter a water body Kool-Aid and cocoa are used to color “runoff”. Grape Kool-Aid is used to represent pollution from factories and oil from parking lots and roads. Orange Kool-aid represents pollution from lawn chemicals, golf courses, and cropland and pastureland chemicals. Cocoa is used to represent pollution from construction sites, forested land, dairies and feedlots. The Kool-aid and Cocoa are sprinkled on the model in the areas that represent each type of pollutant. Once all the pollutants are sprinkled on the model a spray bottle with water is use to represent rainfall. As the pollutants get wet and start to runoff the students can see how the water carries them to the streams and into the lake where we get our drinking water. Once all the pollutants have run into the lake the students can see how these factors have the potential to make surface waters unattractive and unsafe. This demonstration leads to a discussion about how to protect the water quality and prevent our water from looking like the model.

BRUSH CONTROL PROGRAM STATUS REPORT

BACKGROUND:

The 79th Legislature continued funding for the State Brush Control Program by providing $1,874,176.00 in General Revenue Funds in FY07. These funds were directed to be used for continuation of brush control projects designated by the Soil and Water Conservation Board.

Watershed	2007 Allocated Funds	Unobligated Funds ($)	Treated Acres
North Concho	50,000.00	20.00	328,802.14
Pedernales	200,000.00	$ 18,222.55	73,375.08
Twin Buttes	500,000.00	$ 0.20	275,765.57
Lake Ballinger	50,000.00	$ 0.00	8314.7
Oak Creek Lake	50,0000.00	$0.00	16,404
Pecos (Saltcedar)	150,000.00	$ 18,914.46	7,274.15
Upper Colorado(Saltcedar)	Combined w/Pecos	Combined w/Pecos	824.32
Hubbard Creek(SaltCedar)	60,000.00	$ 0.00	0
Lake Arrowhead	100,000.00	100,000.00	0
Nueces River	100,000.00	0.00	0

*The table listed above represents General Revenue 07 money in the unobligated funds column
*Total acres treated represents treated acres since the beginning of each project

- The following SWCDs were provided with Brush Program Updates or Brush Program Assistance

Area 1 Districts
Dawson County SWCD
Upper Colorado SWCD

Area 2 Districts
North Concho River SWCD
Nolan County SWCD
Middle Concho SWCD
Eldorado-Divide SWCD
Tom Green County SWCD

Pedernales SWCD
Mitchell County SWCD
Gillispie County SWCD
Runnels SWCD
Pecos County SWCD
Middle Clear Fork SWCD
Midland SWCD
Trans Pecos SWCD
Sandhills SWCD
Howard County SWCD

Area 3
McMullen County SWCD
Caldwell/ Travis SWCD

Area 5
Archer County SWCD
Lower Clear Fork/Brazos SWCD

2007 Budget Summary

Texas State Soil and Water Conservation Board

June-07

Personnel	Budget	Actual	Difference ($)	Difference (%)
7001, 7002, 7003 - 62 Full - Time Equiv	$ 2,690,329	$ 2,014,667	$ 675,662	25.1%
Other Personnel Costs	**Budget**	**Actual**	**Difference ($)**	**Difference (%)**
7017, 7022, 7023, 7025, 7050 - Other	$ 110,993	$ 119,607	$ (8,614)	-7.8%
Professional Fees	**Budget**	**Actual**	**Difference ($)**	**Difference (%)**
7245 - Finanical, Accounting	$ 24,000	$ 20,555	$ 3,445	14.4%
Fuel	**Budget**	**Actual**	**Difference ($)**	**Difference (%)**
7304-Fuel	$ 33,565	$ 18,960	$ 14,605	43.5%
Consumable Supplies	**Budget**	**Actual**	**Difference ($)**	**Difference (%)**
7300-Consumables	$ 29,456	$ 19,852	$ 9,604	32.6%
Utilities	**Budget**	**Actual**	**Difference ($)**	**Difference (%)**
7501-Electricity	$ 2,000	$ 1,657	$ 343	17.2%
7503, 7504, 7510, 7516, 7517 -Telecom	67,652	37,045	30,607	45.2%
Travel	**Budget**	**Actual**	**Difference ($)**	**Difference (%)**
7101-Public Fares	$ 32,000	$ 25,681	$ 6,319	19.7%
7102-Mileage	159,000	126,838	32,162	20.2%
7104, 7105, 7106 - Meal, Lodge, Inc	80,906	70,201	10,705	13.2%
7107-Non-overnight Meal	19,971	14,347	5,624	28.2%
7110-Board Member Meal, Lodge	7,500	5,095	2,405	32.1%
7111, 7112, 7115, 7130 - Out of State	3,500	1,136	2,364	67.5%
7135-Hotel Occup Tax	2,100	328	1,772	84.4%
Rent-Building	**Budget**	**Actual**	**Difference ($)**	**Difference (%)**
7462-Office Building	$ 152,500	$ 127,407	$ 25,093	16.5%
7470-Space	11,628	8,381	3,247	27.9%
Rent-Machine	**Budget**	**Actual**	**Difference ($)**	**Difference (%)**
7406, 7411 -Furniture, Computer Equip	$ 31,400	$ 21,374	$ 10,026	31.9%
7442-Motor Vehicle	2,600	723	1,877	72.2%
Other Operating	**Budget**	**Actual**	**Difference ($)**	**Difference (%)**
720, 7203 -Membership, Training	$ 8,250	$ 6,912	$ 1,338	16.2%
7210-Fees and Charges	2,000	549	1,451	72.6%
7211, 7218 - Awards, Publications	2,700	1,975	725	26.9%
7262, 7266, 7267 - Maintenance, Repair	7,300	3,393	3,907	53.5%
7273-Printing, Copying	1,750	3,101	(1,351)	-77.2%
7276-Communication Services	40,100	24,531	15,569	38.8%
7277-Cleaning Services	3,500	1,575	1,925	55.0%
7281-Advertising	1,000	193	807	80.7%
7286, 7291 - Freight, Postal Services	18,159	5,272	12,887	71.0%
7299-Purchased Services	822,569	555,041	267,528	32.5%
7303-Subscription Period	500	200	300	60.0%
7312- Medical Supplies	50	11	39	78.0%
7330, 7334, 7335 - Equipment, Parts	44,000	10,330	33,670	76.5%
7367, 7368 - Maintenance, Repair	33,906	4,988	28,918	85.3%
7374-Equipment Controlled	10,250	1,176	9,074	88.5%
7377, 7378, 7380 - Computer Expenses	50,750	18,607	32,143	63.3%
7806-Interest	50	9	41	82.0%
7947-SORM	5,758	4,858	900	15.6%
Grants	**Budget**	**Actual**	**Difference ($)**	**Difference (%)**
7613-Grants Political Subdivisions	$ 3,602,550	$ 3,115,972	$ 486,578	13.5%
7621, 7623 - Grants COG, Community	700,000	662,496	37,504	5.4%
7624-Grants Individuals	4,041,922	1,111,041	2,930,881	72.5%
7971-Fed Pass-Thru Non-Operating	750,000	868,290	(118,290)	-15.8%
Capital Expenditures	**Budget**	**Actual**	**Difference ($)**	**Difference (%)**
7373-Equipment Capitalized	$ 23,900	$ 23,900	$ -	0.0%
Total Expenses	**Budget**	**Actual**	**Difference ($)**	**Difference (%)**
	$ 13,632,064	$ 9,058,274	$ 4,573,790	33.6%

Active CWA Section 319(h) Projects

	Project Name	Project Description	Lead	Period	Federal
01-01	Administration of the FY2001 CWA Section 319(h) Agricultural/Silvicultural NPS Management Program	Administer/manage the FY01 CWA 319(h) cooperative agreement between EPA and TSSWCB. Coordinate with project cooperators on administrative related issues and manage the financial aspects of each contract.	TSSWCB	4 /1 /2008	$243,674
01-02	Statewide NPS Pollution Management Project	Provide technical assistance for FY01 CWA 319(h) agricultural and silvicultural projects and ensure that projects meet all technical requirements and are successfully completed in a timely fashion.	TSSWCB	4 /1 /2008	$308,390
01-15	WQMP Initiative for the Pork Industry	The objective of this project is to determine the steps needed to assist unpermitted nonpoint source pork producers in meeting the requirements of the Texas Water Code and Texas Administrative Code §321.47 through the successful development of water quality management plans (WQMPs) certified in accordance with Texas Agriculture Code §201.026. The project will consist of the development, implementation, and demonstration of WQMPs containing cost-effective alternative manure and wastewater storage facilities on two pork operations chosen by the Texas Pork Producers Association (TPPA).	TPPA	2 /3 /2006 8 /31/2007	$21,000
01-16	Environmental Regulatory Oversight	The objective of this project is to provide the Texas State Soil & Water Conservation Board guidance and assistance related to state/federal environmental requirements for unpermitted animal feeding operations.	TAMU & Eco-Environmental Services	2 /28/2006 2 /29/2008	$103,362
01-17	Extending TMDL Efforts in the NBR Watershed	This project will provide storm and routine monitoring of tributaries that contribute nonpoint source loadings to an impaired water body in order to assess agricultural NPS reductions.	TIAER	3 /31/2006 3 /30/2008	$441,755

	Project Name	Project Description	Lead	Period	Federal
01-18	Seymour Supplemental	The main goal of this project is to demonstrate management practices that mitigate nitrate movement in the soil within the Seymour Aquifer region. This project will generate and extend new knowledge to enhance Best Management Practices (BMPs) for nutrient and irrigation management within the Seymour Aquifer through establishment of a subsurface drip irrigation system at the Chillicothe Research Station. This project will also provide additional resources for quantifying and verifying the effectiveness of BMP implementation in reducing nitrate levels within the aquifer.	TWRI	3 /15/2006 9 /30/2007	$83,254
01-19	ENVIROCAST	The project Envirocast®: Increasing Nonpoint Source Pollution Prevention through Watershed Awareness in the Upper Trinity River Watershed will introduce environmental news and information at the local level specifically designed to raise citizen's understanding, appreciation, and treatment of environmental issues at the watershed scale.	NCTCOG	3 /1 /2006 5 /1 /2007	$390,000
01-20	TSSWCB NPS Team Support	This project will provide technical assistance for FY01 - FY05 (and beyond) CWA 319(h) agricultural and silvicultural projects to ensure that the projects meet all requirements.	TSSWCB	3 /1 /2006 1 /1 /2008	$42,400
01-21	Maintaining Sediment Prevention through Repair of Floodwater-retarding structures in McCulloch County	This project will involve cooperative efforts between the TSSWCB, McCulloch SWCD #249 and the USDA-NRCS in an effort to provide technical and financial assistance for restoration of local floodwater retarding structures. Baylor University will conduct sedimentation surveys and sediment core analysis.	McCulloch SWCD & Baylor	5 /1 /2006 1 /31/2008	$338,398
01-22	Improvement and Standardization of Laboratory Quality Assurance and Quality Control for Mehlich III Soil Test Methodology: Phase 1	The objective of this project is to develop appropriate and standardized quality assurance/quality control and standard operating procedures (SOP) for use of the Mehlich III soil test extractant.	TCE	9 /1 /2006 3 /1 /2008	$228,097

	Project Name	Project Description	Lead	Period	Federal
02-01	Administration of the FY2002 CWA Section 319(h) Agricultural/Silvicultural NPS Management Program	Administer/manage the FY02 CWA 319(h) cooperative agreement between EPA and TSSWCB. Coordinate with project cooperators on administrative related issues and manage the financial aspects of each contract.	TSSWCB	4 /1 /2009	$304,132
02-02	Statewide NPS Pollution Management Project	Provide technical assistance for FY02 CWA 319(h) agricultural and silvicultural projects and ensure that projects meet all technical requirements and are successfully completed in a timely fashion.	TSSWCB	4 /1 /2009	$311,290
02-05	Little River Atrazine Remediation	This project will provide corn & sorghum producers in the Little River watershed with an opportunity to participate in water quality educational activities, technical assistance, and financial assistance for implementation of BMPs, to reduce atrazine runoff.	Central Texas SWCD	4 /9 /2002 4 /30/2008	$483,482
02-11	Phosphorus Index	The objectives of this project are to determine the effects of selected soil properties on measured and predicted P runoff, compare and correlate different soil test & soil solution extractable P levels to runoff P, and validate and/or modify the TX P Index as a predictive tool for classification of field sites relative to P loss potential.	TCE	9 /27/2002 3 /31/2008	$203,178
02-12	Three - Technicians	Three technicians will work under the direction of SWCDs, with assistance when needed from the TSSWCB regional offices, and NRCS to assist landowners in the development, implementation, &/or maintenance of WQMPs/BMPs. Technicians will be placed in three SWCDs and will work in adjacent SWCDs through cooperative agreements between the participating SWCDs.	Southmost, Shelby & Ellis-Prairie SWCD's	9 /11/2002 8 /31/2007	$700,803
02-13	Oso Creek/Oso Bay Watershed Implementation Assistance	This project will consist of TSSWCB working cooperatively with the Nueces SWCD #357 in the Oso Creek/Oso Bay Watershed to provide technical and financial assistance to landowners in the implementation of WQMPs.	Nueces SWCD & TAES AREC (CC)	12/1 /2002 3 /31/2008	$596,067

	Project Name	Project Description	Lead	Period	Federal
02-15	Water Quality Information/Education	Through the development of newspaper articles, informational brochures/flyers, display exhibits and promotional materials that include both water quality and water conservation messages a strategy can be developed to heighten the public awareness of the importance of protecting and conserving water resources.	TSSWCB	3 /31/2002 3 /31/2008	$135,000
02-20	Saltwater Revegetation	This demonstration project will demonstrate alternatives to reclaim saltwater scarred areas in North Central Texas. Not only are these areas unproductive and an eyesore, but downstream sedimentation causes water quality degradation and loss of vegetation.	Young SWCD	5 /4 /2005 3 /31/2007	$15,060
03-01	Administration of the FY2003 CWA Section 319(h) Agricultural/Silvicultural NPS Management Program	Administer/manage the FY03 CWA 319(h) cooperative agreement between EPA and TSSWCB. Coordinate with project cooperators on administrative related issues and manage the financial aspects of each contract.	TSSWCB	5 /3 /2010	$154,231
03-02	Statewide NPS Pollution Management Project	Provide technical assistance for FY03 CWA 319(h) agricultural and silvicultural projects and ensure that projects meet all technical requirements and are successfully completed in a timely fashion.	TSSWCB	5 /3 /2010	$245,109
03-05	Sam Rayburn WQMP Implementation Supplemental	The project will provide financial assistance to landowners for development/implementation of WQMPs, foster coordinated technical assistance activities in Sam Rayburn Reservoir and Toledo Bend Reservoir watersheds between TSSWCB, SWCD, NRCS, and other interested individuals, and Compile information on the location/types of BMPs for WQMPs implemented.	Shelby SWCD	7 /1 /2003 8 /31/2007	$350,000
03-06	E.V. Spence Saltcedar	This project will provide technical and financial assistance toward implementation of targeted brush control activities for the purpose of reducing NPS loadings from saltcedar in the E.V. Spence Reservoir.	TSSWCB	11/1 /2003 3 /31/2008	$2,208,446
03-07	Bacteria Monitoring for Buck Creek	The objective of the project is to monitor water quality as related to bacterial NPS pollution in Buck Creek by in-stream water sampling to facilitate TMDL definitions and guidance if needed.	TWRI	11/18/2003 9 /30/2007	$247,198

	Project Name	Project Description	Lead	Period	Federal
03-08	Nitrate Impacts in Groundwater	The objectives of this project are to demonstrate the effectiveness of winter cover crops in removing nitrate-nitrogen from the soil profile to minimize nitrate leaching, demonstrate the ability of zeolite to reduce atrazine and arsenic concentrations in water, and assess the extent of atrazine and arsenic detections in private groundwater in the Seymour and High Plains of Texas.	TCE	11/24/2003 4 /30/2008	$98,341
03-09	Central Texas WQMP Implementation Supplemental	The project will provide additional funding for the ongoing implementation efforts in the Little River watershed. TSSWCB projects (02-5 & 02-6) entitled Central Texas Atrazine Remediation Project.	Little River - San Gabriel & Central Texas SWCD	10/31/2003 4 /30/2008	$424,080
03-10	Technologies for Animal Waste Pollution	The objective of this project is to evaluate up to six technologies for decreasing nonpoint source pollution and improving surface water quality, through on-site demonstrations of reduction of total and soluble P in dairy effluent applied to waste application fields.	TWRI and TAMU-BAEN	11/24/2003 3 /31/2008	$227,793
03-11	Leaf Beetle Demonstration	The project will demonstrate the usefulness of biologically treating saltcedar in the Colorado River Basin in an effort to reduce NPS pollution loadings resulting from saltcedar on agricultural lands.	ARS-USDA	1 /15/2004 3 /31/2008	$99,246
03-12	Navarro WQMP Implementation Supplemental	This project will provide corn and sorghum producers in the Richland Chambers Reservoir watershed with an opportunity to participate in water quality educational activities, technical assistance, and financial assistance to implement BMPs to reduce the runoff of atrazine.	Navarro SWCD	12/10/2003 8 /31/2007	$430,279
03-14	Edge of Field Monitoring	The project will monitor and evaluate the P reduction capabilities of a state of the art methane digester installed on a dairy facility in the North Bosque River watershed operating in conjunction with a CNMP.	BRA & TIAER	11/18/2003 1 /31/2008	$96,081
03-15	Reducing Atrazine Losses in Central TX	The primary objective of this project is to demonstrate in field plots alternative means of protecting water quality from atrazine contamination and assess their impacts by simulating field conditions over a long period of time.	TCE	11/24/2003 8 /31/2007	$101,271

	Project Name	Project Description	Lead	Period	Federal
03-18	Bosque Watershed Coordinator	The objectives of the project include identifying and tracking progress of all pollution prevention projects and measures that are currently underway, tracking rules & regulations that affect operations of entities in the watershed, reviewing water quality data for trend I.D., providing opportunities for efficient/effective use of resources.	BRA	12/3 /2003 3 /31/2007	$190,815
04-01	Administration of the FY2004 CWA Section 319(h) Agricultural/Silvicultural NPS Management Program	Administer/manage the FY04 CWA 319(h) cooperative agreement between EPA and TSSWCB. Coordinate with project cooperators on administrative related issues and manage the financial aspects of each contract.	TSSWCB	6 /1 /2011	$154,220
04-02	Statewide NPS Pollution Management Project	Provide technical assistance for FY04 CWA 319(h) agricultural and silvicultural projects and ensure that projects meet all technical requirements and are successfully completed in a timely fashion.	TSSWCB	6 /1 /2011	$375,231
04-03	Athletic Field Topdressing as a Commercial Market for Compost from Dairy Manure (Field of Dreams Project)	The purpose of this project is to gain commercial acceptance of blend of compost and sand for topdressing of athletic fields through demonstration on athletic fields.	Leon-Bosque RC&D	8 /4 /2004 7 /31/2007	$300,000
04-04	Field Validation of the Texas P Index in the Poultry Areas of Texas	The objectives of this project are to determine the effects of selected soil properties in Sam Rayburn Reservoir and Lake O' the Pines watersheds and other poultry producing areas of the state in East & South Central Texas to measure & predict P runoff and compare and correlate Mehlich III and soil solution soluble P extracts to runoff P.	TCE	8 /18/2004 9 /30/2008	$390,657
04-05	Creekside Conservation Program Project	The purpose of this project is to protect Central Texas Highland Lakes by providing technical/financial assistance to landowners through the LCRA's Creekside Conservation Program and assess NPS reductions resulting from Creekside Conservation Program.	LCRA	8 /3 /2004 8 /31/2007	$507,300

	Project Name	Project Description	Lead	Period	Federal
04-06	Modeling Nutrient Loads from Poultry Operations in the Toledo Bend & Sam Rayburn Reservoir Watersheds	This project will simulate nutrient loadings for pre and post implementation conditions in the Toledo Bend Reservoir and Sam Rayburn Reservoir watersheds.	USDA NRCS-WRAT	4 /11/2005 3 /31/2008	$96,000
04-07	Technical Assistance and Implementation in West Fork of the Trinity River Watershed	This project will provide technical assistance to landowners in developing and implementing WQMPs within the West Fork of Trinity River Watershed.	Jack SWCD	8 /12/2004 8 /31/2007	$100,000
04-08	WQMP Implementation Assistance in Falcon Reservoir	This project will coordinate technical assistance activities in the Falcon Reservoir Drainage Area in Zapata County between TSSWCB, SWCD, NRCS, & Kika De La Garza PMC and provide technical/financial assistance to landowners to aid in development/implementation of WQMPs.	Zapata SWCD	8 /17/2004 8 /31/2007	$461,290
04-09	Seymour Aquifer Water Quality Improvement	This project will provide irrigators in Haskell, Knox, and Jones counties with opportunity to participate in water quality educational activities, technical assistance, financial assistance for implementation of BMPs, in order to improve water quality in Seymour Aquifer.	Haskell, Knox and Jones SWCD	8 /19/2004 8 /31/2008	$764,054
04-10	Phytoremediation of excessively high phosphorus soils and subsequent reduced P runoff into North Bosque River	The objective of this project is to develop and demonstrate year-round forage systems for both abandoned and currently used waste application fields that can reduce P loads that soon will or already exceeds safe levels of plant-available P on the North Bosque River drainage.	TAES - Stephenville	8 /30/2004 8 /31/2008	$238,859
04-11	Watershed Protection Plan Development for the Pecos River	This project will assess the Pecos River Basin, increase landowner and stakeholder involvement through educational efforts, and develop a Watershed Protection Plan based on the river basin assessment.	TWRI	8 /25/2004 2 /29/2008	$709,381

	Project Name	Project Description	Lead	Period	Federal
04-12	Assessment of Springtime Contributions of Nutrients and Bacteria to the NBR	This project will provide storm and routine monitoring of tributaries to the NBR in order to assess ag NPS reductions. The project will focus on springtime contributions of nutrients and bacteria to water quality within tributaries of the NBR, assessing reductions in pre- and post-TMDL implementation periods.	TIAER	8 /15/2004 8 /31/2008	$90,090
04-13	Development of a Watershed Protection Plan for the Concho River Basin	This project will provide assessment of existing and potential water quality threats related to on-going NPS water pollution within the Concho River basin and develop a Watershed Protection Plan.	UCRA	8 /25/2004 2 /29/2008	$375,240
04-14	Assessment and Mitigation of Agricultural and Other NPS Activities in the Cypress Creek Basin.	The primary goal of the project is to evaluate the effectiveness of selected BMPs in reducing nutrient inputs to Big Cypress Creek and Lake O' Pines by documenting runoff quality from sites representing dominant soil & land use types, with/out BMPs.	NETMWD	8 /3 /2004 3 /31/2008	$442,805
04-15	Mathematical Model for Dispersal of Leaf Beetle, Diorhabda Elongata from Old World released in U.S. for Biological Control of Invasive Saltcedar	The goal of the project is to aid in the Implementation Plan for Sulfate and Total Dissolved Solids (TMDLs) in the J.B. Thomas, E.V. Spence and O.H. Ivey Reservoirs by biological control of saltcedar in riparian areas along the Colorado River of Texas and its tributaries.	ARS-USDA	10/27/2004 8 /31/2007	$136,724
04-16	Nueces Basin Headwaters Stewardship Project	Using public education, the project will concentrate on water quality concerns, impairments, and threats to water quality and streambed conditions in five headwater stream segments of the Nueces River Basin.	NRA	9 /1 /2004 8 /31/2007	$170,703
04-17	Plum Creek WPP	The purpose of this project is to coordinate the development of a Watershed Protection Plan for the Plum Creek Watershed and to facilitate beginning phases of implementation.	TCE	2 /24/2005 8 /31/2007	$440,503
04-18	BMP Verification in Richland-Chambers Watershed	The purpose of the project is to verify the effectiveness of nutrient load reduction BMPs in the Richland-Chambers watershed.	TAES-Blackland	8 /1 /2005 7 /1 /2008	$237,722

	Project Name	Project Description	Lead	Period	Federal
04-19	Regional Watershed Coordinator	The objective of this project is to successfully facilitate and coordinate watershed planning activities in the Wharton Regional Office service area.	TSSWCB	8 /31/2007	$145,249
05-01	Administration of the FY2005 CWA Section 319(h) Agricultural/Silvicultural NPS Management Program	Administer/manage the FY05 CWA 319(h) cooperative agreement between EPA and TSSWCB. Coordinate with project cooperators on administrative related issues and manage the financial aspects of each contract.	TSSWCB	9 /1 /2011	$104,480
05-02	Statewide NPS Pollution Management Project	Provide technical assistance for FY05 CWA 319(h) agricultural and silvicultural projects and ensure that projects meet all technical requirements and are successfully completed in a timely fashion.	TSSWCB	9 /1 /2011	$310,426
05-03	Ellis Prairie SWCD Project	This project will provide technical/financial assistance to qualifying producers on appropriate BMPs to reduce sediment, nutrient, and pesticide runoff and provide water quality educational events.	Ellis-Prairie SWCD	8 /1 /2005 8 /31/2008	$433,700
05-04	Silvicultural NPS Abatement	This project will reduce significant risks to water quality from silvicultural NPS pollution by implementing BMPs and increasing silvicultural NPS awareness by completing a statewide evaluation of silvicultural BMP implementation, providing technical assistance, education, coordination, and monitoring the effectiveness of forestry BMPs.	TFS	9 /1 /2005 8 /31/2008	$574,521
05-05	Watershed Education	The purpose of this project will be to develop and deliver an educational curriculum which functions to support the TSSWCB's effort to prepare a Watershed Protection Plan in the target watershed.	TCE	9 /1 /2005 8 /31/2008	$358,041
05-06	PLAN	The objective of this project is to educate 3rd party applicators of poultry litter to the environmental benefits of using proper application management techniques on new sites.	TCE	9 /1 /2005 8 /31/2008	$210,002

	Project Name	Project Description	Lead	Period	Federal
05-07	Impact of Proper Fertilizer Management	The objective of this project is to implement fertilizer management practices on cultivated and pasture fields to demonstrate the importance of using proper management relating to application method, timing, and rate, and conduct demonstration/educational activities on the importance of proper organic fertilizer management.	TCE	9 /1 /2005 8 /31/2008	$186,352
05-08	Peach Creek Project	This project will provide agricultural producers in the Peach Creek watershed with an opportunity to participate in water quality educational activities, technical assistance, and financial assistance for the implementation of Best Management Practices (BMPs), in order to improve water quality.	Gonzales SWCD	9 /1 /2005 8 /31/2008	$465,123
05-09	Lake Granger Project	The Brazos River Authority will facilitate the development of a Watershed Protection Plan for the Lake Granger Watershed. This project will also provide the Little River-San Gabriel and Taylor SWCDs with funding for technical/ financial assistance to implement BMPs through conservation planning.	BRA & Little River-San Gabriel and Taylor SWCD's	9 /1 /2005 8 /31/2008	$814,168
05-10	Arroyo Eduation Project	The purpose of this project is to educate agricultural producers on how to better produce and manage their acreage and support and promote associated programs implementing BMPs related to water quality protection.	TWRI	9 /1 /2005 8 /31/2008	$103,959
05-12	Arroyo WQMP Project	This project will provide technical assistance to landowners to aid in the development and implementation of a minimum of 78 WQMPs in the Arroyo Colorado Watershed.	Hidalgo & Southmost SWCDs	9 /1 /2005 8 /31/2008	$970,478
05-13	Composting Support - DMES	The project consists of the TSSWCB working cooperatively with participating entities, dairy producers, manure haulers, and others in the Bosque and Leon River watersheds to provide financial assistance to manure haulers in the creation and removal of a marketable-composted product.	TSSWCB	9 /1 /2005 9 /30/2007	$228,000

	Project Name	Project Description	Lead	Period	Federal
06-01	Administration of the FY2006 CWA Section 319(h) Agricultural/Silvicultural Nonpoint Source Management Program	Administer and manage the FY2006 CWA 319(h) cooperative agreement between EPA and TSSWCB. Coordinate with project cooperators on administrative related issues and manage the financial aspects of each contract.	TSSWCB	10/1 /2006 9 /1 /2011	$294,343
06-02	FY06 Statewide NPS Pollution Management Project	Provide technical assistance for FY06 CWA 319(h) agricultural and silvicultural projects and to ensure that the projects meet all technical requirements and are successfully completed in a timely fashion.	TSSWCB	10/1 /2006 9 /1 /2011	$487,998
06-03	TSSWCB NPS Team Support	Provide technical assistance for FY01 - FY06 CWA 319(h) agricultural and silvicultural projects to ensure that the projects meet all	TSSWCB	10/1 /2006 9 /1 /2011	$44,000
06-04	Improvement and Standardization of Laboratory Quality Assurance and Quality Control for Mehlich III Soil Test Methodology: Phase 2	The purpose of this project is to develop appropriate and standardized quality assurance/quality control and standard operating procedures (SOP) for use of the Mehlich III soil test extractant.	TCE	10/1 /2006 9 /30/2009	$100,786
06-05	Lone Star Healthy Streams	This project will reduce the levels of bacterial contamination of Texas watersheds from grazing livestock (beef cattle) by developing an educational curriculum that delivers current knowledge training in production and environmental management of grazing lands and their associated watersheds, evaluating and demonstrating the effectiveness of BMPs in reducing bacterial contamination of streams and water bodies from grazing lands, testing the functionality of the education program and make necessary changes and program modifications based on the results, and promoting Statewide adoption of appropriate best management practices (BMPs) and other watershed / water quality protection activities through education, outreach and technology transfer.	TWRI	10/1 /2006 9 /30/2009	$404,673

	Project Name	Project Description	Lead	Period	Federal
06-06	Envirocast Phase II	The principal goal of e-Life is to continue developing public understanding and awareness of watershed issues through environmental stories and features broadcasted during e-Life segments. The second phase will build upon the e-Life broadcasting platform and Web tools established during the first phase. By continually exposing the North Central Texas public to e-Life concepts, the project aims to help the public adopt NPS pollution prevention behaviors.	NCTCOG	2 /1 /2007 4 /30/2008	$272,785
06-07	Monitoring and Educational Programs Focused on Escherichia coli Bacteria and Nutrient Runoff on Dairy Operations in the Leon Watershed	The objectives of this project are to evaluate the presence of E. coli bacteria and nutrients on livestock operations and determine the risks of movement of E. coli and nutrients to surface waters, educate livestock producers about best management practices to decrease E. coli bacteria and nutrients in runoff from livestock operations, and determine the source(s) of E. coli in runoff from the sites and its relative contribution to the E. coli populations downstream of the waste application fields.	TAES-Stephenville	10/1 /2006 9 /30/2009	$438,357
06-08	Education Program for Improved Water Quality in Copano Bay	The objective of this project is to improve the water quality in Copano Bay and its tributaries by increasing awareness of the water quality issues throughout the watershed and providing education and demonstrations for landowners and livestock owners in the watershed on practices to decrease or prevent bacteria from entering waterways.	TWRI	10/1 /2006 9 /30/2009	$211,794
06-09	WQMP Implementation in the Middle and South Bosque River Watersheds	This project will provide technical and/or financial assistance to landowners to aid in the development and implementation of WQMPs and compile information on the location and types BMPs for each WQMP implemented.	McClennen Co SWCD	11/1 /2006 9 /30/2009	$527,770
06-10	Arroyo Colorado Agricultural Nonpoint Source Assessment	The objectives of the project are to perform a complete historical data review and analysis related to water quality and agricultural best management practices implemented in the watershed, investigate site-specific differences and temporal variation of water quality in drainage from agricultural production areas, and collect data for future recalibration of SWAT model to better estimate the total nonpoint source loading into the river.	TWRI	10/1 /2006 9 /30/2009	$430,650

	Project Name	Project Description	Lead	Period	Federal
06-11	Buck Creek WPP	The objectives of this project are to identify specific sources of the bacteria in Buck Creek, evaluate potential management alternatives for restoring the waterbody and educate landowners on the best management practices, and develop a watershed protection plan to restore the waterbody through a stakeholder driven process.	TWRI	10/1 /2006 9 /30/2009	$430,181
06-12	Leon River WPP	The objectives of this project are to use a locally-driven, stakeholder process to develop a Watershed Protection Plan for the Leon River Watershed above Lake Belton; enhance data collection efforts to support and facilitate implementation activities; provide the TSSWCB and the TCEQ with recommendations on implementation strategies that can be incorporated into the TMDL Implementation Plan; and provide an overall assessment of the Leon River Watershed above Lake Belton.	BRA	10/1 /2006 9 /30/2009	$440,525
06-13	Three EQIP Technicians	The objective of the project is to provide technical assistance to landowners to aid in the development, implementation, and/or maintenance of WQMPs through SB503, Clean Water Act (CWA) Section 319(h) and EQIP funds and compile information on the location and types BMPs for each WQMP implemented.	Karnes, Atascosa, & Dewitt SWCDs	12/1 /2006 9 /30/2009	$387,900
06-15	SWQM for Copano Bay TMDL	The objective of this project is to provide quality assured surface water quality monitoring data to support development of bacteria TMDLs for Copano Bay and Mission and Aransas Rivers in Aransas, Bee, Goliad, Karnes, Refugio, and San Patricio Counties.	NRA	1 /1 /2007 9 /30/2009	$214,388

TEXAS STATE SOIL & WATER CONSERVATION BOARD

SEMI - ANNUAL REPORT

TO THE

GOVERNOR,
LIEUTENANT GOVERNOR,
AND
SPEAKER OF THE HOUSE

JANUARY 1, 2008

Forward

In response to S.B. 1828 passed by the 78th Texas Legislature in Regular Session, 2003, the Texas State Soil and Water Conservation Board presents this review of its programs and activities. S.B. 1828 added §201.028 to the Texas Agriculture Code to provide that the TSSWCB shall prepare and deliver to the Governor, the Lieutenant Governor, and the Speaker of the House of Representatives a report, not later than January 1 and July 1 of each year, relating to the status of the budget areas of responsibility assigned to the State Board including outreach programs, grants made and received, federal funding applied for and received, special projects, and oversight of soil and water conservation district activities.

The FY08 Operating Budget with past expenditures is attached to this report. Information on grants made to local districts and other entities is incorporated within the program section it involves. Ongoing Federal grant program projects under the Clean Water Act are provided in another attachment.

The Texas State Soil & Water Conservation Board takes pride in the accomplishments and remarkable progress that have been made in soil and water conservation in this state. Often environmental successes are slow to be realized. We have realized and previously reported one success story that involves reducing the level of Atrazine in several water bodies, particularly the Aquilla Reservoir in the Hill County-Blackland SWCD.

However, we recognize there remains a continuing challenge and an ongoing need to ensure our land has the capability to produce food and fiber for future Texans. Because of changes in land use, ownership, technology, and population growth, the need for soil and water conservation programs will remain critical. Texas has a finite number of acres to provide for the needs and desires of citizens and visitors, and this places an ever-increasing demand on agricultural land. Farmers and ranchers face complex decisions concerning the best ways to manage and utilize the land available to them.

We believe that soil and water conservation programs must remain dynamic as land uses change and technology improves to make some conservation practices more capable of meeting demands on soil and water resources. We also maintain the belief that the purpose of the soil and water conservation program is to promote the wise use of our renewable natural resources and provide for the conservation and enhancement of the soil and water resources of this state through and by the dynamic decisions of local soil and water conservation districts which promotes the use of each acre of land within its capabilities and treating it according to its needs.

From the beginning, the Texas State Soil and Water Conservation Board and local soil and water conservation districts have formed an organizational framework through which various complex governmental conservation programs are delivered to local landowners and operators. This relationship has successfully been utilized to disseminate sound management techniques and practices to maintain individual productive land uses to provide for the needs of present and future generations.

To the landowners of Texas, the individual soil and water conservation district directors, and the many agencies and organizations assisting and working with our programs, we offer our sincere thanks.

Table of Contents

	Page
Historical Background	4
Organization	6
Staff	7
Soil and Water Conservation Districts	8
Annual State Meeting Of Soil and Water Conservation District Directors	10
Director Mileage and Per Diem	10
District Technical Assistance Funds	10
Agricultural Water Conservation Grant	10
District Conservation Assistance Program	11
Programs and Activities of the TSSWCB	11
Statewide Nonpoint Source Management Program	12
Total Maximum Daily Load Program	13
Bacteria Total Maximum Daily Load Task Force	15
Watershed Protection Plan Program	16
Water Quality Management Plan Program	19
Poultry Water Quality Management Plan Initiative	22
Comprehensive Nutrient Management Plan Program	24
Statewide Bacterial Water Quality Impairment Reduction Initiative	24
Coastal Management Program	25
Background	25
Current Status	26
Information Technology	27
Public Information /Education Report	29
General Overview	29
2007 Summer Teacher Workshops	29
2008 Texas Conservation Awards Program	29
Soil & Water Stewardship Public Speaking Contest	32
Wildlife Alliance For Youth	32
State Woodland Clinic and Contest	33
Regional Woodland Clinic	33
Conservation Education Video Library	33
Nonpoint Source (NPS) Pollution Watershed Flow Model	34
Water Conservation Enhancement Program Status Report	34
TSSWCB FY08 Operating Budget	36
Ongoing Clean Water Act, §319(h) Grant Program Projects	Atch 1

Historical Background

In the early history of the United States, those involved in agriculture often did not consider the conservation of soil and water resources. Land was cleared and put into farm production. When the land quit producing at a profitable level, the farmers merely moved on to new land farther west and started the process over again. There was no need to be concerned with soil conservation, as there was a seemingly unlimited supply of virgin land waiting to be tilled. This process continued through the 1800s and into the early 1900s. With the outbreak of World War I, farmers in the Great Plains states were encouraged to break out native grassland to grow wheat and other foodstuffs to feed the nation and the world. As a result of these and other unwise management practices and the fact that the farmlands were experiencing long periods of drought, the 1930s produced some of the worst dust storms the nation had ever seen. Clouds of dust rolled across the plains states sending dust storms through the south and into the nation's capital. At the same time, the nation was in the midst of a great economic depression. The federal government, seeking ways to put people back to work and encourage conservation, created the Civilian Conservation Corps and Soil Erosion Service. Through these mechanisms, demonstration projects were initiated to train technicians and to educate the public in ways to conserve soil resources. These programs were successful in putting people back to work, but lacked the local ties to establish lasting conservation programs.

One of the early day leaders in the national effort to control soil erosion was Hugh Hammond Bennett from North Carolina. After graduation from the University of North Carolina in 1903, Hugh Bennett took a job with the Bureau of Soils in the United States Department of Agriculture. Because of his experience, scientific knowledge and leadership ability, he was put in charge of the Soil Erosion Service when it was created in 1933. In 1935, P.L. (Public Law) 46 was passed creating the Soil Conservation Service within the U.S. Department of Agriculture and Hugh Bennett became the first Chief of the agency. He soon became internationally known for his accomplishments in conservation work.

With the help of Congressman Buchannan from Columbus, Texas, Hugh Bennett was able to persuade President Franklin Roosevelt that the soil resources of this nation were being wasted. He convinced the President that a Model Soil Conservation Act should be developed and sent to the governors of each state for passage by their state legislatures. The purpose of this Model Act would be to develop programs at the state and local level to control soil erosion.

In 1936, such a Model Act was sent to the governors with the endorsement of President Roosevelt. The Model Act, developed in Washington, was patterned after the Texas Wind Erosion Act, the Grass Conservation Acts in the Northern High Plains and certain water conservation district law.

In 1937 legislation was introduced in the Texas Legislature based on this Model Act. It is reported that as many as 25 different versions of this soil conservation law were considered before a final version was passed. There was much heated discussion of the proposed legislation. When the final version was adopted, the bill contained many undesirable features. The law would have set up Soil Conservation Districts automatically on a county basis and made County Commissioners Courts the governing body. A portion of the county tax was to be used to finance the program and county agricultural agents were to be the administrative officers.

A number of agricultural leaders from across the state had, by this time, become concerned about the newly passed legislation. It was their opinion that, if the responsibility for installing and maintaining conservation measures lay in the hands of the land owners, the control of such a program should also be

in their hands. As a result of these and other concerns, a group of landowners led by V.C. Marshall of Heidenheimer, Texas, convinced the Governor to veto the 1937 legislation.

Hard feelings among agricultural leaders resulted from the attempt to pass this soil conservation law. Under the leadership of Mr. Marshall, a concerted effort was made during the interim between legislative sessions to heal the old wounds and to put together a version of a law that would be generally accepted by the farmers and ranchers of Texas. Mr. Marshall organized a committee of leaders from across the state to promote the passage of a new Soil Conservation Law. He traveled many miles at his own expense seeking the views of agricultural leaders and promoting the idea of the Soil Conservation District Program.

The key points Mr. Marshall felt should be included in the new law were that (1) farmers and ranchers should determine whether or not a Soil Conservation District was needed and hold a local option election prior to the establishment of the district; (2) the program should be controlled by landowners; and (3) the Soil Conservation Districts should have no taxing authority or the power of eminent domain.

In 1939 the Texas Legislature passed H.B. (House Bill) 20 which incorporated those features and was the first Soil Conservation Law for the state. The law created the State Soil Conservation Board and allowed for the creation of the Soil Conservation Districts. Mr. Marshall was elected as the first Chairman of the Soil Conservation Board and later resigned to become the first Executive Director of the agency.

On April 30, 1940, the Secretary of the State issued Certificates of Organization for the first 16 Soil Conservation Districts paving the way for the program we now operate. Today, Texas has 217 local soil and water conservation districts that encompass more than 99% of the state.

As previously mentioned, the Model Act endorsed by President Roosevelt was in part patterned after the Texas Wind Erosion Act. Texas was already making attempts to address soil conservation as a result of the "Dust Bowl" days of the 1930s. The 44th Legislature in 1935 passed legislation authorizing the establishment of Wind Erosion Conservation Districts. This law provided for the creation of districts to "conserve the soil by prevention of unnecessary erosion caused by winds, and the reclamation of lands that have been depreciated or denuded of soil by reasons of winds." Although a number of Wind Erosion Control Districts were created, the passage of the Soil Conservation District Law in 1939 resulted in those districts becoming dormant.

In 1975, Governor Dolph Briscoe, by Executive Order, designated the TSSWCB as lead agency to assume the planning and management responsibility for control of agricultural and silvicultural nonpoint source pollution as required by the Federal Water Pollution Control Act.

In 1981 the 67th Legislature passed H.B. 1436, which for the first time codified the agricultural laws of Texas. Title 7, Chapter 201 of this code contains the portion pertaining to Soil and Water Conservation.

In 1985 the 69th Legislature passed S.B. 1083 creating a Brush Control Program in Texas and granting new powers and responsibilities, without funding, to the TSSWCB and Soil and Water Conservation Districts under Chapter 203 of the Agriculture Code. In 1999, the TSSWCB received its first appropriation in the FY00-01 biennium to control water-depleting brush and trees, such as cedar and mesquite. The program received $9.1 million to establish a pilot project in the North Concho Watershed.

In 1993, the 73rd Legislature passed S.B. 503 which named the TSSWCB the lead agency to address water quality issues relating to runoff from diffused, or nonpoint sources resulting from agricultural and forestry operations. In 1999, the Legislature expanded the TSSWCB's environmental mission and appropriated money to address water pollution from nonpoint sources under a separate, federally mandated program.

The leaders who framed the Texas Soil and Water Conservation Law in 1939 recognized that landowners and operators of private land constitute the basic resource for the conservation of our renewable natural resources. Without the support and willing participation of private landowners and operators in the development and implementation of soil and water conservation programs there is little hope of success. Local soil and water conservation districts led by farmers and ranchers who know the land and the local conditions and problems have the means to develop conservation plans that address each acre of land specific to its needs to solve or reduce the severity of its problems.

Organization

Since inception, the TSSWCB has been governed by five board members, elected by delegates from each of five regions of the state's 217 local soil and water conservation districts. Elections occur annually at regional conventions of the local soil and water conservation districts, with members serving two-year staggered terms. However, with the enactment of S.B. 1828 by the 78th Legislature, two Governor appointees join the five elected board members to create a seven-member board. The two Governor appointed positions are listed below. The term of one member appointed by the Governor expires February 1 of each odd-numbered year, and the term of the other member appointed by the Governor expires on February 1 of each even-numbered year.

Elected State Board members must be 18 years of age or older; hold title to farmland or ranchland; and be actively engaged in farming or ranching. The Governor appointees must be actively engaged in the business of farming, animal husbandry, or other business related to agriculture and wholly or partly owns or leases land used in connection with that business; and may not be a member of the board of directors of a conservation district.

The State Board elects its own Chair and generally meets every odd month, unless specific programs or issues require more immediate action. The following list shows the current Board members and shows which State Board Region they represent.

Texas State Soil and Water Conservation Board

Member Name	**Region**	**Term**	**Residence**
Aubrey L. Russell	#1	May 1, 2007 – May 5, 2009	Panhandle
Reed Stewart	#2	May 2, 2006 - May 6, 2008	Sterling City
José O. Dodier, Jr.	#3	May 1, 2007 – May 5, 2009	Zapata
Jerry D. Nichols	#4	May 2, 2006 – May 6, 2008	Nacogdoches
Barry Mahler	#5	May 1, 2007 – May 5, 2009	Iowa Park
Larry D. Jacobs	Appointed	February 1, 2006-February 1, 2008	Montgomery
Joe L. Ward	Appointed	February 1, 2007-February 1, 2009	Telephone

Staff

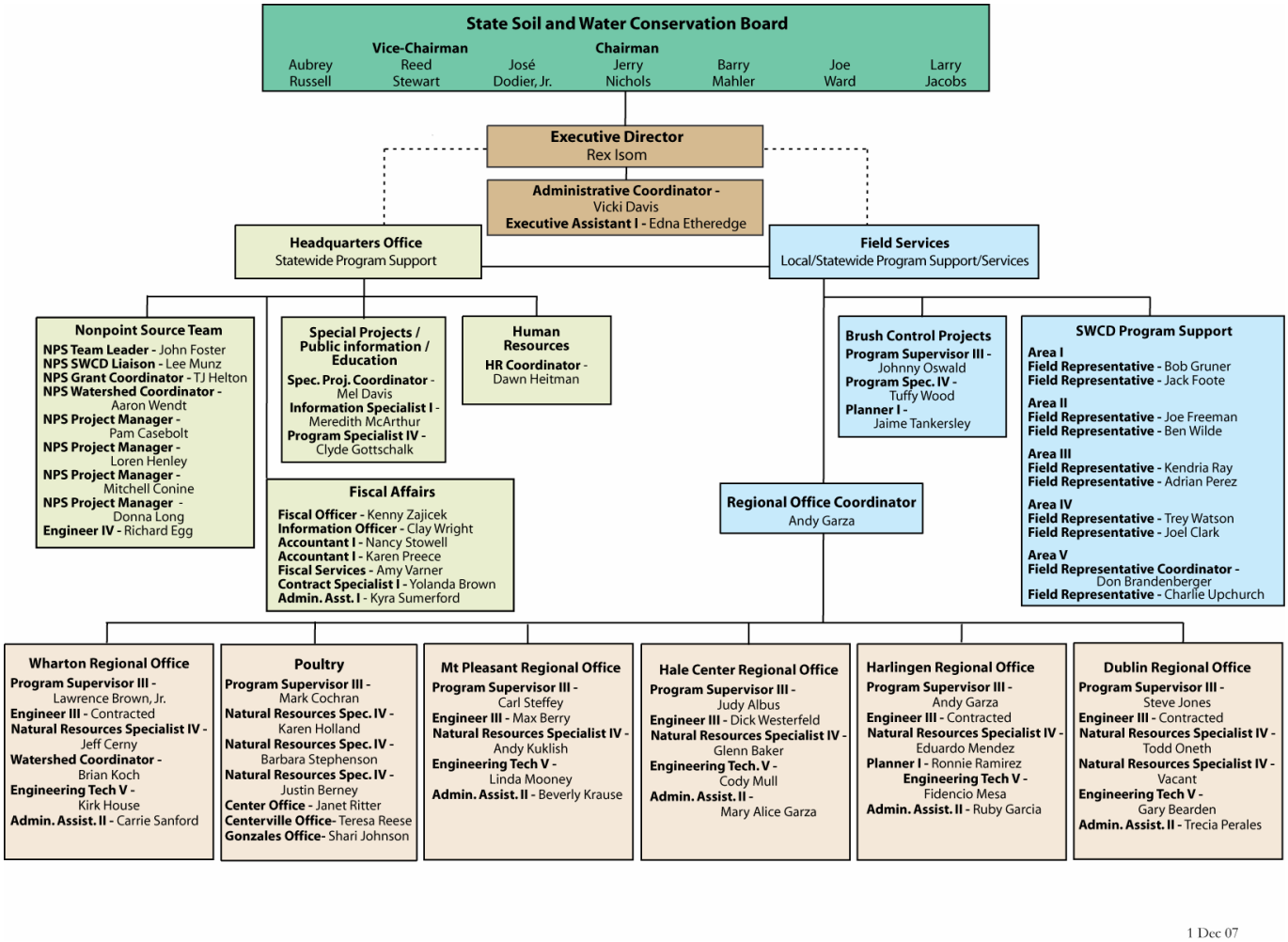
Mr. Rex Isom was named as the Executive Director in January 2004 and continues to carry out the directives of the State Board and directing staff efforts. We emphasize our agency philosophy as stated in our Strategic Plan, "The State Soil and Water Conservation Board will act in accordance with the highest standards of ethics, accountability, efficiency, and openness. We affirm that the conservation of our natural resources is both a public and a private benefit, and we approach our activities with a deep sense of purpose and responsibility." Mr. Isom, as Executive Director, is leading the agency in that direction and expects all employees to follow that lead.

The 80th Legislature authorized appropriations for 4 additional full-time employees (FTEs) for the Water Quality Management Plan Program to conduct activities related to poultry production, and an additional 2 full-time employees to facilitate the development and implementation of Total Maximum Daily Loads.

As of December 1, 2007 the TSSWCB employed 67 staff, 22 of which work in the Temple headquarters. The remaining employees are field staff, either working out of their homes or located in seven satellite offices; five regional offices and two program specific offices, located throughout the state. Due to difficulty in recruiting engineers, two field engineer positions remain contracted. The following organization chart shows the agency's current structure.

The current structure of the TSSWCB reflects efforts to maintain more personnel in the field and away from headquarters for a 67% to 33% ratio of Field personnel to Headquarters personnel.

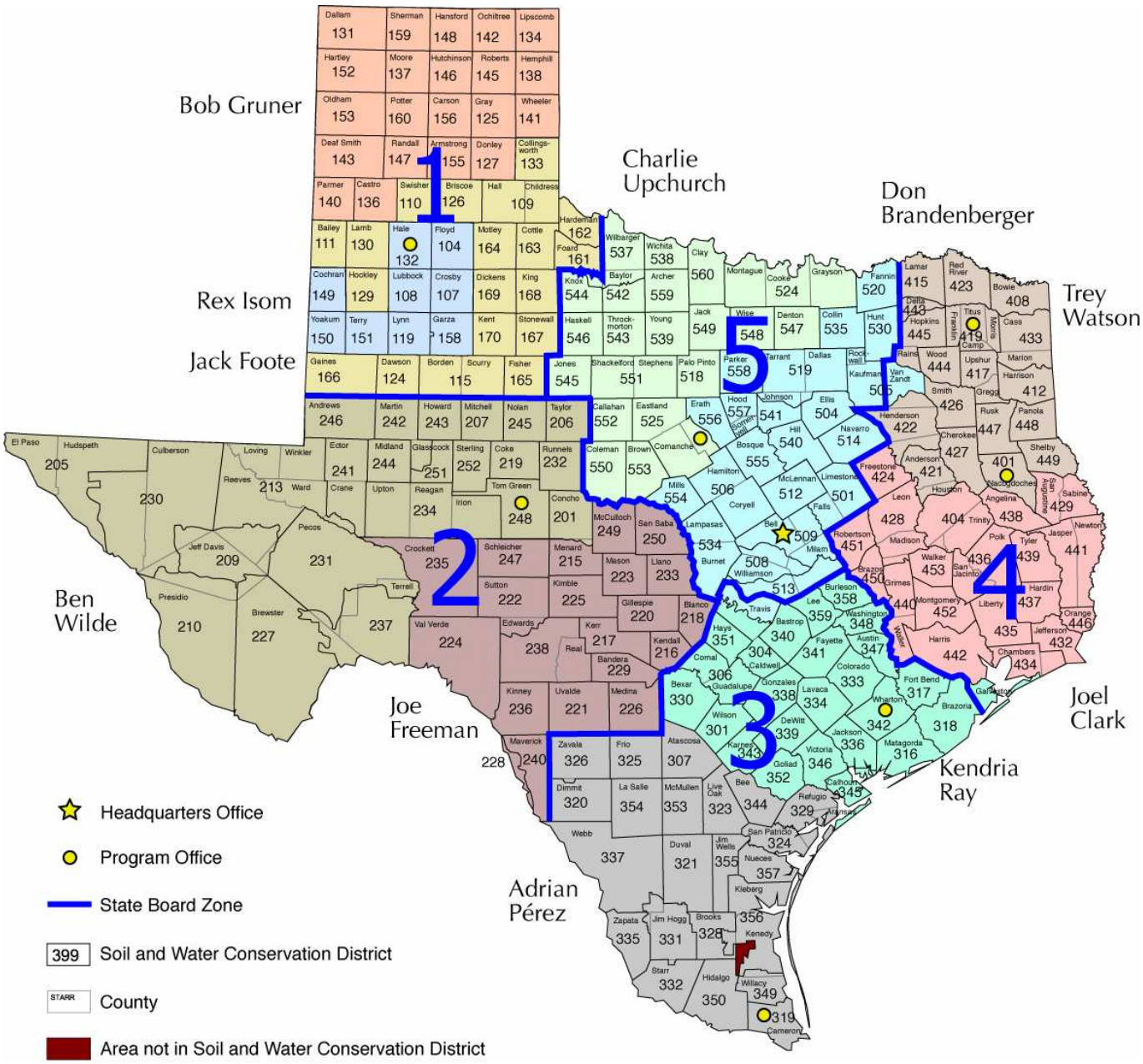
The regional office staff along with the program specific staff provides on-site technical assistance to farmers and ranchers. The field staff serves as a liaison between the TSSWCB and local districts. The field staff also provides assistance to local districts and district employees concerning operations, programs, and activities. The regional office staff and the program specific staff coordinates with the Texas Commission on Environmental Quality (TCEQ), Texas Cooperative Extension (TCE), and the USDA's Natural Resource Conservation Service (NRCS) to provide technical assistance to landowners to implement Water Quality Management Plans (WQMPs).



Soil and Water Conservation Districts

The TSSWCB performs many of its activities in coordination with the state's 217 local soil and water conservation districts. These local districts are political subdivisions of the state, established through local option elections of agricultural landowners. Districts generally reflect county boundaries, but may also follow river basin or watershed boundaries, depending on the desires of the local landowners.

The following soil and water conservation district map shows the current 217 local districts that cover almost the entire state. That portion of the state not in a soil and water conservation district is in Kenedy County and contains the privately owned King Ranch. The map also shows the grouping of the districts into the five State Board Districts that respectively elect a State Board member and shows the field staff that is assigned to work with each district within a specific area.



Landowners within these local districts elect the five district directors that comprise the districts governing body or board of directors. This board of directors administers the programs and activities of the district. Representatives of the districts within each region then elect the members of the State Board through a series of convention style-elections.

Districts do not have taxing authority and rely on locally generated funds from various activities and programs, federal assistance, county assistance, and state assistance from the TSSWCB. The USDA Natural Resource Conservation Service (NRCS) provides most of the federal assistance available to districts and through cooperative agreements provides technical assistance to farmers and ranchers requesting assistance from the district.

Annual State Meeting Of Soil and Water Conservation District Directors

The Annual State Meeting of Soil and Water Conservation District Directors, required in §201.081, Texas Agriculture Code, convened in Waco October 2007. There were 122 districts represented, with 256 individual district directors that registered for the meeting. The total registration was 651.

For the 2008 calendar year, the state meeting is scheduled for September 29-30 and October 1 in Galveston.

Director Mileage and Per Diem

The passage of H.B. 496 by the 80th Legislature allows for an increase in the reimbursement rate for District Director Mileage claims from 18 cents to the current state rate of 48.5 cents per mile. However, the legislation did not provide additional funding to cover the cost of the increase.

At its November 2007 Meeting, the TSSWCB approved an additional $83,000 to supplement Director Mileage & Per Diem allocations for FY 2008 claims only. The total program appropriation for FY 2008 will be $408,000. In FY 2009, allocations will revert back to the original program appropriation of $325,000. The TSSWCB anticipates working with the Legislature to pursue a supplemental appropriation in January 2009.

District Technical Assistance Funds

The 80th Legislature provided Districts with an approximate 40% increase in Technical Assistance Funds for the 2008-09 Biennium. The TSSWCB disburses Technical Assistance payments to Districts on a reimbursing basis to supplement their efforts in providing assistance to agricultural producers in the state. Distributions are contingent upon Districts filing annual performance reports with the TSSWCB. The FY 2008 appropriation for this program is $1,439,445.00.

Agricultural Water Conservation Grant

The TSSWCB, on behalf of local soil and water conservation districts, applied to the TWDB for grant funding to continue the agricultural water conservation program. Soil and water conservation districts provide technical and planning assistance to agricultural producers for implementing conservation best management practices on their farms and ranches.

The TSSWCB received an agricultural water conservation grant of $100,000 from the TWDB for fiscal year 2007. The funds from the grant were allocated to eligible soil and water conservation districts to support technical assistance in planning agricultural water conserving best management practices on farms and ranches. Eligible best management practices are those that directly or indirectly produce water savings and those that reduce erosion, a cause of increased sedimentation of Texas' surface water reservoirs. The grant award of $100,000 supplements $100,000 in technical assistance funding allocated to local soil and water conservation districts for support of planning and implementing conservation best management practices on farms and ranches.

A total of 199 soil and water conservation districts participated in this program for FY 07. This is the third year the TSSWCB has participated in this grant program. A draft final report has been completed. The assistance performed by these soil and water conservation districts yielded in over 475,000 ac-ft of potential water savings for the State. The program in previous years has resulted in an estimated 870,000 ac-ft potential water savings for the State.

District Conservation Assistance Program

The 80th Legislature provided Conservation Assistance Grants to Districts for the 2008-09 Biennium. The grants are awarded on a matching basis requiring Districts to raise funds from sources other than the TSSWCB. Districts do not have taxing authority and use locally raised funds with this matching grant to support their operational expenses. The FY 2008 appropriation for this program is $916,364.00.

Programs & Activities of the TSSWCB

The services and programs provided by the TSSWCB target rural Texas farmers and ranchers, but the results of these services benefit all Texans. For example, many of the flood control structures maintained by soil and water conservation districts serve to protect heavily populated areas from flood damage, and also prevent sediment from building up in suburban drinking water supplies. Another example is the use of best management practices, implemented through TSSWCB-certified water quality management plans, to prevent pesticides, nutrients, bacteria and other contaminants from impairing Texas waters.

The agency is responsible for numerous natural resource conservation efforts, the most prominent of which is serving as the lead state agency for the prevention, management, and abatement of nonpoint source pollution resulting from agricultural and silvicultural (forestry-related) activities. To fulfill this mandate, the agency jointly administers the Texas Nonpoint Source Management Program. As a result, the majority of the agency's programs and services aim to improve and protect water quality, including the Water Quality Management Plan Program, the Clean Water Act §319(h) Nonpoint Source Grant Program, the Total Maximum Daily Load Program and the Watershed Protection Plan Program.

The TSSWCB is also responsible for water conservation and enhancement. The major existing program addressing water conservation and enhancement is the Texas Brush Control Program, although the agency is conducting preliminary work on a new program that would provide assistance to Texas landowners who irrigate cropland from both ground and surface water sources. The Water Conservation Implementation Task Force, created by the 78th Texas Legislature through Senate Bill 1094 introduced by Senator Duncan, issued a final report to the 79th Texas Legislature recommending a state cost-share program be implemented through the TSSWCB to assist landowners in implementing best management practices that conserve water resources. If the agency is asked by the Legislature to fully develop the new program, it would likely be patterned after the Water Quality Management Plan Program created by Senate Bill 503 in 1993.

Other responsibilities include prevention of soil erosion, control of floods, maintaining the navigability of waterways, the preservation of wildlife, protection of public lands, and providing information to landowners regarding the jurisdictions of the TSSWCB and the Texas Commission on Environmental Quality (TCEQ) related to nonpoint source pollution. The TSSWCB has no regulatory functions; all of the agency's programs and services are voluntary in nature.

Statewide Nonpoint Source Management Program

Congress enacted Section 319(h) of the Clean Water Act in 1987, establishing a national program to control nonpoint sources of water pollution. Through §319(h), federal funds are appropriated to the U.S. Environmental Protection Agency (EPA) and then granted to the states for the development and implementation of the State's Nonpoint Source Management Program. Texas' share of the §319(h) funding is divided evenly between the TCEQ and TSSWCB.

An approved management program is a requirement for receiving §319(h) grant funding. The *Texas Nonpoint Source Management Program* is jointly administered by the TSSWCB and the TCEQ. The *Program* was revised for 2005-2010 and, after going through extensive public comment and review, was approved by the TSSWCB on September 15, 2005 and by TCEQ on October 26, 2005. The *Program* was certified by the Attorney General's Office and was submitted by the Governor to EPA on December 15, 2005. The *Program* was approved by EPA on February 10, 2006.

TSSWCB currently has 87 active, ongoing §319(h) projects (Attachment 1). The $25.5 million invested in these projects through Clean Water Act §319(h) Nonpoint Source Grants between 2001 and 2007 is being utilized to address a wide array of agricultural and silvicultural NPS issues (Figure 1). Specific project actions include developing and implementing Watershed Protection Plans (WPPs) and Total Maximum Daily Loads (TMDLs); supporting targeted educational programs; and implementing BMP's to abate NPS pollution from dairy and poultry operations, silvicultural activities, grazing operations, and row crop operations. Quarterly reports for ongoing projects were received on July 15, 2007 and October 15, 2007. To date, project reports have been received for 100% of the projects. These reports are entered semi-annually into EPA's Grants Reporting and Tracking System.

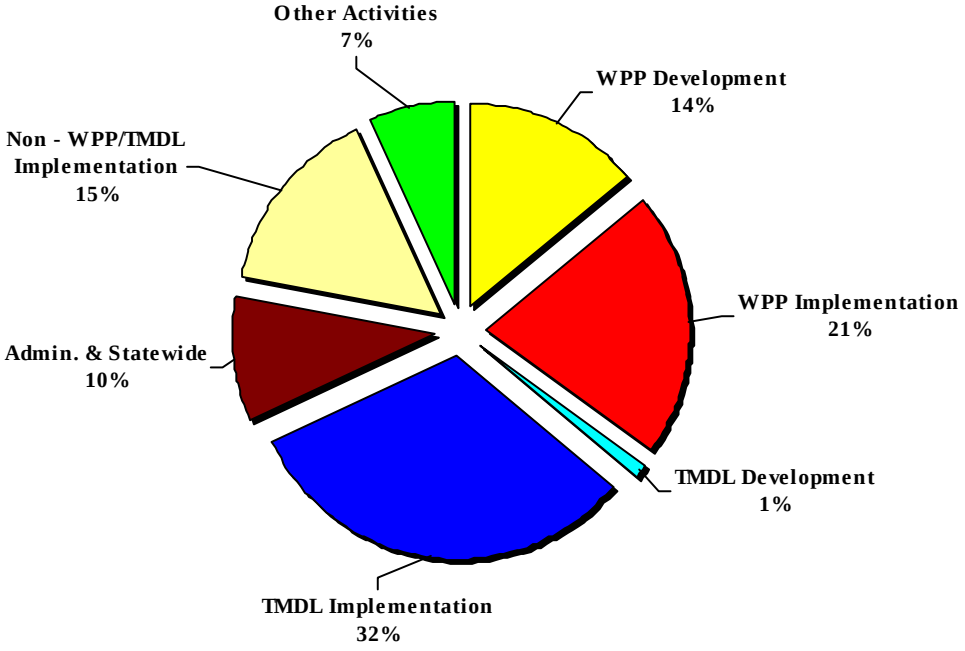


Figure 1 – TSSWCB active Clean Water Act §319(h) grants for FY 2001-2007.

For more information on the TSSWCB Statewide Nonpoint Source Management Program, visit our website at http://www.tsswcb.state.tx.us/managementprogram.

Total Maximum Daily Load Program

The federal Clean Water Act requires Texas, and other states, to identify lakes, rivers, streams and estuaries failing to meet or not expected to meet water quality standards and not supporting their designated uses (swimming, drinking, aquatic life, etc.). This list of impaired waterbodies is known as the *Texas 303(d) List* and must be submitted to the EPA for review and approval every two years by TCEQ.

The State must then establish a Total Maximum Daily Load (TMDL) for certain waterbodies identified on the *303(d) List*. A TMDL defines the maximum amount of a pollutant that a waterbody can assimilate on a daily basis and still meet water quality standards. The pollution reduction goal set by the TMDL is necessary to restore attainment of the designated use of the impaired waterbody. The maximum amount of pollutant is determined by conducting a detailed water quality assessment that provides the information for a TMDL to allocate pollutant loads between point sources and nonpoint sources. It also takes into account a margin of safety, which reflects uncertainty and future growth.

Based on the environmental target of the TMDL, an Implementation Plan (I-Plan) is then developed that prescribes the measures necessary to mitigate anthropogenic (human-caused) sources of that pollutant in that waterbody. The I-Plan specifies limits for point source dischargers and recommends best management practices for nonpoint sources. It also lays out a schedule for implementation. Together, the TMDL and the I-Plan serve as the mechanism to reduce the pollutant, restore the full use of the waterbody and remove it from the *303(d) List*. EPA must approve the TMDL, but the I-Plan only requires State approval.

With authority as the lead agency in Texas for planning, implementing, and managing programs and practices for preventing and abating agricultural and silvicultural nonpoint source pollution, TSSWCB shares responsibility with TCEQ in implementing the Texas TMDL Program. TSSWCB is committed to funding, through federal grants and state appropriations, and collaborating on TMDL projects encompassing monitoring, assessment, modeling, planning, education and implementation (Figure 2).

On September 27, 2006, at a joint meeting, the TSSWCB and TCEQ renewed this partnership and approved a revised *Memorandum of Agreement on Total Maximum Daily Loads, Implementation Plans, and Watershed Protection Plans*. This framework for collaboration between the two agencies describes the programmatic mechanisms employed to develop and implement TMDLs and I-Plans.

On May 24, 2007, the TSSWCB approved the *TSSWCB Policy on Total Maximum Daily Loads* which provides guidance to staff on directing state appropriations for the TMDL Program. On July 19, 2007, the Board approved an operating budget for FY2008 that allocated $1,200,494 in state appropriations to TMDL Program grants. These monies are being directed to projects that support 1) increased analytical infrastructure at Bacterial Source Tracking laboratories (49%), 2) implementation of NPS components of TMDL I-Plans (14%), and 3) development of TMDLs through the collection and evaluation of water quality data (37%).

TSSWCB is engaged in implementation activities that support approved I-Plans addressing agricultural or silvicultural nonpoint source load reductions described in approved TMDLs:

- Aquilla Reservoir – Atrazine (Approved 2002)
- Colorado River below E.V. Spence Reservoir – Salinity (Approved 2007)
- E.V. Spence Reservoir – Salinity (Approved 2001)
- North Bosque River – Nutrients (Approved 2002)

TSSWCB is collaborating with stakeholders on the development of I-Plans for approved TMDLs that contain agricultural or silvicultural nonpoint source load reductions:

- Adams and Cow Bayous – Bacteria, Dissolved Oxygen, and pH (Approved 2007)
- Gilleland Creek – Bacteria (Approved (2007)
- Guadalupe River above Canyon Lake – Bacteria (Approved 2007)
- Lake O' the Pines – Dissolved Oxygen (Approved 2006)
- Oso Bay – Bacteria (Approved 2007)
- Upper Oyster Creek – Bacteria (Approved 2007)

TSSWCB is actively involved in the development of TMDLs for waterbodies impaired due to known or suspected agricultural or silvicultural nonpoint source pollution:

- Arroyo Colorado – Dissolved Oxygen
- Atascosa River – Bacteria
- Big Cypress Creek – Bacteria
- Clear Creek – Bacteria
- Copano Bay and Aransas and Mission Rivers – Bacteria
- Dickinson Bayou – Bacteria and Dissolved Oxygen
- Elm and Sandies Creeks – Bacteria and Dissolved Oxygen
- Lake Houston – Bacteria
- Leon River below Proctor Lake – Bacteria
- Little Brazos River Tributaries – Bacteria
- Lower San Antonio River – Bacteria
- Oso Creek – Bacteria
- Peach Creek – Bacteria
- Upper Oyster Creek – Dissolved Oxygen
- Upper Trinity River – Bacteria

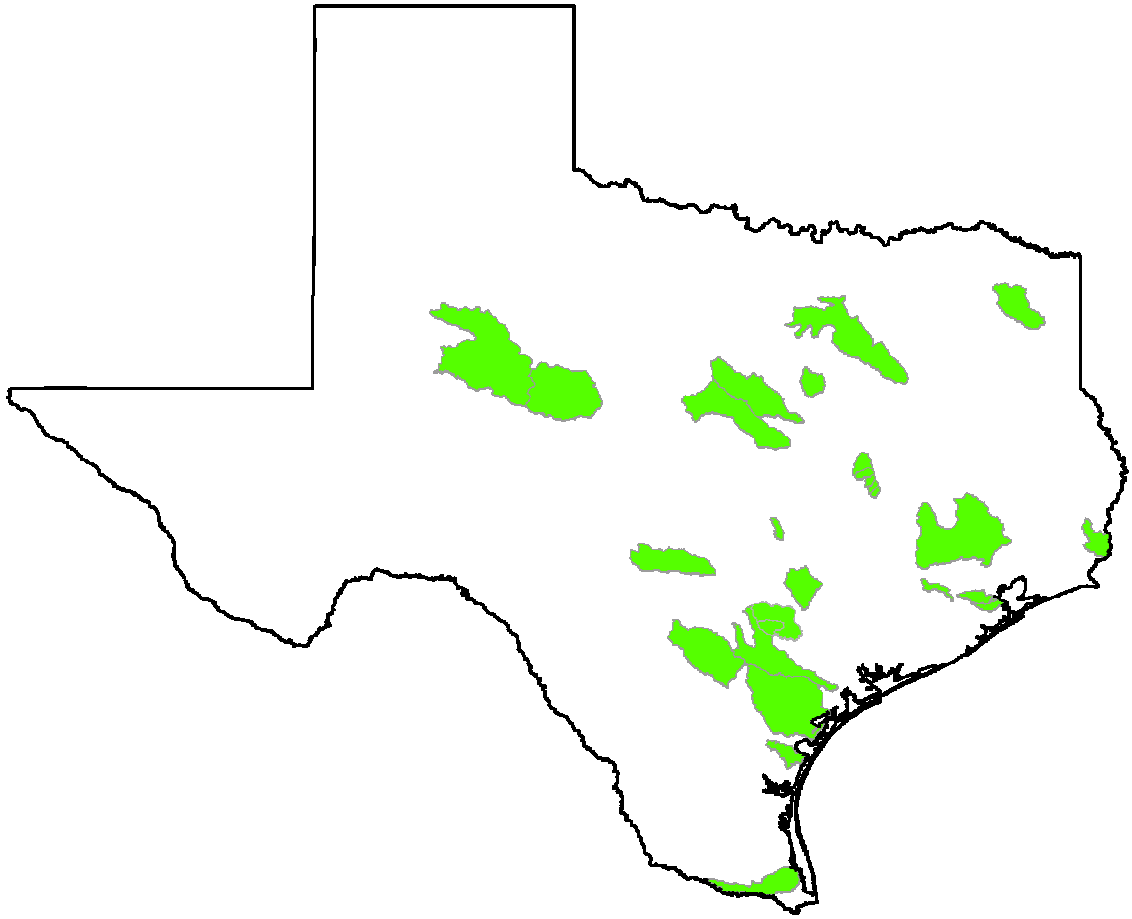


Figure 2 – Map of watersheds where TSSWCB is engaged in developing or implementing TMDLs and I-Plans.

In order to abate agricultural and silvicultural NPS pollution, TMDLs and I-Plans will implement components of other TSSWCB Programs, such as the Water Quality Management Plan Program or the Water Conservation and Enhancement Program. Additionally, the Clean Water Act §319(h) Nonpoint Source Grant Program can serve as a funding source to implement the agricultural and silvicultural components of I-Plans. These programs are described in detail in other sections of this Report.

For more information on the TSSWCB Total Maximum Daily Load Program, visit our website at http://www.tsswcb.state.tx.us/tmdl.

Bacteria Total Maximum Daily Load Task Force

On September 27, 2006, at a joint meeting, the TSSWCB and the TCEQ established a joint technical Task Force on Bacteria TMDLs. The Task Force was charged with:

- examining approaches other states use to develop and implement bacteria TMDLs,
- making recommendations on cost-effective and time-efficient methods for developing TMDLs,
- making recommendations on effective approaches for developing I-Plans,
- evaluating the variety of models and bacterial source tracking methods available for developing TMDLs and I-Plans and recommending under what conditions certain methods are more appropriate, and

- developing a roadmap for further scientific research needed to reduce uncertainty in what we know about how bacteria behave under different water conditions in Texas.

Appointed members of the Task Force included:

- Dr. Allan Jones, Texas Water Resources Institute (chair),
- Dr. George DiGiovanni, Texas Agricultural Experiment Station–El Paso,
- Dr. Larry Hauck, Texas Institute for Applied Environmental Research,
- Dr. Joanna Mott, Texas A&M University–Corpus Christi,
- Dr. Hanadi Rifai, University of Houston,
- Dr. Raghavan Srinivasan, Texas A&M University, and
- Dr. George Ward, University of Texas at Austin.

Throughout fall 2006, the Task Force completed their assessment and developed their recommendations. During the process, the Task Force received input and guidance from approximately 50 Expert Advisors with expertise on bacteria related issues from non-governmental organizations and local, state, and federal agencies.

The 3rd draft of the Task Force Report was delivered to the TSSWCB and the TCEQ on January 25, 2007. A 4th draft correcting inconsistencies in the Executive Summary and the body of the Report was published June 4, 2007. All Task Force materials, including background resource materials, summaries of meetings, all drafts of the Report, and all comments received on the Report, are available at http://twri.tamu.edu/bacteriatmdl/.

The Task Force recommended the use of a Three-Tier Approach for bacteria TMDL and I-Plan development that is designed to be cost-effective, time-efficient, scientifically credible and accountable to watershed stakeholders. The Tiers move through increasingly aggressive levels of data collection and analysis in order to achieve stakeholder consensus on needed load reductions and strategies to achieve those reductions.

On June 29, 2007, at a joint meeting, the TSSWCB and the TCEQ adopted the principles and general process recommended by the Task Force. The Board directed TSSWCB staff to work with the staff of the TCEQ to:

- incorporate the principles of the recommendations into an updated joint-agency TMDL guidance document,
- move diligently to expedite the development of bacteria TMDLs that were paused during the work of the Task Force, and
- establish a multi-agency bacteria work group to continue examining the scientific research and development needs identified in the Report.

The TCEQ approved an identical set of directives. TSSWCB staff are currently working to implement these directives.

Watershed Protection Plan Program

Watershed Protection Plans (WPPs) are locally-driven projects that serve as a mechanism for addressing complex water quality problems that cross multiple jurisdictions. WPPs are coordinated frameworks for implementing prioritized and integrated water quality protection and restoration strategies driven by environmental objectives. Through the WPP process, TSSWCB encourages stakeholders to holistically

address all the sources and causes of impairments and threats to both surface and ground water resources within a watershed.

WPPs serve as tools to better leverage the resources of local governments, state and federal agencies, and non-governmental organizations. WPPs integrate activities and prioritize implementation projects based upon technical merit and benefits to the community, promote a unified approach to seeking funding for implementation, and create a coordinated public communication and education program. Developed and implemented through diverse, well integrated partnerships, a WPP assures the long-term health of the watershed with strategies for protecting unimpaired waters and restoring impaired waters.

WPPs have a variety of ingredients and can take many forms. TSSWCB-sponsored WPPs are consistent with guidelines promulgated by EPA in 2003. These guidelines describe nine elements fundamental to a potentially successful plan. The TCEQ also sponsors WPPs based on EPA's guidelines. EPA requires certain expenditures through §319(h) grants to be in accordance with a WPP.

TSSWCB provides technical and financial assistance to local stakeholder groups to develop and implement WPPs through several mechanisms (Figure 3). One, a TSSWCB Regional Watershed Coordinator facilitates the WPP process in watersheds throughout their service area. Currently, the Wharton Regional Office is piloting this method in southeast and south central Texas. Two, through §319(h) grants, entities are provided financial assistance necessary to facilitate the WPP process in specific watersheds with significant agricultural or silvicultural nonpoint source pollution. Three, TSSWCB staff provide technical assistance in developing WPPs which are funded and facilitated by other entities, such as the TCEQ.

Partnerships with Texas Cooperative Extension, Texas Water Resources Institute and TCEQ are resulting in the development of training programs for local stakeholder groups and watershed coordinators. The Texas Watershed Steward Program supports the development and implementation of WPPs by promoting a sustainable proactive approach to managing water quality at the local level and by empowering individuals to take leadership roles in the stewardship of water resources. The Texas Watershed Planning Short Course will deliver training to watershed coordinators and water professionals which is needed to ensure WPPs are adequately planned, coordinated, implemented and results properly assessed and reported.

On September 27, 2006, at a joint meeting, the TSSWCB and TCEQ approved a revised *Memorandum of Agreement on Total Maximum Daily Loads, Implementation Plans, and Watershed Protection Plans.* This framework for collaboration between the two agencies describes the programmatic mechanisms employed to develop and implement WPPs.

WPP development projects currently sponsored by TSSWCB (red in Figure 3) have significant agricultural or silvicultural nonpoint source pollution components and are all funded through §319(h) grants:

- Buck Creek – Texas Agricultural Experiment Station and Texas Water Resources Institute
- Concho River – Upper Colorado River Authority
- Lake Granger – Brazos River Authority and Texas Agricultural Experiment Station
- Lampasas River – Texas Agricultural Experiment Station
- Leon River – Brazos River Authority
- Pecos River – Texas Cooperative Extension and Texas Water Resources Institute
- Plum Creek –Texas Cooperative Extension

While WPP development projects sponsored by TCEQ (purple in Figure 3) have significant water quality issues related to urban nonpoint source pollution or wastewater treatment, most, to varying degrees, have agricultural or silvicultural nonpoint source pollution components:

- Arroyo Colorado – Texas Water Resources Institute
- Bastrop Bayou – Houston-Galveston Area Council
- Brady Creek – Upper Colorado River Authority
- Caddo Lake – Northeast Texas Municipal Water District
- Cypress Creek – River Systems Institute at Texas State University
- Dickinson Bayou – Texas Sea Grant
- Lake Granbury – Brazos River Authority and Texas Water Resources Institute
- Hickory Creek – City of Denton
- Upper San Antonio River – San Antonio River Authority

There are several other watershed planning projects across the state which are funded and sponsored by entities and agencies other than TSSWCB or TCEQ (orange in Figure 3). These third-party WPPs may or may not adequately satisfy EPA's nine elements, but those that do satisfy the nine elements may seek funds from the TSSWCB to support implementation of the WPP:

- Armand Bayou – Texas Sea Grant and Trust for Public Land
- Barton Springs – Barton Springs/Edwards Aquifer Conservation District and City of Dripping Springs
- Benbrook Lake – Texas Water Resources Institute and Tarrant Regional Water District
- Lower and Middle Brazos River – Brazos River Authority
- Bridgeport Reservoir – Texas Water Resources Institute and Tarrant Regional Water District
- Caney Creek – Caney Creek Conservation Foundation
- Cedar Creek Reservoir – Texas Water Resources Institute and Tarrant Regional Water District
- Upper Colorado River – Colorado River Municipal Water District
- Eagle Mountain Reservoir – Texas Water Resources Institute and Tarrant Regional Water District
- Nueces River – U.S. Army Corps of Engineers
- Richland-Chambers Reservoir – Texas Water Resources Institute and Tarrant Regional Water District
- Stillhouse Hollow Lake – Lake Stillhouse Hollow Cleanwater Steering Committee, Inc.

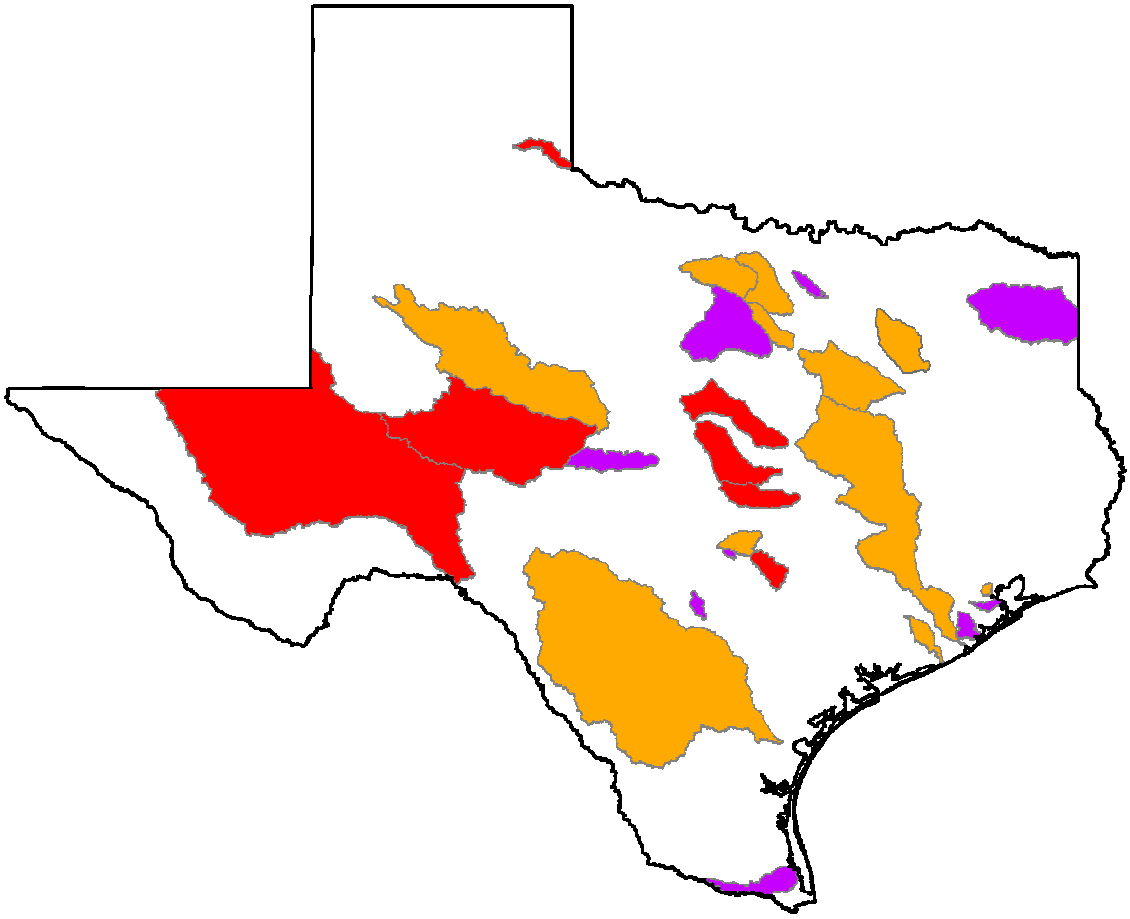


Figure 3 – Map of watersheds where TSSWCB is engaged in developing or implementing WPPs.

In order to abate agricultural and silvicultural NPS pollution, WPPs will implement components of other TSSWCB Programs, such as the Water Quality Management Plan Program or the Water Conservation and Enhancement Program. Additionally, the Clean Water Act §319(h) Nonpoint Source Grant Program can serve as a funding source to implement the agricultural and silvicultural components of WPPs. These programs are described in detail in other sections of this Report.

For more information on the TSSWCB Watershed Protection Plan Program, visit our website at http://www.tsswcb.state.tx.us/wpp.

Water Quality Management Plan Program

In 1993, the Texas Legislature passed Senate Bill 503 that directed the TSSWCB to implement Water Quality Management Plans (WQMPs) in Texas. The agency has implemented more than 6000 WQMPs since the inception of the program.

The WQMP Program is administered from five Regional Offices around the state. A poultry WQMP office will open in Nacogdoches in January 2005. The Regional Offices are:

Dublin Regional Office
Hale Center Regional Office

Harlingen Regional Office
Mount Pleasant Regional Office
Wharton Regional Office
Poultry Program Office (Nacogdoches)

A WQMP is a site-specific conservation plan developed through (and approved by) SWCDs for agricultural or silvicultural lands. The plan includes appropriate land treatment practices, production practices, management measures, technologies or combinations thereof. The purpose of WQMPs is to achieve a level of pollution prevention or abatement determined by the TSSWCB, in consultation with local soil and water conservation districts, that is consistent with state water quality standards.

The TSSWCB selected requirements for a WQMP based on the criteria outlined in the *Field Office Technical Guide (FOTG)*, a publication of the United States Department of Agriculture's Natural Resources Conservation Service (NRCS).

Nutrient management must be included if nutrients are applied. If an animal feeding operation is involved (such as an unpermitted dairy), a WQMP will be planned with practices that individually or in combination with other practices will properly manage animal wastes. Waste utilization will be considered when agricultural wastes are applied. These WQMPs also have subcomponents for irrigation waters, erosion control, and are flexible enough to cater to a wide range of operating systems.

Agricultural and forestry landowners may enter into these cooperative agreements with their local district to control nonpoint source pollution from their operations. While the decision to develop a plan is voluntary, landowners have many reasons to do so. These plans provide for landowners to use best management practices in their operations to protect their most precious agricultural resources by controlling erosion, conserving water, and protecting water quality. In addition, certified plans have the same legal status as Texas Commission on Environmental Quality (TCEQ) point source pollution permits, without having to go through that agency's regulatory process. Landowners may also receive financial incentives to help pay for implementing these plans.

It should be noted that an animal feeding operation that is required by law to operate within the confines of a water quality permit issued by the TCEQ may not participate in the TSSWCB program.

Water Quality Management Plans are especially useful for animal feeding operations. Depending on their size, animal feeding operations may be regulated by TCEQ as a point source or are unregulated and eligible for the TSSWCB's voluntary program. Generally, these feeding operations are classified according to the number of animals they have, calculated as "animal units"; however, TECQ has adopted rules that provide if you have or exceed a certain number of animals, you will be regulated. Animal feeding operations with more than the number of animals listed in TCEQ rules must apply for a permit. Most animal feeding operations in Texas are not large enough to require a permit, which makes this program critical to protecting Texas' water quality.

In developing the Water Quality Management Plan, the TSSWCB, SWCDs, and the USDA Natural Resources Conservation Service (NRCS) provide technical assistance to help the landowner meet the criteria of the plan. A plan establishes practices and installations on the farm that adhere to best management practices specific for that area. The various installations that a plan calls for depend on the operation. A farm may include a combination of cropland, dairy cows, poultry, hogs or cattle.

These plans may also include erosion control measures such as terraces or grass waterways; or they may address nutrient management to help landowners avoid over-fertilizing their land, or over-applying animal waste. Although a plan will take into consideration each farm's unique components, all WQMPs generally attempt to control erosion, conserve water, and protect water quality.

Upon TSSWCB certification of a WQMP, a landowner may apply for a financial incentive that will help pay for implementing the plan. Local districts have varying rates for sharing the cost of plan implementation; however cost-share may not exceed 75% with a maximum $10,000 grant limit per plan. Landowners receiving financial incentive have approximately are now given a specific time period to implement conservation practices, otherwise, their applications are cancelled automatically and the funds are reallocated to another plan. This approach hopefully will reduce the amount of lapsed funds.

The TSSWCB allocates money to local districts for financial incentives based on whether the area has impaired water bodies as determined by TCEQ, or if the TSSWCB had previously designated it as a priority. Most of these financial incentives were appropriated from General Revenue funds. Some plans received financial incentives from federal funds. State appropriations provided to local districts in FY08 amounted to $2,171,740.00 to carry out a WQMP cost-share program in their district.

In addition to certifying WQMPs to ensure that they help abate nonpoint source pollution, the TSSWCB monitors WQMPs to ensure they are properly implemented. Each year, the TSSWCB conducts status reviews on a minimum of 10% of the plans. Additional technical assistance may be offered to a landowner when a WQMP is found noncompliant. In the unlikely case that the landowner does not achieve compliance with the WQMP, the TSSWCB may decertify the plan.

During FY03, the WQMP Program was administered from the TSSWCB office in Temple. The staff reductions in the FY04 budget made it necessary for the program to be reorganized and the Regional Offices activities are now coordinated through the Harlingen Regional Office. Additionally, plan certification authority was shifted from the Temple headquarters to each regional office. This change is already expediting the certification process and reducing postage expenditures, while maintaining the integrity and standards of the program.

The last adjustment involved the complaint process, which was also administered out of the headquarters office during FY03. Headquarters office no longer has an individual to do complaint inspections and all complaints are investigated from the appropriate Regional Office.

Current Status

Through the end of the first quarter of FY-08, a total of 165 water quality management plans have been certified by the State Board. The period for obligating cost-share funds will run from September 1, 2007 to April 30, 2008. The total cost-share allocation for FY-08 is approximately $1,946,000.00. Three new districts received allocations for the first time in FY-08.

During the next seven months, districts will be making every effort to minimize the amount of lapsed funds for the FY-06 funding cycle which expires on August 31, 2008.

The State Board successfully processed two appeals filed by producers and pertaining to their cost-share applications.

Poultry Water Quality Management Plan Initiative

In 1994, the Texas State Soil and Water Conservation Board (TSSWCB) began assisting poultry operations with the establishment of the Northeast Texas - Senate Bill 503 Cost-share Area. Since 1994, over $300,000 of WQMP Program funding has been provided annually to six soil and water conservation districts (SWCDs) in Northeast Texas to address animal feeding operations (AFOs). Shelby SWCD began receiving SB 503 funds in FY 2005 and the Nacogdoches SWCD began receiving SB 503 funds in FY 2007.

In 1995, the TSSWCB initiated three federal Clean Water Act, §319(h) projects to demonstrate composting as a means for dead bird disposal, buffer strips, and proper land application of poultry litter. In 1996, the TSSWCB expanded its efforts by initiating a composting and marketing project. This effort to promote the installation of composters and other means of mortality management on poultry farms resulted in accelerated WQMP development.

In 1997, the Texas Legislature passed Senate Bill 1910, which required all poultry farms to have a TCEQ-approved method of dead bird disposal. The law took effect in March 1998. However, the rules were not adopted and did not take effect until fall 1999. It was during this time that requests for poultry WQMPs significantly increased due to pursuit of cost-share for mandated mortality management. This activity intensified the TSSWCB's poultry initiative.

In 1999, in response to water quality concerns and the initiation of TMDL development in the Big Cypress/Lake O' the Pines watershed, the TSSWCB began using §319 funds for cost-share in the area in addition to the Senate Bill 503 cost-share funds already directed to the watershed. The current implementation process of the TMDL has shown that the WQMP program has resulted in reduced nutrient loadings in the watershed. Due to rising concerns in nearby watersheds, the TSSWCB also included the Sam Rayburn and Toledo Bend Reservoir watersheds in its initiative in 1999. The TSSWCB expanded the poultry initiative again in 2001 to the Gonzales area.

Beginning in 2001, seven soil and water conservation district (SWCD) technicians were employed under federal Clean Water Act §319 contracts to develop WQMPs in poultry producing areas. Six of those contracts expired in 2004 and the seventh expired in 2005. An eighth §319 district technician was hired in 2003 with the Shelby SWCD and that contract expired in August 2007. Two more positions were hired by local SWCDs in FY 2007 to help with WQMP development for the Sanderson Farms expansion in the Waco area. Those contracts have also expired.

Current Issues

In October 2007, two technicians were hired by local Soil and Water Conservation Districts, with one expiring in August 2008 and the other in August 2009. Because of expiring contracts and difficulty retaining temporary contract SWCD staff, TSSWCB submitted a 2008-2009 Legislative Appropriations Request for 4 additional FTEs to replace the expiring SWCD technician positions, so as to continue technical assistance for poultry producers in these areas. The budget request was approved by the 80th Texas Legislature and took effect September 1, 2007. The four new positions are located in the four most heavily poultry populated areas of the state which are Shelby, Nacogdoches, Gonzales, and Leon Counties and they will also serve the poultry producers in surrounding counties. The 4 new positions are part of the TSSWCB Poultry Program reporting to the Nacogdoches Poultry Office.

In 2001, the 77th Legislature passed Senate Bill 1339, which requires all poultry facilities in Texas to operate in accordance with a WQMP certified by the TSSWCB. The review and certification process assures the plan includes appropriate practices, management measures, and schedules of implementation.

This law provided for a staggered-schedule of deadlines by which each producer, depending on their initial date of operation, must have requested the development of a WQMP from their soil and water conservation district. Any commercial poultry facility constructed after January 1, 2002 is required to have a WQMP prior to the receipt of any birds. All other commercial poultry facilities are required to have a WQMP no later than December 31, 2007.

Currently, the TSSWCB is aware of 1359 total dry-litter poultry farms, of which 1318 (97%) currently operate under a certified WQMP. The TSSWCB estimates that 16 farms need to request a plan before December 31, 2007. The other estimated 25 farms have already requested a plan and those plans are in various stages of development. However, there is an ongoing challenge of identifying new poultry farms continually being constructed and put into production and locating other poultry farms not yet identified. Sanderson Farms may need as many as 75 more new contract farms in the Waco area to supply a new processing plant that began operation in August 2007. TSSWCB staff has already been developing WQMPs for some of these proposed new farms.

Due to changes made by the U.S. Environmental Protection Agency (EPA) to the federal regulations for concentrated animal feeding operations (CAFOs), the Texas Commission on Environmental Quality (TCEQ) adopted a rule change in 2004 that required dry-litter poultry operations larger than 125,000 broilers or pullets, 82,000 layers or breeders, or 55,000 turkeys to operate under a water quality permit. However, due to a federal court decision by the U.S. 2nd Circuit Court of Appeals in February 2005, the EPA issued a notice that the date by which a permit and a Nutrient Management Plan must be obtained was extended to July 31, 2007 and EPA has since proposed that date be extended to February 27, 2009. Also in compliance with the court decision, the EPA released additional proposed rule changes in June 2006. Under the proposed new rule, farms that do not actually discharge wastes to waters of the U.S. are not required to apply for permit coverage, thereby eliminating the need for dry-litter operations to apply. In advance of EPA's final rule, TCEQ made a rule change in September 2006 to allow CAFO size dry-litter poultry farms an exemption to permitting if they obtain and follow a WQMP certified by TSSWCB. A supplemental guidance document is available from the TSSWCB for poultry producers that provides requirements in addition to the WQMP that are necessary to stay in compliance with the CAFO rules. Meetings will be held in six different poultry producing counties in January and February 2008 to inform poultry producers of those additional requirements.

In FY 2008, staff in the Poultry WQMP Program continues to develop, update, and review Water Quality Management Plans for poultry producers and provide assistance with all issues related to the Poultry WQMP Program. The Program Supervisor and three Natural Resource Specialists staff the Nacogdoches Poultry Office. There are also three Natural Resource Specialists located in Center, Centerville, and Gonzales. In addition, two new technicians were hired by local Soil & Water Conservation Districts (SWCD) in Nacogdoches and Shelby Counties to assist the Poultry WQMP Program in the Nacogdoches area. Approximately 627 (46%) of the estimated 1359 dry-litter poultry farms in Texas are located in an eight-county area surrounding Nacogdoches. Approximately 12 (2%) of the farms in those counties still need a WQMP developed. However, about 150 farms in the 8-county area are large enough to be defined as Concentrated Animal Feeding Operations (CAFO), which require annual inspections which could result in needed revisions to their WQMP. In addition, the other existing WQMPs are reviewed regularly

for needed updates and revisions. The office also assists other SWCDs in the state with poultry WQMP development and revision as needed.

Comprehensive Nutrient Management Plan Program

The TSSWCB Comprehensive Nutrient Management Plan (CNMP) Program was developed in response to a control measure recommended in the TMDL *I-Plan for Soluble Reactive Phosphorus in the North Bosque River Watershed*. The I-Plan recommended that dairy producers in the watershed voluntarily develop and implement a CNMP; however, the TCEQ adopted a rule that made the recommendation a requirement. The CNMP Program is confined to the North Bosque River and Leon River watersheds by TSSWCB rule.

A CNMP is a resource management plan containing a grouping of conservation practices and management activities which, when combined into a conservation system, will help ensure that both agricultural production goals and natural resource concerns dealing with nutrient and organic by-products and their adverse impacts on water quality are achieved. A CNMP incorporates practices to utilize animal manure and organic by-products as a beneficial resource. The TSSWCB selected requirements for a CNMP based on the TCEQ rules and regulations required for permitted and unpermitted animal feeding operations and criteria outlined in the Field Office Technical Guide (FOTG), a publication of the United States Department of Agriculture's Natural Resources Conservation Service (NRCS). The FOTG represents the best available technology and is already tailored to meet the needs of soil and water conservation districts all over the nation. To be certified by the TSSWCB, the local SWCD, the producer, and the local NRCS Field Office must approve a CNMP.

As of December 14, 2007, the TSSWCB has certified 75 of the 87 CNMPs that have been submitted for approval. The TSSWCB, NRCS, and the Texas Association of Dairymen have held numerous meetings with dairy producers and technical service providers since January 2006 in an effort to facilitate development and submittal of CNMPs.

Statewide Bacterial Water Quality Impairment Reduction Initiative

According to the 2004 *Texas Water Quality Inventory and 303(d) List*, one hundred ninety-seven (197) waterbodies are impaired because they do not meet surface water quality standards for bacteria established to protect contact recreation use (in freshwater or saltwater) and/or oyster water use. The magnitude of bacteria impairments in Texas is evident when compared to all other types of water quality impairments. These bacteria impairments represent over 50% of all impairments on the *303(d) List*.

As the lead agency in Texas responsible for the prevention, abatement, and management of NPS pollution from agricultural and/or silvicultural activities, the TSSWCB plays a critical role in addressing water quality impairments for bacteria. Many of these impairments have been attributed, at least in part, to grazing livestock or animal feeding operations.

In order to address these bacteria impairments, TSSWCB has continued to strengthen partnerships with industry commodity organizations including the Texas Farm Bureau, the Texas and Southwestern Cattle Raisers Association, the Independent Cattlemen's Association of Texas, the Texas Poultry Federation, the Texas Association of Dairymen and the Texas Pork Producers Association. Regular communication

includes notification of public stakeholder meetings for Total Maximum Daily Load or Watershed Protection Plan projects that will impact livestock operations.

Working with the USDA Natural Resources Conservation Service and the State Technical Committee, an Environmental Quality Incentives Program (EQIP) State Resource Concern for Water Quality in South Central Texas was established to provide livestock producers in the Peach Creek, Elm and Sandies Creeks, Atascosa River and Lower San Antonio River watersheds financial assistance in implementing best management practices (BMPs) to prevent and abate NPS pollution from their operations which may be contributing to the bacterial water quality impairment in those watersheds. This financial assistance to livestock producers supports implementation of TMDLs in these watersheds.

The magnitude of water quality impairments from excessive bacteria in Texas has resulted in a marked increase in the number of bacteria-related education, assessment, demonstration, and implementation projects initiated and directed by the TSSWCB. Most of these projects are funded through the agency's Clean Water Act §319(h) NPS Grant Program, but the agency is utilizing other funding mechanisms such as the USDA NRCS Grassland Reserve Program. Nearly two dozen projects are currently focused on the abatement of bacterial NPS pollution.

For more information on the TSSWCB Statewide Bacterial Water Quality Impairment Reduction Initiative, visit our website at http://www.tsswcb.state.tx.us/managementprogram/initiatives/bacteria.

Coastal Management Program

Background

The Texas Coastal Management Program (CMP) was created to coordinate state, local, and federal programs for the management of Texas coastal resources. The program brings in federal Coastal Zone Management Act (CZMA) funds to Texas state and local entities to implement projects and program activities for a wide variety of purposes. The Coastal Coordination Council (CCC) administers the CMP and is chaired by the Commissioner of the GLO. It comprises the chair or appointed representatives from the TPWD, the TCEQ, the TWDB, TxDOT, a member of the Texas State Soil and Water Conservation Board, a member of the RRC, the director of the Texas A&M University Sea Grant Program and four gubernatorial appointees. These members are selected to provide fair representation for all aspects concerning coastal issues.

The Council is charged with adopting uniform goals and policies to guide decision-making by all entities regulating or managing natural resource use within the Texas coastal area. The Council reviews significant actions taken or authorized by state agencies and subdivisions that may adversely affect coastal natural resources to determine their consistency with the CMP goals and policies. In addition, the Council oversees the CMP Grants Program and the Small Business and Individual Permitting Assistance Program.

The Coastal Zone Act Reauthorization Amendments (CZARA), Section 6217, requires each state with an approved coastal zone management program to develop a federally approvable program to control coastal nonpoint source pollution. The Texas CCC appointed a Coastal Nonpoint Source Pollution Control Program workgroup to develop this document. The National Oceanic and Atmospheric Administration and the U.S. Environmental Protection Agency jointly administer the program. In Texas, two agencies

hold primary responsibility for the program's development and implementation: the Texas Commission on Environmental Quality and the TSSWCB.

Section 6217 calls for implementation of management measures (§6217(g) measures or (g) measures) that will control significant nonpoint sources of pollution to coastal waters. Six source categories are addressed by these measures: agriculture, forestry, urban and developing areas, marinas, wetland/riparian areas, and hydro modification. States can use voluntary approaches combined with existing state authorities to achieve implementation of management measures. However, if the voluntary mechanisms are not effective, states must have backup enforcement authorities in place to ensure that management measures are implemented.

Texas submitted the Texas Coastal Nonpoint Source Pollution Control Program to EPA and NOAA in December 1998. In October 2000, Texas submitted the Texas Coastal NPS Control Program 15-year Program Strategy and FY 2001-2005 Implementation Plan.

Final findings were issued by NOAA/EPA in July 2003, which contained conditional approval of the program. The agricultural and silvicultural portions of the program were approved without conditions.

CURRENT STATUS

The TSSWCB is responsible for implementing the agricultural and silvicultural management measures of the program. The main mechanism we have for this is the State's cost-share program for implementing Water Quality Management Plans on farms and ranches through local soil and water conservation districts (SWCD). For over eight years, more than $300,000 of state funds has been spent annually in the coastal zone districts to provide cost-share to implement 1858 Water Quality Management Plans.

Prior to 2004, SWCDs in the Coastal Management Zone received grants from NOAA's §6217 Implementation Funds to install agricultural management measures through the TSSWCB Water Quality Management Plan program. In March 2004, NOAA issued final guidance for the program funds. The guidance no longer allows these funds to be used to implement agricultural best management practices on private lands. As a result, federal funding is no longer available for SWCDs to implement agricultural management measures beginning in FY06. In addition, the FY06 NOAA budget cut the Coastal Nonpoint Source Pollution Control Program funding by 70%. The FY06 amount Texas received was only $112,000. No funding was available in FY07 for the coastal nonpoint source pollution control program. In the meantime, our Water Quality Management Plan program in the coastal management zone continues.

The TSSWCB works with TCEQ and other partners to implement watershed protection plans and TMDS in the coastal zone, as well as other areas of the State. The Arroyo Colorado Watershed Protection Plan Phase I, developed was finalized in January, 2007. One of the goals of the plan is to achieve the voluntary adoption of agricultural best management practices (BMPs) on 33% of the irrigated cropland (approximately 100,000 acres) by 2010 and 50% (approximately 150,000 acres) by 2015.
Implementation of the silvicultural management measures in the coastal zone is through a CWA §319 grant from the TSSWCB to the Texas Forest Service.

Information Technology

Celebrating Five Years of Open Source Network Services

The TSSWCB IT department recently celebrated its fifth year of building, deploying and managing a statewide network of services that is based entirely on open source software solutions. Five years ago, the agency migrated its last network service off a proprietary software platform and onto an open source system, initiating what has since become a remarkable success story.

Open source software has become popular among many businesses and governments seeking to make use of applications that are often free of charge and yet have excellent track records of stability and security. The TSSWCB began its own migration following a period of problematic internal service disruptions and increases in support expenses related to its previous proprietary platform.

The advantages following the TSSWCB migration to open source systems have been numerous, though the savings in license procurement have certainly been one dramatic example. The software systems used at the TSSWCB are cost-free relative to procurement and licensing. The result of this has been that during the last five years, while the scope of IT operations increased dramatically, IT spending for network software has simultaneously dropped dramatically. During this period, agency spending on network software procurement and licensing has totaled $0.00.

Beyond procurement savings, the advantages to the agency's user base of employees and soil and water conservation districts has included substantial increases in service availability, increased security of networked data, and a large increase in the number and types of services offered.

Using the increased savings in network software and licensing, the agency has been able to invest in more reliable and capable hardware for both its network infrastructure and its desktop PC environment. This has also led to yet another benefit by lowering the number of desktop hardware support issues and allowing employees to more productively carry out their roles of service to the state.

The TSSWCB is continuing to expand its network services, with open source solutions remaining at the forefront of its evaluation shortlist.

Network Migrations Bring Cost Savings and Increased Bandwidth

Also in the later half of 2007, the agency completed its transition to digital subscriber line (DSL) service at field offices previously served by fractional T1 frame relay network connections. This project captured the twin benefits of significant cost savings and massive increases in available bandwidth.

The project was completed with the migration of offices in Dublin, Hale Center and Mount Pleasant where monthly costs for the new DSL lines are expected to net 80 percent savings when compared to the costs of the previous frame relay connections. Additionally, all offices in the project are profiting from an increase in upload bandwidth of between 50 to 100 percent and an increase in available download bandwidth of between 500 to 1,600 percent. Until recently, frame relay was the only technology available for delivering broadband service to the sites involved in this project.

The sole expense for this project was related to the purchase of the telecommunications service. The agency uses commodity PCs powered by open source software to operate as routers and provide office network services, resulting in no external costs for software, service or support.

Each of these telecommunication services were acquired through a vendor approved by the Texas Department of Information Resources. Offices in Harlingen and Wharton were previously migrated as part of this project.

Wireless Networking Upgrades

Continuing the work begun during the first half of the year, the agency upgraded additional wireless access points and clients to the 802.11g wireless networking standard at offices where wireless networks are deployed.

The newer protocol provides increases in security and bandwidth for wireless local area networking. Security-sensitive areas, however, remain under the protection of additional protocols beyond those afforded by even the 802.11g specifications.

The bandwidth increases afforded by this upgrade have provided significant improvements for staff working with large data files over local networks. In many cases large data sets can be transferred between devices at a rate of two to four times that available through the previous system. The most recent upgrades occurred in the Hale Center, Harlingen, Wharton, Mount Pleasant and Dublin offices.

Wireless networks have proven themselves as a useful tool in enhancing the way agency employees are able to deploy information technology resources within agency offices. These networks allow for increased flexibility in how employees interact with representatives from other organizations and with citizens.

Increasing Data Security With Enhanced PC Backups

The previous six months brought data security enhancements to most TSSWCB offices as the IT department began rolling out improved systems for desktop PC backups.

Previous methodologies required substantial interaction from employees to ensure successful backups. The new systems and methodologies being deployed automate the backup process entirely for desktop users and thereby ensure greater successes in backing up targeted systems.

PC Hardware Upgrades

The second half of 2007 also saw a continuation of the work to replace the oldest and most problematic agency desktop PCs with more capable and reliable units. This work was part of a continuous process that aims to lessen the risk of unacceptable levels of downtime that could occur following PC hardware failures.

Each of the machines replaced was at or, in most cases, significantly beyond the PC life cycle recommendations from the Texas Department of Information Resources (DIR).

All purchases were made in accordance with DIR guidelines through a DIR-approved vendor. Most purchases were made using DIR's Buyer's Alert Program, which resulted in notable cost-savings during the purchase phase of this work.

Public Information /Education Report

General Overview

The purpose of the public information/education program is to provide leadership and coordination of information/education programs relating to the agency and district programs, services, operations and resources. The TSSWCB prepares and disseminates public information relative to the agency and district functions, programs, events and accomplishments for the public and to farmers and ranchers. TSSWCB staff coordinates seminars, conferences, workshops, displays at trade shows and training for district directors and district bookkeepers, conservation professionals, youth groups and other entities. Staff provides guidance to districts with their own individual information/education programs as well as regional and state information/education programs initiated by districts. Staff prepares and disseminates press releases, news stories and printed promotional products. The TSSWCB monitors the use of the publications and use of information. Staff represents the agency as needed with various information/education groups and entities. The TSSWCB has a cooperative agreement with the Association of Texas Soil and Water Conservation Districts to provide assistance and help coordinate district involvement and participation with Association's Information/Education Committee and its programs.

2007 Summer Teacher Workshops

Several teacher workshops are held each summer for teachers interested in conservation and natural resource issues. The workshops are held in various parts of the state in cooperation with the TSSWCB. The Texas Environmental Education Advisory Committee to the Texas Education Agency approves the content of these workshops, sponsored by the TSSWCB. As an approved Environmental Education Professional Development Provider teachers are able to get credit hours toward their required continuing education units (CEUs), while experiencing nature and the outdoors.

Pedernales SWCD hosted a Teachers Workshop in Johnson City, Texas at the Franklin Family Ranch on June 12-14, 2007. Topics included grass management, soils, water cycle, plants in the Texas hill country, wildlife biology, and prescribed burning.

2008 Texas Conservation Awards Program

Each year, the Texas State Soil and Water Conservation Board and the Association of Texas Soil and Water Conservation Districts co-sponsor the Texas Conservation Awards Program to recognize and honor those who dedicate themselves and their talents to the conservation and wise use of renewable natural resources. The 2008 Awards Program that is currently in progress marks the 30th year of this jointly sponsored program.

Local districts select their outstanding individuals as winners and submit them by mid-February each year for regional judging. Those selected as regional winners are honored each May at regional Awards

Banquets. From these regional winners, a state winner is selected for the Outstanding Conservation Districts, Outstanding Conservation Teacher, Poster Contest, and the Essay Contest. These individuals are invited to the Annual State Meeting for recognition.

The conservation awards program provides competition and incentives to expand and improve conservation efforts, resource development, and increase the wise utilization of renewable natural resources. As a result, soil and water conservation districts, and both rural and urban citizens of Texas are benefited.

Soil and water conservation districts may enter their local recognition honorees in any of 10 categories (East Texas has an additional category of Forestry Conservationist), depending on appropriateness to the category description. For the youth of the district, there is also a poster and essay contest. The categories and a brief description of each are:

Outstanding Conservation District

Awarded to the winning soil and water conservation district in each area for the most outstanding program during the past fiscal year.

Resident Conservation Rancher

Awarded to the outstanding resident conservation rancher in each area. They must be a resident of the district, perform ranching activities within the district and be a cooperator with the district from which the entry was submitted. The rancher may have other business or professional interests.

Resident Conservation Farmer

Awarded to the outstanding resident conservation farmer in each area. They must be a resident of the district, perform farming activities within the district and be a cooperator with the district from which the entry was submitted. The farmer may have other business or professional interests.

Absentee Conservation Farmer/Rancher

Awarded to the outstanding absentee conservation farmer or rancher in each area. They must reside outside the district, but operate farming or ranching activities within the district and be a cooperator with the district from which the entry was submitted. The person may have other business or professional interests.

Water Quality Management Plan

Awarded to the outstanding Water Quality Management Plan recipient in each area. They must be a district cooperator who has a district approved Water Quality Management Plan and has incorporated water quality into their farming or ranching activities and soil and water conservation work.

Essay Contest –Two Categories (Those 13 and under and those 14 to 18 years of age)

Essays (topic: "Celebrate Conservation") are to be submitted to local soil and water conservation districts for local judging. Each local district will judge the entries and submit three essays to the TSSWCB for competition on the area level. Plaques will be awarded to 1st, 2nd and 3rd place winners on the area level and state winners will be selected from the area winners. This contest is open to students, in two categories, one for those ages 13 and under, and the other category for those ages 14 to 18 years of age and does not jeopardize Texas University Interscholastic League eligibility.

Poster Contest

Posters should address one of the following subjects: "Food for the Future" or "The Living Soil". Posters shall be submitted to local soil and water conservation districts for local judging. Each local district will judge the entries and submit three posters to the TSSWCB for competition on the area level. Plaques will be awarded to the 1st, 2nd and 3rd place winners on the area level and state winners will be selected from the area winners. This contest is open to students, 12 years and under, and does not jeopardize Texas University Interscholastic League eligibility.

Business/Professional Individual

Awarded to the outstanding man or woman in the business community who has rendered the most unselfish conservation service in each area. Representatives of the news media (radio, television, newspaper, magazines, etc) who contribute to or provide support for conservation shall also be considered eligible for this award. (This award is not for individual conservation practices or individuals who, because of employment, assist with or augment the work of the soil and water conservation district.)

Conservation Teacher

Awarded to the outstanding teacher of conservation in schools in each area. Teachers of all grade levels are eligible for this award.

Wildlife Conservationist

Awarded to the outstanding wildlife conservationist in each area. They must be a district cooperator who has incorporated wildlife conservation into their farming and ranching activities.

Conservation Homemaker

Awarded to the outstanding conservation homemaker in each area. The homemaker and or family must own or operate a farm or ranch, be a district cooperator and have knowledge of the conservation programs being implemented.

Conservation District Employee

Awarded to the outstanding soil and water conservation district employee who exhibits a degree of knowledge, skill, ability, and leadership that clearly results in superior job performance far above the basic requirements of the position.

Forestry Conservationist (Area IV only)

Awarded to the outstanding forestry conservationist for the most outstanding farm forestry conservation program in the commercial forest areas of Texas. They must be a district cooperator or an individual who has implemented conservation practices on their land and has done missionary work for conservation and the district program.

Soil & Water Stewardship Public Speaking Contest

The Soil & Water Stewardship Public Speaking Contest is open to high school FFA students interested in conservation. The contest is aimed at broadening students' interest and knowledge of conservation and how individuals must depend on and take care of the world around them for survival. The contest is coordinated through the Texas FFA, with contests at the local, area and state level. Local winners compete in the 10 state FFA areas and those winners compete for the state title. The theme of the 2007 contest is "Conservation's Power."

To prepare for the contest, students were to consult with their Agriculture Science teacher and work with their local soil and water conservation district. Students are encouraged to visit with their local SWCD to find out more about conservation practices in their area.

This project is a partnership between the Texas FFA, the Vocational Agriculture Teacher's Association of Texas, The Texas State Soil and Water Conservation Board, and the Association of Texas Soil and Water Conservation Districts. The State Winner of the Soil and Water Stewardship Public Speaking Contest is invited to attend the Annual State Meeting each year and asked to deliver their winning address.

Wildlife Alliance for Youth

The Wildlife Alliance for Youth (WAY) contests offer opportunities at the local district level for 4-H and FFA students to demonstrate their knowledge of the outdoors on wildlife habitat and management, wildlife laws, sportsmanship and other factual information on wildlife. The program offers scholarships to contest winners. It is a powerful tool for students to become involved in conservation and obtain an appreciation for wildlife.

Agriculture Science students, who compete in the WAY Contest, first acquire the foundational knowledge and skills for this event through the Agscience 381 - Wildlife and Recreation Curriculum. The WAY contests address the following nine subject areas in Wildlife and Recreation Management: Wildlife Plant Identification; Wildlife Plant Preferences; Wildlife Biological Facts; Wildlife Habitat; Habitat Management; Game Laws; Hunter and Boater Safety; Compass and Pacing; and Identification Techniques. FFA and 4-H youth should have an understanding of these subject areas before they compete.

The WAY contests are held in the five Texas State Soil and Water Conservation Board areas. Area IV (East Texas) holds their contest in the fall. Area V (North Central), Area I (Panhandle), Area II (West Texas) and Area III (South Texas) all hold their contests in the spring. Each team is certified to the area level by their local SWCD. The WAY State Contest is held each year in one of the geographical areas of the state. Approximately 2,400 youth participate in the statewide competition.

The TSSWCB is the lead agency in sponsoring and organizing the contests. The Association of Texas Soil and Water Conservation Districts, USDA- Natural Resources Conservation Service, Texas Parks and Wildlife Commission, Cooperative Extension service, and the Texas Education Agency, along with local soil and water conservation districts (SWCD), all partner in the success of the youth organization.

State Woodland Clinic and Contest

The Texas State Woodland Clinic and Contest is held annually in the month of April. It is a joint effort between local soil and water conservation districts, Stephen F. Austin University School of Forestry and the NRCS-USDA.

The contest is an opportunity for 4-H and FFA youth to demonstrate their expertise in different aspects of forestry management and skills in identification of needed practices and management techniques. Competition is between teams composed of four members representing either a 4-H Club or a FFA Chapter. Prior to the state contest several local districts conduct contests for 4-H Clubs and FFA Chapters within their district and the surrounding area.

The contest began in the late 1950s and was initiated by local SWCDs and timber industry personnel to develop forestry and woodland curriculum in schools in the commercial timber area of the state (East Texas Piney Woods). The clinic and contest have experienced widespread popularity and now has participation from outside of the commercial timber area on a regular basis. The state participation level for teams averages around 55 teams per year, with the vast majority of teams being composed of FFA Chapters. Winners at the state level are eligible to participate in the four states regional woodland contest held each May in one of four states. Texas, Louisiana, Arkansas and Oklahoma host the regional contest on a rotational basis.

Regional Woodland Contest

The four states regional woodland contest is sponsored by soil and water conservation districts in each of the four states with program and technical support provided by USDA-NRCS and Resource Conservation and Development (RC&D), state organizations and industry personnel. The soil and water conservation districts in Texas hosted the first four states or southern regional woodland contest in 1984.

Each state is allowed to send a maximum of six teams to the regional contest. Each state has a competition that determines the six teams from that state that may enter in the regional contest. Those teams may be composed of individuals representing either a 4-H Club or an FFA Chapter.

Conservation Education Video Library

The Association of Texas Soil and Water Conservation Districts has established and updates a conservation related video library that is maintained by TSSWCB staff on their behalf for the benefit of local districts and educators. Currently there are 194 conservation-related videos in the library available to districts and teachers. No rental fees are assessed to those wishing to borrow the videos from the library. However, the borrower will be responsible for return postage and insurance for the videos. Borrowing privileges are for a length of two weeks and must be returned upon date specified by the librarian. Videos can be ordered through your local soil and water conservation district or by contacting the TSSWCB.

From July to December, there have been 26 videos of various titles loaned out to districts and teachers across the state.

Nonpoint Source (NPS) Pollution Watershed Flow Model

The NPS model is a hands-on representation of a landscape that allows students to understand how water sources can become polluted from nonpoint sources. The plastic landscape structure has industrial, undeveloped, agricultural, and residential and roadway features complete with individual houses, trees, cars, tractors and cows. When "rain" falls on the model, the runoff flows into a city lake. Using various products to add color to the water, the model demonstrates how potential pollutants are picked up by run-off.

The model is a layout of a watershed that includes all the factors that may contribute to polluting our water. (Urban features such as: factories, parking lots, construction sites, lawn chemicals and golf courses and Rural features such as: forested land, dairies, feedlots, cropland and pastureland). To demonstrate how each type of potential pollutant can enter a water body Kool-Aid and cocoa are used to color "runoff". Grape Kool-Aid is used to represent pollution from factories and oil from parking lots and roads. Orange Kool-aid represents pollution from lawn chemicals, golf courses, and cropland and pastureland chemicals. Cocoa is used to represent pollution from construction sites, forested land, dairies and feedlots. The Kool-aid and Cocoa are sprinkled on the model in the areas that represent each type of pollutant. Once all the pollutants are sprinkled on the model a spray bottle with water is use to represent rainfall. As the pollutants get wet and start to runoff the students can see how the water carries them to the streams and into the lake where we get our drinking water. Once all the pollutants have run into the lake the students can see how these factors have the potential to make surface waters unattractive and unsafe. This demonstration leads to a discussion about how to protect the water quality and prevent our water from looking like the model.

WATER CONSERVATION AND ENHANCEMENT PROGRAM STATUS REPORT

BACKGROUND:

The 80th Legislature continued funding for the Water Enhancement Program by providing $1,848,927.00 in General Revenue Funds in FY08. These funds were directed to be used for continuation of brush control projects designated by the Soil and Water Conservation Board.

- Staff has been providing information on water yield to Dr. Rainwater and Dr. Fish for primarily the Twin Buttes, Pedernales, and Canadian River Watersheds.

- Provided the following SWCD with Brush Program Updates or Brush Program Assistance

  Area 1 Districts
  Dawson County SWCD
  Upper Colorado SWCD

  Area 2 Districts
  North Concho River SWCD Nolan County SWCD
  Middle Concho SWCD Eldorado-Divide SWCD

Tom Green County SWCD
Mitchell County SWCD
Runnels SWCD
Middle Clear Fork SWCD
Trans Pecos SWCD
Howard County SWCD
Pedernales SWCD
Gillispie County SWCD
Pecos County SWCD
Midland SWCD
Sandhills SWCD

Area 3 Districts
McMullen County SWCD
Caldwell/ Travis SWCD
Waters Davis SWCD

Area 5 Districts
Archer County SWCD
Lower Clear Fork/Brazos SWCD

- Evaluate pending application sub basin criteria from all projects

- Legislative update for Senator Duncan, Rep. Drew Darby, and Rep. Nathan Macias, and Senator Watson

- Assist TCEQ with Brush rider concerning water yield in State Brush Projects

- Met with CRMWA to discuss update on Canadian River Project and attend public meeting concerning the Environmental Impact study being conducted

The TSSWCB staff and other professionals have been discussing current water enhancement project throughout the State identifying the highest yielding areas of each project. The TSSWCB allocated money at the November 2007 meeting to the Twin Buttes and Pedernales Projects and began implementing Dr. Fish and Dr. Rainwater's selection and criteria report submitted to the TSSWCD at the November 2007 meeting. The TSSWCB staff and other professionals are currently studying the remaining projects. Money for other projects will be allocated at a later date by the TSSWCB contingent on receiving acceptable water yield data and project information based on Dr. Fish and Dr. Rainwater's report.

SUMMARY OF BUDGET BY STRATEGY

80TH Regular Session, Fiscal Year 2008 Operating Budget

Agency code: **592** Agency name: Soil and Water Conservation Board

Goal/*Objectives*/**STRATEGY**	**EXP 2006**	**EXP 2007**	**BUD 2008**
1 Soil and Water Conservation Assistance			
1 *Provide Prog. Expertise, Finan Asst. & Tech Guide to All SWC Districts*			
1 PROGRAM MANAGEMENT & ASSISTANT	$3,650,961	$4,042,717	$3,938,695
TOTAL, GOAL 1	**$3,650,961**	**$4,042,717**	**$3,938,695**
2 Administer a Program for Abatement of Agricl Nonpoint Source Pollution			
1 *Reduce Agricultural/Silvicultural NPS Pollution w/ Prevention Program*			
1 STATEWIDE MANAGEMENT PLAN	$4,979,361	$4,869,571	$5,251,094
2 POLLUTION ABATEMENT PLAN	$4,032,722	$4,161,758	$4,346,251
TOTAL, GOAL 2	**$9,012,083**	**$9,031,329**	**$9,597,345**
3 Protect and Enhance Water Supplies			
1 *Conserve and Enhance Water Supplies for the State of Texas*			
1 WATER CONSERVATION AND ENHANCEMENT	$1,868,762	$1,843,208	$2,537,427
TOTAL, GOAL 3	**$1,868,762**	**$1,843,208**	**$2,537,427**
4 Indirect Administration			
1 *Indirect Administration*			
1 INDIRECT ADMINISTRATION	$433,826	$478,398	$546,323
TOTAL, GOAL 4	**$433,826**	**$478,398**	**$546,323**

SUMMARY OF BUDGET BY STRATEGY

80th Regular Session, Fiscal Year 2008 Operating Budget

Agency code: 592 Agency name: Soil and Water Conservation Board

Goal/*Objectives*/**STRATEGY**	**EXP 2006**	**EXP 2007**	**BUD 2008**
General Revenue Funds:			
1 GENERAL REVENUE FUND	$9,507,022	$9,462,747	$12,596,809
	$9,507,022	**$9,462,747**	**$12,596,809**
Federal Funds:			
555 FEDERAL FUNDS	$5,304,228	$5,932,905	$4,022,981
	$5,304,228	**$5,932,905**	**$4,022,981**
Other Funds:			
777 INTERAGENCY CONTRACTS	$154,382	$0	$0
	$154,382	**$0**	**$0**
TOTAL, METHOD OF FINANCING	**$14,965,632**	**$15,395,652**	**$16,619,790**
FULL TIME EQUIVALENT POSITIONS	**60.1**	**60.4**	**67.0**

Active CWA Section 319(h) Projects

	Project Name	Project Description	Lead	Period	Federal
01-01	Administration of the FY2001 CWA Section 319(h) Agricultural/Silvicultural NPS Management Program	Administer/manage the FY01 CWA 319(h) cooperative agreement between EPA and TSSWCB. Coordinate with project cooperators on administrative related issues and manage the financial aspects of each contract.	TSSWCB	4 /1 /2008	$243,674
01-02	Statewide NPS Pollution Management Project	Provide technical assistance for FY01 CWA 319(h) agricultural and silvicultural projects and ensure that projects meet all technical requirements and are successfully completed in a timely fashion.	TSSWCB	4 /1 /2008	$308,390
01-15	WQMP Initiative for the Pork Industry	The objective of this project is to determine the steps needed to assist unpermitted nonpoint source pork producers in meeting the requirements of the Texas Water Code and Texas Administrative Code §321.47 through the successful development of water quality management plans (WQMPs) certified in accordance with Texas Agriculture Code §201.026. The project will consist of the development, implementation, and demonstration of WQMPs containing cost-effective alternative manure and wastewater storage facilities on two pork operations chosen by the Texas Pork Producers Association (TPPA).	Texas Pork Producers Association	2 /3 /2006 3 /1 /2007	$21,000
01-16	Environmental Regulatory Oversight	The objective of this project is to provide the Texas State Soil & Water Conservation Board guidance and assistance related to state/federal environmental requirements for unpermitted animal feeding operations.	TAMU & Eco-Environmental Services	2 /28/2006 2 /29/2008	$161,000
01-17	Extending TMDL Efforts in the NBR Watershed	This project will provide storm and routine monitoring of tributaries that contribute nonpoint source loadings to an impaired water body in order to assess agricultural NPS reductions.	Texas Institute for Applied Environmental Research	3 /31/2006 3 /30/2008	$441,755

	Project Name	Project Description	Lead	Period	Federal
01-18	Seymour Supplemental	The main goal of this project is to demonstrate management practices that mitigate nitrate movement in the soil within the Seymour Aquifer region. This project will generate and extend new knowledge to enhance Best Management Practices (BMPs) for nutrient and irrigation management within the Seymour Aquifer through establishment of a subsurface drip irrigation system at the Chillicothe Research Station. This project will also provide additional resources for quantifying and verifying the effectiveness of BMP implementation in reducing nitrate levels within the aquifer.	TWRI	3 /15/2006 3 /31/2008	$83,254
01-20	TSSWCB NPS Team Support	This project will provide technical assistance for FY01 - FY05 (and beyond) CWA 319(h) agricultural and silvicultural projects to ensure that the projects meet all requirements.	TSSWCB	3 /1 /2006 1 /1 /2008	$42,400
01-21	Maintaining Sediment Prevention through Repair of Floodwater-Retarding Structures in McCulloch County	This project will involve cooperative efforts between the TSSWCB, McCulloch SWCD #249 and the USDA-NRCS in an effort to provide technical and financial assistance for restoration of local floodwater retarding structures. Baylor University will conduct sedimentation surveys and sediment core analysis.	McCulloch SWCD #249	5 /1 /2006 1 /31/2008	$338,398
01-22	Improvement and Standardization of Laboratory Quality Assurance and Quality Control for Mehlich III Soil Test Methodology: Phase 1	The objective of this project is to develop appropriate and standardized quality assurance/quality control and standard operating procedures (SOP) for use of the Mehlich III soil test extractant.	TCE- Soil and Crop Sciences	9 /1 /2006 3 /1 /2008	$228,097
02-01	Administration of the FY2002 CWA Section 319(h) Agricultural/Silvicultural NPS Management Program	Administer/manage the FY02 CWA 319(h) cooperative agreement between EPA and TSSWCB. Coordinate with project cooperators on administrative related issues and manage the financial aspects of each contract.	TSSWCB	4 /1 /2009	$304,132
02-02	Statewide NPS Pollution Management Project	Provide technical assistance for FY02 CWA 319(h) agricultural and silvicultural projects and ensure that projects meet all technical requirements and are successfully completed in a timely fashion.	TSSWCB	4 /1 /2009	$311,290

	Project Name	Project Description	Lead	Period	Federal
02-05	Little River Atrazine Remediation	This project will provide corn & sorghum producers in the Little River watershed with an opportunity to participate in water quality educational activities, technical assistance, and financial assistance for implementation of BMPs, to reduce atrazine runoff.	Central Texas SWCD #509	4 /9 /2002 4 /30/2008	$483,482
02-11	Field Validation of the Texas Phosphorus Index	The objectives of this project are to determine the effects of selected soil properties on measured and predicted P runoff, compare and correlate different soil test & soil solution extractable P levels to runoff P, and validate and/or modify the TX P Index as a predictive tool for classification of field sites relative to P loss potential.	TCE- Soil and Crop Science	9 /27/2002 3 /31/2008	$203,178
02-12	Three - Technicians	Three technicians will work under the direction of SWCDs, with assistance when needed from the TSSWCB regional offices, and NRCS to assist landowners in the development, implementation, &/or maintenance of WQMPs/BMPs. Technicians will be placed in three SWCDs and will work in adjacent SWCDs through cooperative agreements between the participating SWCDs.	Southmost SWCD	9 /11/2002 8 /31/2007	$700,803
02-13	Oso Creek/Oso Bay Watershed Implementation Assistance	This project will consist of TSSWCB working cooperatively with the Nueces SWCD #357 in the Oso Creek/Oso Bay Watershed to provide technical and financial assistance to landowners in the implementation of WQMPs.	Nueces SWCD & TAES AREC (CC)	12/1 /2002 3 /31/2008	$596,067
02-15	Water Quality Information/Education	Through the development of newspaper articles, informational brochures/flyers, display exhibits and promotional materials that include both water quality and water conservation messages a strategy can be developed to heighten the public awareness of the importance of protecting and conserving water resources.	TSSWCB	3 /31/2002 3 /31/2008	$135,000

	Project Name	Project Description	Lead	Period	Federal
02-21	SWAT Model Simulation of the Arroyo Colorado Watershed	This project will simulate the current nutrient, BOD, and sediment loading to the Arroyo Colorado using the SWAT model. Model output will provide the needed input for the EFDC model. To achieve this, the following objectives will be accomplished:(1) Collect meteorological, landuse, crops, flow, soils, topographic, irrigation and nutrient management, wastewater discharges, water quality, and other necessary data needed to model the Arroyo Colorado with SWAT(2) Calibrate SWAT watershed model to measured flow, sediment, BOD and nutrients(3) Simulate/validate flow, nutrient, BOD and sediment loads for current conditions(4) Simulate load reduction scenarios for a suite of management measures specified by the TSSWCB	Texas Water Resources Institute	6 /1 /2007 3 /1 /2009	$94,997
03-01	Administration of the FY2003 CWA Section 319(h) Agricultural/Silvicultural NPS Management Program	Administer/manage the FY03 CWA 319(h) cooperative agreement between EPA and TSSWCB. Coordinate with project cooperators on administrative related issues and manage the financial aspects of each contract.	TSSWCB	5 /3 /2010	$154,231
03-02	Statewide NPS Pollution Management Project	Provide technical assistance for FY03 CWA 319(h) agricultural and silvicultural projects and ensure that projects meet all technical requirements and are successfully completed in a timely fashion.	TSSWCB	5 /3 /2010	$245,109
03-06	E.V. Spence Saltcedar	This project will provide technical and financial assistance toward implementation of targeted brush control activities for the purpose of reducing NPS loadings from saltcedar in the E.V. Spence Reservoir.	TSSWCB	11/1 /2003 3 /31/2008	$2,208,446
03-07	Bacteria Monitoring for Buck Creek	The objective of the project is to monitor water quality as related to bacterial NPS pollution in Buck Creek by in-stream water sampling to facilitate TMDL definitions and guidance if needed.	Texas Water Resources Institute	11/18/2003 9 /30/2007	$247,198
03-08	Nitrate Impacts in Groundwater	The objectives of this project are to demonstrate the effectiveness of winter cover crops in removing nitrate-nitrogen from the soil profile to minimize nitrate leaching, demonstrate the ability of zeolite to reduce atrazine and arsenic concentrations in water, and assess the extent of atrazine and arsenic detections in private groundwater in the Seymour and High Plains of Texas.	Texas Cooperative Extension	11/24/2003 4 /30/2008	$98,341

	Project Name	Project Description	Lead	Period	Federal
03-09	Central Texas WQMP Implementation Supplemental	The project will provide additional funding for the ongoing implementation efforts in the Little River watershed. TSSWCB projects (02-5 & 02-6) entitled Central Texas Atrazine Remediation Project.	Central Texas SWCD	10/31/2003 4 /30/2008	$424,080
03-10	Technologies for Animal Waste Pollution	The objective of this project is to evaluate up to six technologies for decreasing nonpoint source pollution and improving surface water quality, through on-site demonstrations of reduction of total and soluble P in dairy effluent applied to waste application fields.	Texas Water Resources Institute	11/24/2003 3 /31/2008	$227,793
03-11	Leaf Beetle Demonstration	The project will demonstrate the usefulness of biologically treating saltcedar in the Colorado River Basin in an effort to reduce NPS pollution loadings resulting from saltcedar on agricultural lands.	USDA- ARS	1 /15/2004 3 /31/2008	$99,246
03-12	Navarro WQMP Implementation Supplemental	This project will provide corn and sorghum producers in the Richland Chambers Reservoir watershed with an opportunity to participate in water quality educational activities, technical assistance, and financial assistance to implement BMPs to reduce the runoff of atrazine.	Navarro SWCD #514	12/10/2003 8 /31/2008	$430,279
03-15	Reducing Atrazine Losses in Central TX	The primary objective of this project is to demonstrate in field plots alternative means of protecting water quality from atrazine contamination and assess their impacts by simulating field conditions over a long period of time.	Texas Cooperative Extension	11/24/2003 8 /31/2007	$101,271
03-19	SWQM for Plum Creek WPP	Generate data of known and acceptable quality for surface water quality monitoring (routine ambient, targeted watershed, stormflow, 24-hour DO, effluent and springflow) of main stem and tributary stations on Segment 1810 (Plum Creek) for field, conventional, flow, bacteria and effluent parameters to support development of a WPP for the Plum Creek watershed in Caldwell, Hays and Travis Counties.	Guadalupe-Blanco River Authority	6 /1 /2007 10/31/2008	$109,000
04-01	Administration of the FY2004 CWA Section 319(h) Agricultural/Silvicultural NPS Management Program	Administer/manage the FY04 CWA 319(h) cooperative agreement between EPA and TSSWCB. Coordinate with project cooperators on administrative related issues and manage the financial aspects of each contract.	TSSWCB	6 /1 /2011	$154,220

	Project Name	Project Description	Lead	Period	Federal
04-02	Statewide NPS Pollution Management Project	Provide technical assistance for FY04 CWA 319(h) agricultural and silvicultural projects and ensure that projects meet all technical requirements and are successfully completed in a timely fashion.	TSSWCB	6 /1 /2011	$375,231
04-03	Athletic Field Topdressing as a Commercial Market for Compost from Dairy Manure (Field of Dreams Project)	The purpose of this project is to gain commercial acceptance of blend of compost and sand for topdressing of athletic fields through demonstration on athletic fields.	Leon-Bosque RC&D	8 /4 /2004 1 /1 /2008	$300,000
04-04	Field Validation of the Texas P Index in the Poultry Areas of Texas	The objectives of this project are to determine the effects of selected soil properties in Sam Rayburn Reservoir and Lake O' the Pines watersheds and other poultry producing areas of the state in East & South Central Texas to measure & predict P runoff and compare and correlate Mehlich III and soil solution soluble P extracts to runoff P.	TCE	8 /18/2004 9 /30/2008	$390,657
04-05	Creekside Conservation Program Project	The purpose of this project is to protect Central Texas Highland Lakes by providing technical/financial assistance to landowners through the LCRA's Creekside Conservation Program and assess NPS reductions resulting from Creekside Conservation Program.	LCRA	8 /3 /2004 8 /31/2008	$507,300
04-06	Modeling Nutrient Loads from Poultry Operations in the Toledo Bend & Sam Rayburn Reservoir Watersheds	This project will simulate nutrient loadings for pre and post implementation conditions in the Toledo Bend Reservoir and Sam Rayburn Reservoir watersheds.	USDA NRCS-WRAT	4 /11/2005 3 /31/2008	$96,000
04-07	Technical Assistance and Implementation in West Fork of the Trinity River Watershed	This project will provide technical assistance to landowners in developing and implementing WQMPs within the West Fork of Trinity River Watershed.	Jack SWCD	8 /12/2004 8 /31/2007	$100,000
04-08	WQMP Implementation Assistance in Falcon Reservoir	This project will coordinate technical assistance activities in the Falcon Reservoir Drainage Area in Zapata County between TSSWCB, SWCD, NRCS, & Kika De La Garza PMC and provide technical/financial assistance to landowners to aid in development/implementation of WQMPs.	Zapata SWCD	8 /17/2004 4 /30/2008	$461,290

	Project Name	Project Description	Lead	Period	Federal
04-09	Seymour Aquifer Water Quality Improvement	This project will provide irrigators in Haskell, Knox, and Jones counties with opportunity to participate in water quality educational activities, technical assistance, financial assistance for implementation of BMPs, in order to improve water quality in Seymour Aquifer.	TWRI and Haskell, Knox and Jones SWCD	8 /19/2004 8 /31/2008	$764,054
04-10	Phytoremediation of excessively high phosphorus soils and subsequent reduced P runoff into North Bosque River	The objective of this project is to develop and demonstrate year-round forage systems for both abandoned and currently used waste application fields that can reduce P loads that soon will or already exceeds safe levels of plant-available P on the North Bosque River drainage.	TAES - Stephenville	8 /30/2004 8 /31/2008	$238,859
04-11	Watershed Protection Plan Development for the Pecos River	This project will assess the Pecos River Basin, increase landowner and stakeholder involvement through educational efforts, and develop a Watershed Protection Plan based on the river basin assessment.	TWRI	8 /25/2004 2 /29/2008	$709,381
04-12	Assessment of Springtime Contributions of Nutrients and Bacteria to the NBR	This project will provide storm and routine monitoring of tributaries to the NBR in order to assess ag NPS reductions. The project will focus on springtime contributions of nutrients and bacteria to water quality within tributaries of the NBR, assessing reductions in pre- and post-TMDL implementation periods.	TIAER	8 /15/2004 8 /31/2008	$90,090
04-13	Development of a Watershed Protection Plan for the Concho River Basin	This project will provide assessment of existing and potential water quality threats related to on-going NPS water pollution within the Concho River basin and develop a Watershed Protection Plan.	UCRA	8 /25/2004 2 /29/2008	$375,240
04-14	Assessment and Mitigation of Agricultural and Other NPS Activities in the Cypress Creek Basin.	The primary goal of the project is to evaluate the effectiveness of selected BMPs in reducing nutrient inputs to Big Cypress Creek and Lake O' Pines by documenting runoff quality from sites representing dominant soil & land use types, with/out BMPs.	NETMWD	8 /3 /2004 3 /31/2008	$442,805

	Project Name	Project Description	Lead	Period	Federal
04-15	Mathematical Model for Dispersal of Leaf Beetle, Diorhabda Elongata from Old World released in U.S. for Biological Control of Invasive Saltcedar	The goal of the project is to aid in the Implementation Plan for Sulfate and Total Dissolved Solids (TMDLs) in the J.B. Thomas, E.V. Spence and O.H. Ivey Reservoirs by biological control of saltcedar in riparian areas along the Colorado River of Texas and its tributaries.	ARS-USDA	10/27/2004 8 /31/2008	$136,724
04-16	Nueces Basin Headwaters Stewardship Project	Using public education, the project will concentrate on water quality concerns, impairments, and threats to water quality and streambed conditions in five headwater stream segments of the Nueces River Basin.	NRA	9 /1 /2004 2 /28/2008	$170,703
04-17	Plum Creek WPP	The purpose of this project is to coordinate the development of a Watershed Protection Plan for the Plum Creek Watershed and to facilitate beginning phases of implementation.	TCE	2 /24/2005 8 /31/2008	$440,503
04-18	BMP Verification in Richland-Chambers Watershed	The purpose of the project is to verify the effectiveness of nutrient load reduction BMPs in the Richland-Chambers watershed.	TAES-Blackland	8 /1 /2005 7 /1 /2008	$237,722
04-19	Regional Watershed Coordinator	The objective of this project is to successfully facilitate and coordinate watershed planning activities in the Wharton Regional Office service area.	TSSWCB	8 /31/2008	$145,249
05-01	Administration of the FY2005 CWA Section 319(h) Agricultural/Silvicultural NPS Management Program	Administer/manage the FY05 CWA 319(h) cooperative agreement between EPA and TSSWCB. Coordinate with project cooperators on administrative related issues and manage the financial aspects of each contract.	TSSWCB	9 /1 /2011	$104,480
05-02	Statewide NPS Pollution Management Project	Provide technical assistance for FY05 CWA 319(h) agricultural and silvicultural projects and ensure that projects meet all technical requirements and are successfully completed in a timely fashion.	TSSWCB	9 /1 /2011	$310,426

	Project Name	Project Description	Lead	Period	Federal
05-03	Ellis Prairie SWCD Project	This project will provide technical/financial assistance to qualifying producers on appropriate BMPs to reduce sediment, nutrient, and pesticide runoff and provide water quality educational events.	Ellis-Prairie SWCD	8 /1 /2005 8 /31/2008	$433,700
05-04	Silvicultural NPS Abatement	This project will reduce significant risks to water quality from silvicultural NPS pollution by implementing BMPs and increasing silvicultural NPS awareness by completing a statewide evaluation of silvicultural BMP implementation, providing technical assistance, education, coordination, and monitoring the effectiveness of forestry BMPs.	TFS	9 /1 /2005 8 /31/2008	$574,521
05-05	Watershed Education	The purpose of this project will be to develop and deliver an educational curriculum which functions to support the TSSWCB's effort to prepare a Watershed Protection Plan in the target watershed.	TCE	9 /1 /2005 8 /31/2008	$358,041
05-06	PLAN	The objective of this project is to educate 3rd party applicators of poultry litter to the environmental benefits of using proper application management techniques on new sites.	TCE	9 /1 /2005 8 /31/2008	$210,002
05-07	Impact of Proper Fertilizer Management	The objective of this project is to implement fertilizer management practices on cultivated and pasture fields to demonstrate the importance of using proper management relating to application method, timing, and rate, and conduct demonstration/educational activities on the importance of proper organic fertilizer management.	TCE	9 /1 /2005 8 /31/2008	$186,352
05-08	Peach Creek Project	This project will provide agricultural producers in the Peach Creek watershed with an opportunity to participate in water quality educational activities, technical assistance, and financial assistance for the implementation of Best Management Practices (BMPs), in order to improve water quality.	Gonzales SWCD	9 /1 /2005 8 /31/2008	$465,123

	Project Name	Project Description	Lead	Period	Federal
05-09	Lake Granger Project	The Brazos River Authority will facilitate the development of a Watershed Protection Plan for the Lake Granger Watershed. This project will also provide the Little River-San Gabriel and Taylor SWCDs with funding for technical/ financial assistance to implement BMPs through conservation planning.	BRA & Little River-San Gabriel and Taylor SWCD's	9 /1 /2005 8 /31/2008	$814,168
05-10	Arroyo Eduation Project	The purpose of this project is to educate agricultural producers on how to better produce and manage their acreage and support and promote associated programs implementing BMPs related to water quality protection.	TWRI	9 /1 /2005 8 /31/2008	$103,959
05-12	Arroyo WQMP Project	This project will provide technical assistance to landowners to aid in the development and implementation of a minimum of 78 WQMPs in the Arroyo Colorado Watershed.	Hidalgo & Southmost SWCDs	9 /1 /2005 8 /31/2008	$970,478
05-13	Composting Support - DMES	The project consists of the TSSWCB working cooperatively with participating entities, dairy producers, manure haulers, and others in the Bosque and Leon River watersheds to provide financial assistance to manure haulers in the creation and removal of a marketable-composted product.	TSSWCB	9 /1 /2005 9 /30/2007	$228,000
06-01	Administration of the FY2006 CWA Section 319(h) Agricultural/Silvicultural Nonpoint Source Management Program	Administer and manage the FY2006 CWA 319(h) cooperative agreement between EPA and TSSWCB. Coordinate with project cooperators on administrative related issues and manage the financial aspects of each contract.	TSSWCB	10/1 /2006 9 /1 /2011	$294,343
06-02	FY06 Statewide NPS Pollution Management Project	Provide technical assistance for FY06 CWA 319(h) agricultural and silvicultural projects and to ensure that the projects meet all technical requirements and are successfully completed in a timely fashion.	TSSWCB	10/1 /2006 9 /1 /2011	$487,998
06-03	TSSWCB NPS Team Support	Provide technical assistance for FY01 - FY06 CWA 319(h) agricultural and silvicultural projects to ensure that the projects meet all	TSSWCB	10/1 /2006 9 /1 /2011	$44,000

	Project Name	Project Description	Lead	Period	Federal
06-04	Improvement and Standardization of Laboratory Quality Assurance and Quality Control for Mehlich III Soil Test Methodology: Phase 2	The purpose of this project is to develop appropriate and standardized quality assurance/quality control and standard operating procedures (SOP) for use of the Mehlich III soil test extractant.	Texas Cooperative Extension	10/1 /2006 9 /30/2009	$100,786
06-05	Lone Star Healthy Streams	This project will reduce the levels of bacterial contamination of Texas watersheds from grazing livestock (beef cattle) by developing an educational curriculum that delivers current knowledge training in production and environmental management of grazing lands and their associated watersheds, evaluating and demonstrating the effectiveness of BMPs in reducing bacterial contamination of streams and water bodies from grazing lands, testing the functionality of the education program and make necessary changes and program modifications based on the results, and promoting Statewide adoption of appropriate best management practices (BMPs) and other watershed / water quality protection activities through education, outreach and technology transfer.	Texas Water Resources Institute	10/1 /2006 9 /30/2009	$404,673
06-06	Envirocast Phase II	The principal goal of e-Life is to continue developing public understanding and awareness of watershed issues through environmental stories and features broadcasted during e-Life segments. The second phase will build upon the e-Life broadcasting platform and Web tools established during the first phase. By continually exposing the North Central Texas public to e-Life concepts, the project aims to help the public adopt NPS pollution prevention behaviors.	NCTCOG	2 /1 /2007 4 /30/2008	$272,785
06-07	Monitoring and Educational Programs Focused on Escherichia coli Bacteria and Nutrient Runoff on Dairy Operations in the Leon Watershed	The objectives of this project are to evaluate the presence of E. coli bacteria and nutrients on livestock operations and determine the risks of movement of E. coli and nutrients to surface waters, educate livestock producers about best management practices to decrease E. coli bacteria and nutrients in runoff from livestock operations, and determine the source(s) of E. coli in runoff from the sites and its relative contribution to the E. coli populations downstream of the waste application fields.	Texas Cooperative Extension	10/1 /2006 9 /30/2009	$438,357

	Project Name	Project Description	Lead	Period	Federal
06-08	Education Program for Improved Water Quality in Copano Bay	The objective of this project is to improve the water quality in Copano Bay and its tributaries by increasing awareness of the water quality issues throughout the watershed and providing education and demonstrations for landowners and livestock owners in the watershed on practices to decrease or prevent bacteria from entering waterways.	Texas Water Resource Institute	10/1 /2006 9 /30/2009	$211,794
06-09	WQMP Implementation in the Middle and South Bosque River Watersheds	This project will provide technical and/or financial assistance to landowners to aid in the development and implementation of WQMPs and compile information on the location and types BMPs for each WQMP implemented.	TSSWCB	11/1 /2006 9 /30/2009	$527,770
06-10	Arroyo Colorado Agricultural Nonpoint Source Assessment	This project will better characterize agricultural runoff in the Arroyo watershed, demonstrate, and evaluate BMP effectiveness, and measure progress in achieving water quality goals in the watershed. The objectives of the project are to perform a complete historical data review and analysis related to water quality and agricultural best management practices implemented in the watershed, investigate site-specific differences and temporal variation of water quality in drainage from agricultural production areas, and collect data for future recalibration of SWAT model to better estimate the total nonpoint source loading into the river.	Texas Water Resources Institute	10/1 /2006 9 /30/2009	$430,650
06-11	Buck Creek WPP	The objectives of this project are to identify specific sources of the bacteria in Buck Creek, evaluate potential management alternatives for restoring the waterbody and educate landowners on the best management practices, and develop a watershed protection plan to restore the waterbody through a stakeholder driven process.	Texas Water Resources Institute	10/1 /2006 9 /30/2009	$430,181
06-12	Leon River WPP	The objectives of this project are to use a locally-driven, stakeholder process to develop a Watershed Protection Plan for the Leon River Watershed above Lake Belton; enhance data collection efforts to support and facilitate implementation activities; provide the TSSWCB and the TCEQ with recommendations on implementation strategies that can be incorporated into the TMDL Implementation Plan; and provide an overall assessment of the Leon River Watershed above Lake Belton.	Brazos River Authority	10/1 /2006 9 /30/2009	$440,525

	Project Name	Project Description	Lead	Period	Federal
06-13	Three EQIP Technicians	The objective of the project is to provide technical assistance to landowners to aid in the development, implementation, and/or maintenance of WQMPs through SB503, Clean Water Act (CWA) Section 319(h) and EQIP funds and compile information on the location and types BMPs for each WQMP implemented.	Karnes, Atascosa, & Dewitt SWCDs	12/1 /2006 9 /30/2009	$387,900
06-15	SWQM for Copano Bay TMDL	The objective of this project is to provide quality assured surface water quality monitoring data to support development of bacteria TMDLs for Copano Bay and Mission and Aransas Rivers in Aransas, Bee, Goliad, Karnes, Refugio, and San Patricio Counties.	Nueces River Authority	1 /1 /2007 9 /30/2009	$214,388
07-01	Administration of the FY2007 CWA Section 319(h) Agricultural/Silvicultural Nonpoint Source Management Program	Administer/manage the FY07 CWA 319(h) cooperative agreement between EPA and TSSWCB. Coordinate with project cooperators on administrative related issues and manage the financial aspects of each contract.	TSSWCB	10/1 /2007 9 /30/2010	$290,000
07-02	FY2007 Statewide Agricultural/Silvicultural NPS Management Program	Provide technical assistance for FY07 CWA 319(h) agricultural and silvicultural projects and ensure that projects meet all technical requirements and are successfully completed in a timely fashion.	TSSWCB	10/1 /2007 9 /30/2010	$460,000
07-03	Adaptation of AVGWLF watershed model for use in Texas: Phase I	The purpose of this project is to test and modify the AVGWLF watershed model for use in selected areas of Texas and surrounding states.		10/1 /2007 9 /30/2010	$122,623
07-04	Management Repository of Agricultural and Silvicultural Environmental Data	Development of a comprehensive, user-friendly database that will house data collected via CWA §319(h) Grant Program funds allocated to and through the Texas State Soil and Water Conservation Board.	Blackland Research & Extension Center	10/1 /2007 9 /30/2010	$323,342

	Project Name	Project Description	Lead	Period	Federal
07-05	LCRA Soil and Water Stewardship Program	Protect the Texas lower Colorado River basin by providing educational, technical and financial assistance to landowners through the Lower Colorado River Authority's Soil and Water Stewardship Program. Assess NPS reductions resulting from the Soil and Water Stewardship Program. Join with local soil and water conservation districts in promoting and educating agricultural producers and local stakeholders on abatement of NPS pollution through implementation of conservation practices and promotion of Water Quality Management Plans.	LCRA	10/1 /2007 9 /30/2010	$458,224
07-06	Fate and Transport of E. coli in Rural Texas Landscapes and Streams	The main objectives of this project are to identify, characterize, and quantify E. coli loads resulting from various sources in an impaired watershed, monitor survival, growth, re-growth, and die-off of E. coli under different environmental conditions, monitor re-suspension of E. coli in streams, and educate stakeholders by disseminating qualitative and quantitative information acquired in this monitoring and demonstration project.	TWRI	10/1 /2007 9 /30/2010	$300,000
07-07	Assessment of NPS Pollution from Cropland in the Oso Bay Watershed	The long-term goal of this project is to support program implementation efforts of the TSSWCB, the Nueces SWCD #357, and the TCEQ established to protect and restore the water quality of the Oso Bay and Oso Creek water bodies from NPS. Goals and objectives pursued in the project are the assessment of runoff-related loadings of nutrients, selected inorganic ions, suspended sediments, and bacteria (Enterococcus) from the Oso Creek's watershed and (the development of a better understanding of the role of these runoff-related loadings on the dynamics of water quality properties in these water bodies	TAES-CC	10/1 /2007 9 /30/2010	$165,050
07-08	Regional Watershed Coordinator	The objective of this project is to successfully facilitate and coordinate watershed planning activities in the Wharton Regional Office service area.	TSSWCB	10/1 /2007 9 /30/2010	$194,000

	Project Name	Project Description	Lead	Period	Federal
07-09	Statewide Implementation of the Texas Watershed Steward Program	The objective of this project is to facilitate statewide implementation of the Texas Watershed Steward (TWS) program through watershed-based group trainings and computer-based distance training components. · This project will increase stakeholder involvement in the WPP and/or TMDL development processes by educating and organizing local citizens and to promote healthy watersheds by increasing citizen awareness, understanding, and knowledge about the nature and function of watersheds, potential impairments, and watershed protection strategies to minimize nonpoint source pollution.	TCE	10/1 /2007 9 /30/2010	$520,000
07-10	Broad-based Communication and Forecasting for Environmental Quality (Envirocast- Houston)	This project will develop a plan of action to create and maintain a website for water quality & other environmental issues and environmental quality broadcast spots to educate the public in the target watersheds in partnership with StormCenter Communications Inc. and Houston Channel 11 (CBS Affiliate); develop partnerships with state, federal and regional agencies and local governments as local content providers to provide information for the website and broadcast spots; publicize and promote the project; train partnering station and local content providers on developing, implementing and utilized the Envirocast tools; evaluation of Phase I; project administration.	HGAC	10/1 /2007 9 /30/2010	$725,000
07-11	Lampasas River Watershed Assessment and Protection Project	The purpose of this project is to work in concert with federal, state and local partners to coordinate a stakeholder driven process for the development of a WPP in the Lampasas River Watershed that is consistent with EPA's nine essential elements fundamental to a potentially successful WPP.	TAES- BREC	10/1 /2007 9 /30/2010	$498,422
07-12	Assessing Water Quality Management Plan Implementation in the Middle and South Bosque River and Hog Creek Watersheds	This project will provide storm and routine monitoring of the Middle and South Bosque River and Hog Creek watersheds in order to assess ag NPS reductions associated with implementation of WQMPs within waterbodies of concern for nitrite-nitrate nitrogen. A secondary objective is to monitor reductions in bacteria concentrations through routine grab sampling.	TIAER	10/1 /2007 9 /30/2010	$308,640

	Project Name	Project Description	Lead	Period	Federal
07-13	Identify and Characterize NPS Bacteria Pollution to Support Implementation of Bacteria TMDLs in the Oso Bay Watershed	To provide information on nonpoint sources of enterococci in the upstream section of Oso Creek to state agencies and local planning entities in support of the Implementation Phase of the Oso Creek/Oso Bay watershed TMDL	Texas A&M University-Corpus Christi	10/1 /2007 9 /30/2010	$442,372
07-14	Agricultural NPS Remediation in the Cedar Creek Reservoir Watershed	The project's goal is to reduce nutrient and sediment loading to Cedar Creek Reservoir by implementing BMPs on crop and pasture lands. The objectives are to encourage BMP implementation by providing landowners with technical and financial assistance through the Kaufmann-Van Zandt SWCD and educational programs through Texas Cooperative Extension. Effectiveness of BMPs will be assessed by TAES.	Kaufman-Van Zandt SWCD #505	10/1 /2007 9 /30/2010	$736,619

TEXAS STATE SOIL & WATER CONSERVATION BOARD

SEMI - ANNUAL REPORT

TO THE

GOVERNOR,
LIEUTENANT GOVERNOR,
AND
SPEAKER OF THE HOUSE

JULY 1, 2008

Forward

In response to S.B. 1828 passed by the 78th Texas Legislature in Regular Session, 2003, the Texas State Soil and Water Conservation Board presents this review of its programs and activities. S.B. 1828 added §201.028 to the Texas Agriculture Code to provide that the TSSWCB shall prepare and deliver to the Governor, the Lieutenant Governor, and the Speaker of the House of Representatives a report, not later than January 1 and July 1 of each year, relating to the status of the budget areas of responsibility assigned to the State Board including outreach programs, grants made and received, federal funding applied for and received, special projects, and oversight of soil and water conservation district activities.

The FY08 Operating Budget with past expenditures is attached to this report. Information on grants made to local districts and other entities is incorporated within the program section it involves. Ongoing Federal grant program projects under the Clean Water Act are provided in another attachment.

The Texas State Soil & Water Conservation Board takes pride in the accomplishments and remarkable progress that have been made in soil and water conservation in this state. Often environmental successes are slow to be realized. We have realized and previously reported one success story that involves reducing the level of Atrazine in several water bodies, particularly the Aquilla Reservoir in the Hill County-Blackland SWCD.

However, we recognize there remains a continuing challenge and an ongoing need to ensure our land has the capability to produce food and fiber for future Texans. Because of changes in land use, ownership, technology, and population growth, the need for soil and water conservation programs will remain critical. Texas has a finite number of acres to provide for the needs and desires of citizens and visitors, and this places an ever-increasing demand on agricultural land. Farmers and ranchers face complex decisions concerning the best ways to manage and utilize the land available to them.

We believe that soil and water conservation programs must remain dynamic as land uses change and technology improves to make some conservation practices more capable of meeting demands on soil and water resources. We also maintain the belief that the purpose of the soil and water conservation program is to promote the wise use of our renewable natural resources and provide for the conservation and enhancement of the soil and water resources of this state through and by the dynamic decisions of local soil and water conservation districts which promotes the use of each acre of land within its capabilities and treating it according to its needs.

From the beginning, the Texas State Soil and Water Conservation Board and local soil and water conservation districts have formed an organizational framework through which various complex governmental conservation programs are delivered to local landowners and operators. This relationship has successfully been utilized to disseminate sound management techniques and practices to maintain individual productive land uses to provide for the needs of present and future generations.

To the landowners of Texas, the individual soil and water conservation district directors, and the many agencies and organizations assisting and working with our programs, we offer our sincere thanks.

Table of Contents

	Page
Historical Background	4
Organization	6
Staff	7
Soil and Water Conservation Districts	8
Annual State Meeting Of Soil and Water Conservation District Directors	10
Director Mileage and Per Diem	10
District Technical Assistance Funds	10
Agricultural Water Conservation Grant	10
District Conservation Assistance Program	11
Programs and Activities of the TSSWCB	11
Statewide Nonpoint Source Management Program	12
Total Maximum Daily Load Program	13
Task Force on Bacteria Total Maximum Daily Loads	15
Watershed Protection Plan Program	16
Water Quality Management Plan Program	19
Poultry Water Quality Management Plan Initiative	22
Comprehensive Nutrient Management Plan Program	24
Statewide Bacterial Water Quality Impairment Reduction Initiative	24
Coastal Management Program	25
Background	25
Current Status	26
Information Technology	27
Public Information /Education Report	28
General Overview	28
2008 Summer Teacher Workshops	28
2008 Texas Conservation Awards Program	29
Soil & Water Stewardship Public Speaking Contest	31
Wildlife Alliance For Youth	31
State Woodland Clinic and Contest	32
Regional Woodland Clinic	32
Conservation Education Video Library	33
Nonpoint Source (NPS) Pollution Watershed Flow Model	33
Water Conservation Enhancement Program Status Report	34
TSSWCB FY08 Operating Budget	Atch 1
Ongoing Clean Water Act, §319(h) Grant Program Projects	Atch 2

Historical Background

In the early history of the United States, those involved in agriculture often did not consider the conservation of soil and water resources. Land was cleared and put into farm production. When the land quit producing at a profitable level, the farmers merely moved on to new land farther west and started the process over again. There was no need to be concerned with soil conservation, as there was a seemingly unlimited supply of virgin land waiting to be tilled. This process continued through the 1800s and into the early 1900s. With the outbreak of World War I, farmers in the Great Plains states were encouraged to break out native grassland to grow wheat and other foodstuffs to feed the nation and the world. As a result of these and other unwise management practices and the fact that the farmlands were experiencing long periods of drought, the 1930s produced some of the worst dust storms the nation had ever seen. Clouds of dust rolled across the plains states sending dust storms through the south and into the nation's capital. At the same time, the nation was in the midst of a great economic depression. The federal government, seeking ways to put people back to work and encourage conservation, created the Civilian Conservation Corps and Soil Erosion Service. Through these mechanisms, demonstration projects were initiated to train technicians and to educate the public in ways to conserve soil resources. These programs were successful in putting people back to work, but lacked the local ties to establish lasting conservation programs.

One of the early day leaders in the national effort to control soil erosion was Hugh Hammond Bennett from North Carolina. After graduation from the University of North Carolina in 1903, Hugh Bennett took a job with the Bureau of Soils in the United States Department of Agriculture. Because of his experience, scientific knowledge and leadership ability, he was put in charge of the Soil Erosion Service when it was created in 1933. In 1935, P.L. (Public Law) 46 was passed creating the Soil Conservation Service within the U.S. Department of Agriculture and Hugh Bennett became the first Chief of the agency. He soon became internationally known for his accomplishments in conservation work.

With the help of Congressman Buchannan from Columbus, Texas, Hugh Bennett was able to persuade President Franklin Roosevelt that the soil resources of this nation were being wasted. He convinced the President that a Model Soil Conservation Act should be developed and sent to the governors of each state for passage by their state legislatures. The purpose of this Model Act would be to develop programs at the state and local level to control soil erosion.

In 1936, such a Model Act was sent to the governors with the endorsement of President Roosevelt. The Model Act, developed in Washington, was patterned after the Texas Wind Erosion Act, the Grass Conservation Acts in the Northern High Plains and certain water conservation district law.

In 1937 legislation was introduced in the Texas Legislature based on this Model Act. It is reported that as many as 25 different versions of this soil conservation law were considered before a final version was passed. There was much heated discussion of the proposed legislation. When the final version was adopted, the bill contained many undesirable features. The law would have set up Soil Conservation Districts automatically on a county basis and made County Commissioners Courts the governing body. A portion of the county tax was to be used to finance the program and county agricultural agents were to be the administrative officers.

A number of agricultural leaders from across the state had, by this time, become concerned about the newly passed legislation. It was their opinion that, if the responsibility for installing and maintaining conservation measures lay in the hands of the land owners, the control of such a program should also be

in their hands. As a result of these and other concerns, a group of landowners led by V.C. Marshall of Heidenheimer, Texas, convinced the Governor to veto the 1937 legislation.

Hard feelings among agricultural leaders resulted from the attempt to pass this soil conservation law. Under the leadership of Mr. Marshall, a concerted effort was made during the interim between legislative sessions to heal the old wounds and to put together a version of a law that would be generally accepted by the farmers and ranchers of Texas. Mr. Marshall organized a committee of leaders from across the state to promote the passage of a new Soil Conservation Law. He traveled many miles at his own expense seeking the views of agricultural leaders and promoting the idea of the Soil Conservation District Program.

The key points Mr. Marshall felt should be included in the new law were that (1) farmers and ranchers should determine whether or not a Soil Conservation District was needed and hold a local option election prior to the establishment of the district; (2) the program should be controlled by landowners; and (3) the Soil Conservation Districts should have no taxing authority or the power of eminent domain.

In 1939 the Texas Legislature passed H.B. (House Bill) 20 which incorporated those features and was the first Soil Conservation Law for the state. The law created the State Soil Conservation Board and allowed for the creation of the Soil Conservation Districts. Mr. Marshall was elected as the first Chairman of the Soil Conservation Board and later resigned to become the first Executive Director of the agency.

On April 30, 1940, the Secretary of the State issued Certificates of Organization for the first 16 Soil Conservation Districts paving the way for the program we now operate. Today, Texas has 217 local soil and water conservation districts that encompass more than 99% of the state.

As previously mentioned, the Model Act endorsed by President Roosevelt was in part patterned after the Texas Wind Erosion Act. Texas was already making attempts to address soil conservation as a result of the "Dust Bowl" days of the 1930s. The 44th Legislature in 1935 passed legislation authorizing the establishment of Wind Erosion Conservation Districts. This law provided for the creation of districts to "conserve the soil by prevention of unnecessary erosion caused by winds, and the reclamation of lands that have been depreciated or denuded of soil by reasons of winds." Although a number of Wind Erosion Control Districts were created, the passage of the Soil Conservation District Law in 1939 resulted in those districts becoming dormant.

In 1975, Governor Dolph Briscoe, by Executive Order, designated the TSSWCB as lead agency to assume the planning and management responsibility for control of agricultural and silvicultural nonpoint source pollution as required by the Federal Water Pollution Control Act.

In 1981 the 67th Legislature passed H.B. 1436, which for the first time codified the agricultural laws of Texas. Title 7, Chapter 201 of this code contains the portion pertaining to Soil and Water Conservation.

In 1985 the 69th Legislature passed S.B. 1083 creating a Brush Control Program in Texas and granting new powers and responsibilities, without funding, to the TSSWCB and Soil and Water Conservation Districts under Chapter 203 of the Agriculture Code. In 1999, the TSSWCB received its first appropriation in the FY00-01 biennium to control water-depleting brush and trees, such as cedar and mesquite. The program received $9.1 million to establish a pilot project in the North Concho Watershed.

In 1993, the 73rd Legislature passed S.B. 503 which named the TSSWCB the lead agency to address water quality issues relating to runoff from diffused, or nonpoint sources resulting from agricultural and forestry operations. In 1999, the Legislature expanded the TSSWCB's environmental mission and appropriated money to address water pollution from nonpoint sources under a separate, federally mandated program.

The leaders who framed the Texas Soil and Water Conservation Law in 1939 recognized that landowners and operators of private land constitute the basic resource for the conservation of our renewable natural resources. Without the support and willing participation of private landowners and operators in the development and implementation of soil and water conservation programs there is little hope of success. Local soil and water conservation districts led by farmers and ranchers who know the land and the local conditions and problems have the means to develop conservation plans that address each acre of land specific to its needs to solve or reduce the severity of its problems.

Organization

Since inception, the TSSWCB has been governed by five board members, elected by delegates from each of five regions of the state's 217 local soil and water conservation districts. Elections occur annually at regional conventions of the local soil and water conservation districts, with members serving two-year staggered terms. However, with the enactment of S.B. 1828 by the 78th Legislature, two Governor appointees join the five elected board members to create a seven-member board. The two Governor appointed positions are listed below. The term of one member appointed by the Governor expires February 1 of each odd-numbered year, and the term of the other member appointed by the Governor expires on February 1 of each even-numbered year.

Elected State Board members must be 18 years of age or older; hold title to farmland or ranchland; and be actively engaged in farming or ranching. The Governor appointees must be actively engaged in the business of farming, animal husbandry, or other business related to agriculture and wholly or partly owns or leases land used in connection with that business; and may not be a member of the board of directors of a conservation district.

The State Board elects its own Chair and generally meets every odd month, unless specific programs or issues require more immediate action. The following list shows the current Board members and shows which State Board Region they represent.

Texas State Soil and Water Conservation Board

Member Name	**Region**	**Term**	**Residence**
Aubrey L. Russell	#1	May 1, 2007 – May 5, 2009	Panhandle
Marty H. Graham	#2	May 6, 2008 - May 4, 2010	Rocksprings
José O. Dodier, Jr.	#3	May 1, 2007 – May 5, 2009	Zapata
Jerry D. Nichols	#4	May 6, 2008 – May 4, 2010	Nacogdoches
Barry Mahler	#5	May 1, 2007 – May 5, 2009	Iowa Park
Larry D. Jacobs	Appointed	February 1, 2006-February 1, 2008	Montgomery
Joe L. Ward	Appointed	February 1, 2007-February 1, 2009	Telephone

Staff

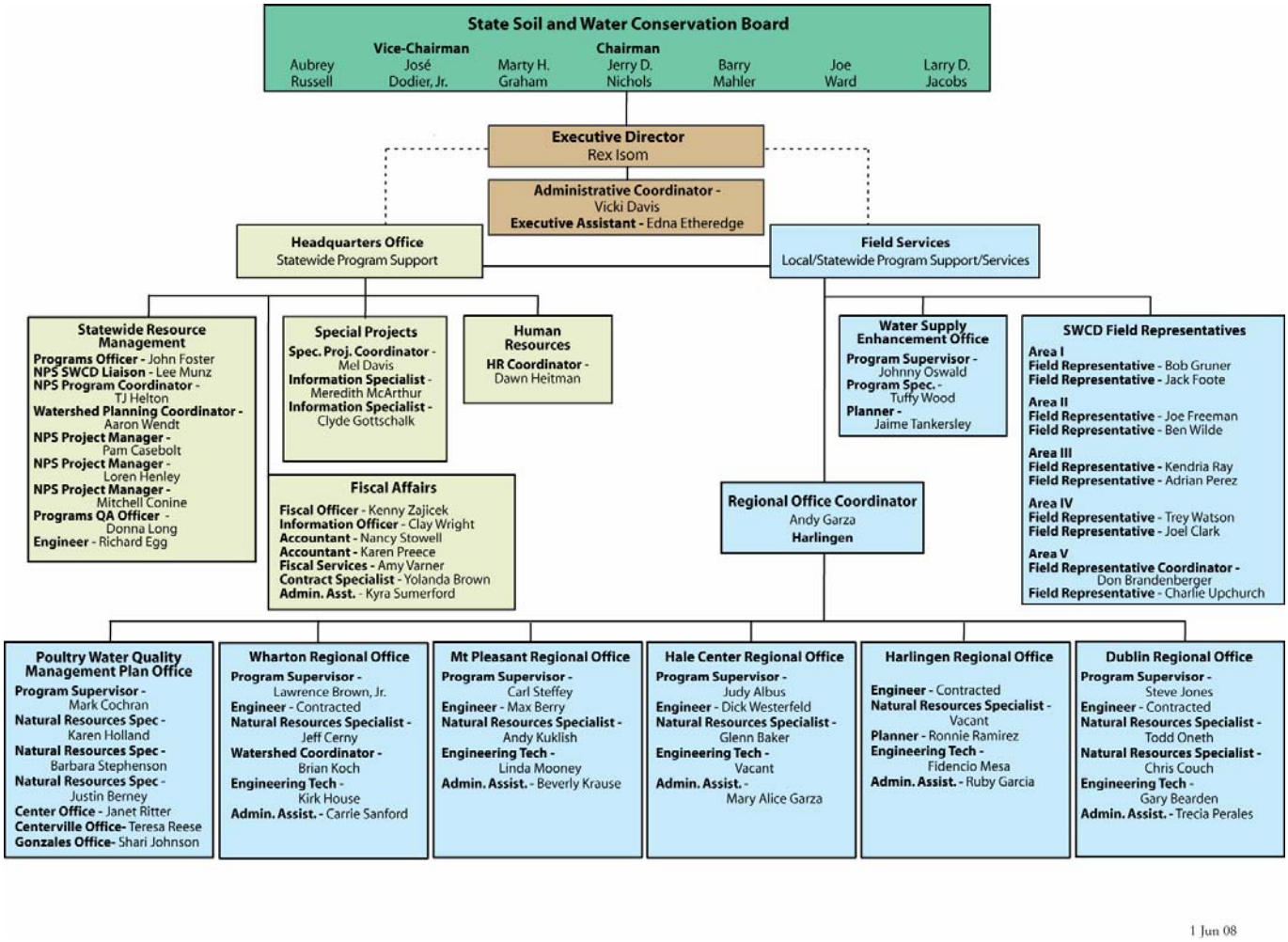
Mr. Rex Isom was named as the Executive Director in January 2004 and continues to carry out the directives of the State Board and directing staff efforts. We emphasize our agency philosophy as stated in our Strategic Plan, "The State Soil and Water Conservation Board will act in accordance with the highest standards of ethics, accountability, efficiency, and openness. We affirm that the conservation of our natural resources is both a public and a private benefit, and we approach our activities with a deep sense of purpose and responsibility." Mr. Isom, as Executive Director, is leading the agency in that direction and expects all employees to follow that lead.

The 80th Legislature authorized appropriations for 4 additional full-time employees (FTEs) for the Water Quality Management Plan Program to conduct activities related to poultry production, and an additional 2 full-time employees to facilitate the development and implementation of Total Maximum Daily Loads.

As of June 1, 2008 the TSSWCB employed 66 staff, 23 of which work in the Temple headquarters. The remaining employees are field staff, either working out of their homes or located in seven satellite offices; five regional offices and two program specific offices, located throughout the state. Due to difficulty in recruiting engineers, two field engineer positions remain contracted. The following organization chart shows the agency's current structure.

The current structure of the TSSWCB reflects efforts to maintain more personnel in the field and away from headquarters for a 65% to 35% ratio of Field personnel to Headquarters personnel.

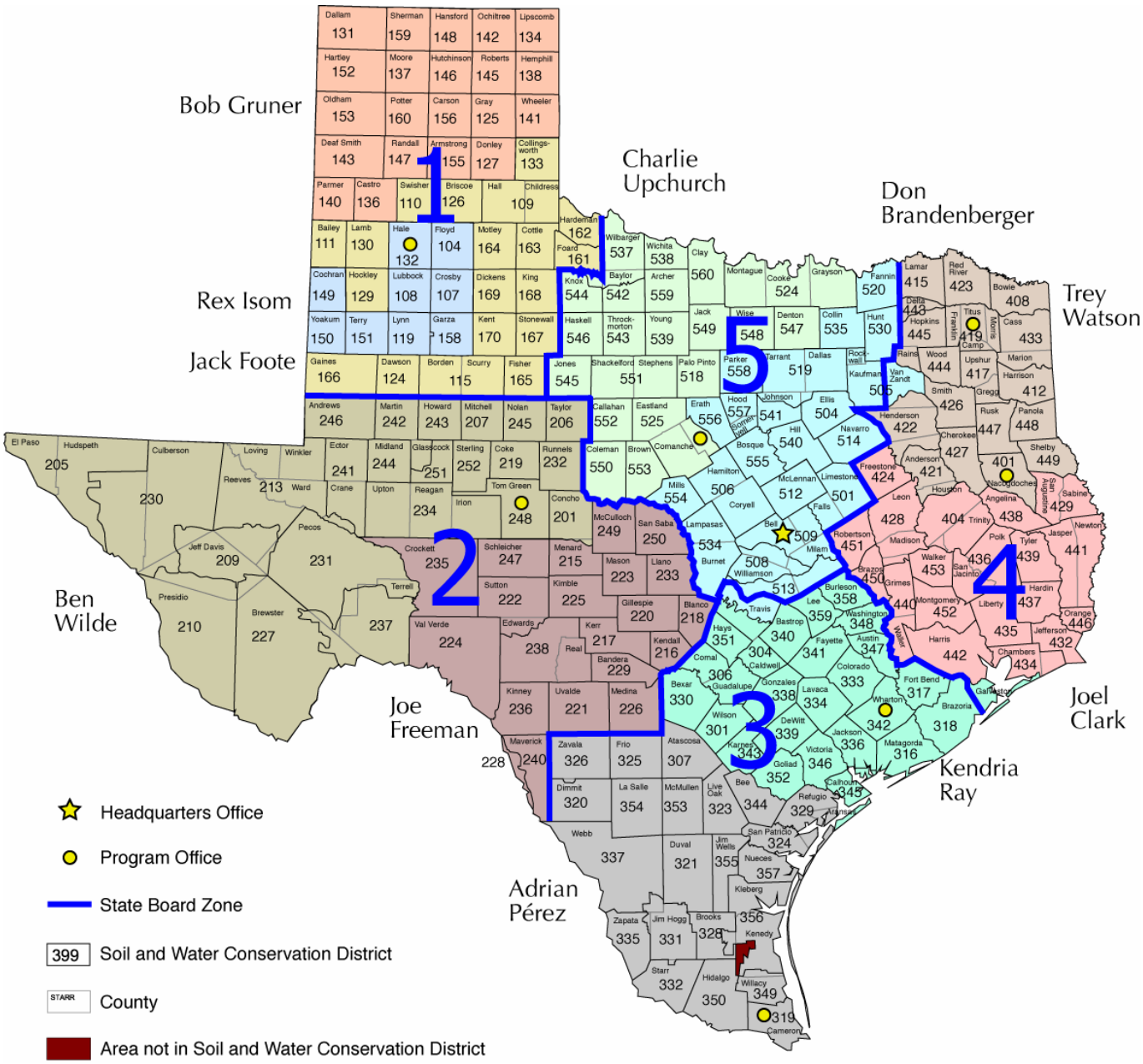
The regional office staff along with the program specific staff provides on-site technical assistance to farmers and ranchers. The field staff serves as a liaison between the TSSWCB and local districts. The field staff also provides assistance to local districts and district employees concerning operations, programs, and activities. The regional office staff and the program specific staff coordinates with the Texas Commission on Environmental Quality (TCEQ), Texas Cooperative Extension (TCE), and the USDA's Natural Resource Conservation Service (NRCS) to provide technical assistance to landowners to implement Water Quality Management Plans (WQMPs).



Soil and Water Conservation Districts

The TSSWCB performs many of its activities in coordination with the state's 217 local soil and water conservation districts. These local districts are political subdivisions of the state, established through local option elections of agricultural landowners. Districts generally reflect county boundaries, but may also follow river basin or watershed boundaries, depending on the desires of the local landowners.

The following soil and water conservation district map shows the current 217 local districts that cover almost the entire state. That portion of the state not in a soil and water conservation district is in Kenedy County and contains the privately owned King Ranch. The map also shows the grouping of the districts into the five State Board Districts that respectively elect a State Board member and shows the field staff that is assigned to work with each district within a specific area.



Landowners within these local districts elect the five district directors that comprise the districts governing body or board of directors. This board of directors administers the programs and activities of the district. Representatives of the districts within each region then elect the members of the State Board through a series of convention style-elections.

Districts do not have taxing authority and rely on locally generated funds from various activities and programs, federal assistance, county assistance, and state assistance from the TSSWCB. The USDA Natural Resource Conservation Service (NRCS) provides most of the federal assistance available to districts and through cooperative agreements provides technical assistance to farmers and ranchers requesting assistance from the district.

Annual State Meeting Of Soil and Water Conservation District Directors

The Annual State Meeting of Soil and Water Conservation District Directors, required in §201.081, Texas Agriculture Code, convened in Waco October 2007. There were 122 districts represented, with 256 individual district directors that registered for the meeting. The total registration was 651.

Currently the agency is planning for the 2008 annual meeting which is scheduled for September 29-30 and October 1 in Galveston.

Director Mileage and Per Diem

The passage of H.B. 496 by the 80th Legislature allows for an increase in the reimbursement rate for District Director Mileage claims from 18 cents to the current state rate of mileage. However, the legislation did not provide additional funding to cover the cost of the increase.

At its November 2007 Meeting, the TSSWCB approved an additional $83,000 to supplement Director Mileage & Per Diem allocations for FY 2008 claims only. The total program appropriation for FY 2008 will be $408,000. In FY 2009, allocations will revert back to the original program appropriation of $325,000. The TSSWCB anticipates working with the Legislature to pursue a supplemental appropriation in January 2009.

District Technical Assistance Funds

The 80th Legislature provided Districts with an approximate 40% increase in Technical Assistance Funds for the 2008-09 Biennium. The TSSWCB disburses Technical Assistance payments to Districts on a reimbursing basis to supplement their efforts in providing assistance to agricultural producers in the state. Distributions are contingent upon Districts filing annual performance reports with the TSSWCB. The FY 2008 appropriation for this program is $1,439,445.00.

Agricultural Water Conservation Grant

The TSSWCB, on behalf of local soil and water conservation districts, applied to the TWDB for grant funding to continue the agricultural water conservation program. Soil and water conservation districts provide technical and planning assistance to agricultural producers for implementing conservation best management practices on their farms and ranches.

The TSSWCB received an agricultural water conservation grant of $100,000 from the TWDB for fiscal year 2007. The funds from the grant were allocated to eligible soil and water conservation districts to support technical assistance in planning agricultural water conserving best management practices on farms and ranches. Eligible best management practices are those that directly or indirectly produce water savings and those that reduce erosion, a cause of increased sedimentation of Texas' surface water reservoirs. The grant award of $100,000 supplements $100,000 in technical assistance funding allocated to local soil and water conservation districts for support of planning and implementing conservation best management practices on farms and ranches.

A total of 199 soil and water conservation districts participated in this program for FY 07. This is the third year the TSSWCB has participated in this grant program. A draft final report has been completed. The assistance performed by these soil and water conservation districts yielded in over 475,000 ac-ft of potential water savings for the State. The program in previous years has resulted in an estimated 870,000 ac-ft potential water savings for the State.

There was no grant from TWDB for FY 08.

District Conservation Assistance Program

The 80th Legislature provided Conservation Assistance Grants to Districts for the 2008-09 Biennium. The grants are awarded on a matching basis requiring Districts to raise funds from sources other than the TSSWCB. Districts do not have taxing authority and use locally raised funds with this matching grant to support their operational expenses. The FY 2008 appropriation for this program is $916,364.00.

Programs & Activities of the TSSWCB

The services and programs provided by the TSSWCB target rural Texas farmers and ranchers, but the results of these services benefit all Texans. For example, many of the flood control structures maintained by soil and water conservation districts serve to protect heavily populated areas from flood damage, and also prevent sediment from building up in suburban drinking water supplies. Another example is the use of best management practices, implemented through TSSWCB-certified water quality management plans, to prevent pesticides, nutrients, bacteria and other contaminants from impairing Texas waters.

The agency is responsible for numerous natural resource conservation efforts, the most prominent of which is serving as the lead state agency for the prevention, management, and abatement of nonpoint source pollution resulting from agricultural and silvicultural (forestry-related) activities. To fulfill this mandate, the agency jointly administers the Texas Nonpoint Source Management Program. As a result, the majority of the agency's programs and services aim to improve and protect water quality, including the Water Quality Management Plan Program, the Clean Water Act §319(h) Nonpoint Source Grant Program, the Total Maximum Daily Load Program and the Watershed Protection Plan Program.

The TSSWCB is also responsible for water conservation, or water quantity. The major existing program addressing water conservation is the Water Supply Enhancement, although the agency is conducting preliminary work on a new program that would provide assistance to Texas landowners who irrigate cropland from both ground and surface water sources. The Water Conservation Implementation Task Force, created by the 78th Texas Legislature through Senate Bill 1094 introduced by Senator Duncan, issued a final report to the 79th Texas Legislature recommending a state cost-share program be implemented through the TSSWCB to assist landowners in implementing best management practices that conserve water resources. If the agency is asked by the Legislature to fully develop the new program, it would likely be patterned after the Water Quality Management Plan Program created by Senate Bill 503 in 1993.

Other responsibilities include prevention of soil erosion, control of floods, maintaining the navigability of waterways, the preservation of wildlife, protection of public lands, and providing information to landowners regarding the jurisdictions of the TSSWCB and the Texas Commission on Environmental

Quality (TCEQ) related to nonpoint source pollution. The TSSWCB has no regulatory functions; all of the agency's programs and services are voluntary in nature.

Statewide Nonpoint Source Management Program

Congress enacted Section 319(h) of the Clean Water Act in 1987, establishing a national program to control nonpoint sources of water pollution. Through §319(h), federal funds are appropriated to the U.S. Environmental Protection Agency (EPA) and then granted to the states for the development and implementation of the State's Nonpoint Source Management Program. Texas' share of the §319(h) funding is divided evenly between the TCEQ and TSSWCB.

An approved management program is a requirement for receiving §319(h) grant funding. The *Texas Nonpoint Source Management Program* is jointly administered by the TSSWCB and the TCEQ. The *Program* was revised for 2005-2010 and, after going through extensive public comment and review, was approved by the TSSWCB on September 15, 2005 and by TCEQ on October 26, 2005. The *Program* was certified by the Attorney General's Office and was submitted by the Governor to EPA on December 15, 2005. The *Program* was approved by EPA on February 10, 2006.

TSSWCB is currently administering 16 million in federal 319(h) funds through 63 active projects that address a wide array of agricultural and silvicultural NPS issues (Figure 1). Specific project actions include developing and implementing Watershed Protection Plans (WPPs) and Total Maximum Daily Loads (TMDLs); supporting targeted educational programs; and implementing BMP's to abate NPS pollution from dairy and poultry operations, silvicultural activities, grazing operations, and row crop operations. Quarterly reports for ongoing projects were received on January 15, 2008 and April 15, 2008. To date, project reports have been received for 100% of the projects. These reports are entered semi-annually into EPA's Grants Reporting and Tracking System.

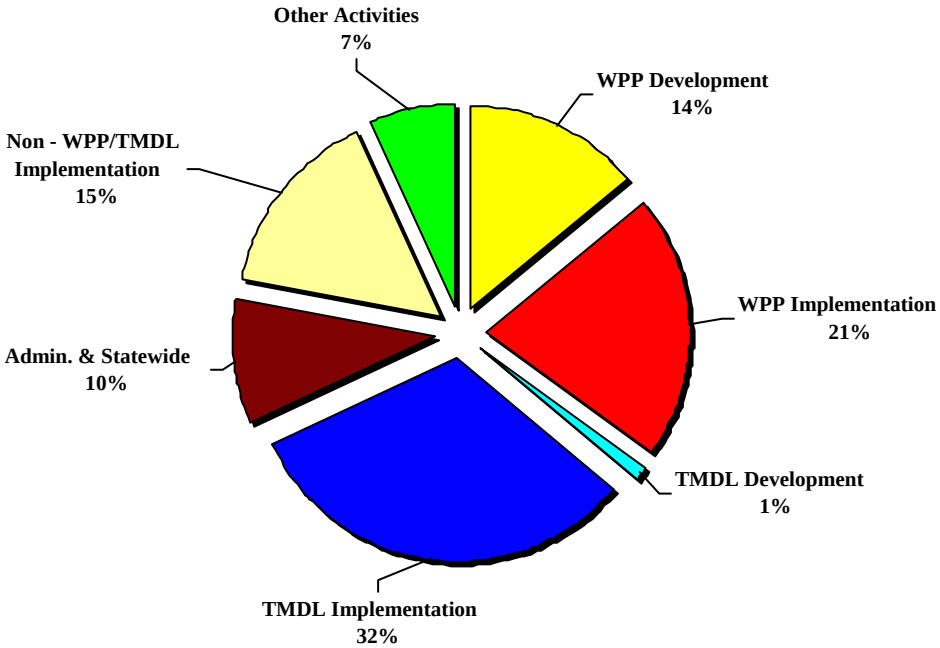


Figure 1 – TSSWCB active Clean Water Act §319(h) grants.

For more information on the TSSWCB Statewide Nonpoint Source Management Program, visit our website at http://www.tsswcb.state.tx.us/managementprogram.

Total Maximum Daily Load Program

The federal Clean Water Act requires Texas to identify lakes, rivers, streams and estuaries failing to meet or not expected to meet water quality standards and not supporting their designated uses (swimming, drinking, aquatic life, etc.). This list of impaired waterbodies is known as the *Texas 303(d) List* and must be submitted to the U.S. Environmental Protection Agency (EPA) for review and approval every two years. The *2006 Texas Water Quality Inventory and 303(d) List* was approved by EPA, as submitted by the Texas Commission on Environmental Quality (TCEQ), on February 8, 2008.

The State must then establish a Total Maximum Daily Load (TMDL) for certain waterbodies identified on the *303(d) List*. A TMDL defines the maximum amount of a pollutant that a waterbody can assimilate on a daily basis and still meet water quality standards. The pollution reduction goal set by the TMDL is necessary to restore attainment of the designated use of the impaired waterbody. The maximum amount of pollutant is determined by conducting a detailed water quality assessment that provides the information for a TMDL to allocate pollutant loads between point sources and nonpoint sources. It also takes into account a margin of safety, which reflects uncertainty and future growth.

Based on the environmental target of the TMDL, an Implementation Plan (I-Plan) is then developed that prescribes the measures necessary to mitigate anthropogenic (human-caused) sources of that pollutant in that waterbody. The I-Plan specifies limits for point source dischargers and recommends best management practices for nonpoint sources. It also lays out a schedule for implementation. Together, the TMDL and the I-Plan serve as the mechanism to reduce the pollutant, restore the full use of the waterbody and remove it from the *303(d) List*. EPA must approve the TMDL, but the I-Plan only requires State approval.

With authority as the lead agency in Texas for planning, implementing, and managing programs and practices for preventing and abating agricultural and silvicultural nonpoint source pollution, TSSWCB shares responsibility with the TCEQ for the development and implementation of TMDLs. TSSWCB is committed to funding, through federal grants and state appropriations, and collaborating with the TCEQ, on TMDL projects encompassing monitoring, assessment, modeling, planning, education and implementation (Figure 2).

On September 27, 2006, at a joint meeting, the TSSWCB and the TCEQ renewed this partnership and approved a revised *Memorandum of Agreement on Total Maximum Daily Loads, Implementation Plans, and Watershed Protection Plans*. This framework for collaboration between the two agencies describes the programmatic mechanisms employed to develop and implement TMDLs and I-Plans.

On May 24, 2007, the TSSWCB approved a *TSSWCB Policy on Total Maximum Daily Loads* which provides guidance to staff on directing state appropriations for the TMDL Program. On July 19, 2007, the TSSWCB approved an operating budget for FY2008 that allocated $1,200,494 in state appropriations to TMDL Program grants. These monies have been fully obligated and directed to projects that support 1) increased analytical infrastructure at public Bacterial Source Tracking laboratories (49%), 2) implementation of agricultural and silvicultural nonpoint source components of TMDL I-Plans (16%), and 3) development of TMDLs through the collection and analysis of water quality and land use data (35%).

TSSWCB is engaged in implementation activities that support approved I-Plans addressing agricultural or silvicultural nonpoint source load reductions described in adopted TMDLs:

- Aquilla Reservoir – Atrazine (I-Plan Approved 2002)
- Colorado River below E.V. Spence Reservoir – Salinity (I-Plan Approved 2007)
- E.V. Spence Reservoir – Salinity (I-Plan Approved 2001)
- North Bosque River – Nutrients (I-Plan Approved 2002)

TSSWCB is collaborating with stakeholders on the development of I-Plans for adopted TMDLs that contain agricultural or silvicultural nonpoint source load reductions:

- Adams and Cow Bayous – Bacteria, Dissolved Oxygen, and pH (TMDL Adopted 2007)
- Gilleland Creek – Bacteria (TMDL Adopted 2007)
- Guadalupe River above Canyon Lake – Bacteria (TMDL Adopted 2007)
- Lake O' the Pines – Dissolved Oxygen (TMDL Adopted 2006)
- Oso Bay – Bacteria (TMDL Adopted 2007)
- Upper Oyster Creek – Bacteria (TMDL Adopted 2007)

TSSWCB is actively engaged in the development of TMDLs for waterbodies impaired due to known or suspected agricultural or silvicultural nonpoint source pollution:

- Arroyo Colorado – Dissolved Oxygen
- Atascosa River – Bacteria
- Big Cypress Creek – Bacteria
- Clear Creek – Bacteria
- Copano Bay and Aransas and Mission Rivers – Bacteria
- Dickinson Bayou – Bacteria and Dissolved Oxygen
- Elm and Sandies Creeks – Bacteria and Dissolved Oxygen
- Lake Houston – Bacteria
- Leon River below Proctor Lake – Bacteria
- Little Brazos River Tributaries – Bacteria
- Lower San Antonio River – Bacteria
- Middle Texas Coast Oyster Waters – Bacteria
- Oso Creek – Bacteria
- Peach Creek – Bacteria
- Upper Oyster Creek – Dissolved Oxygen
- Upper Trinity River – Bacteria

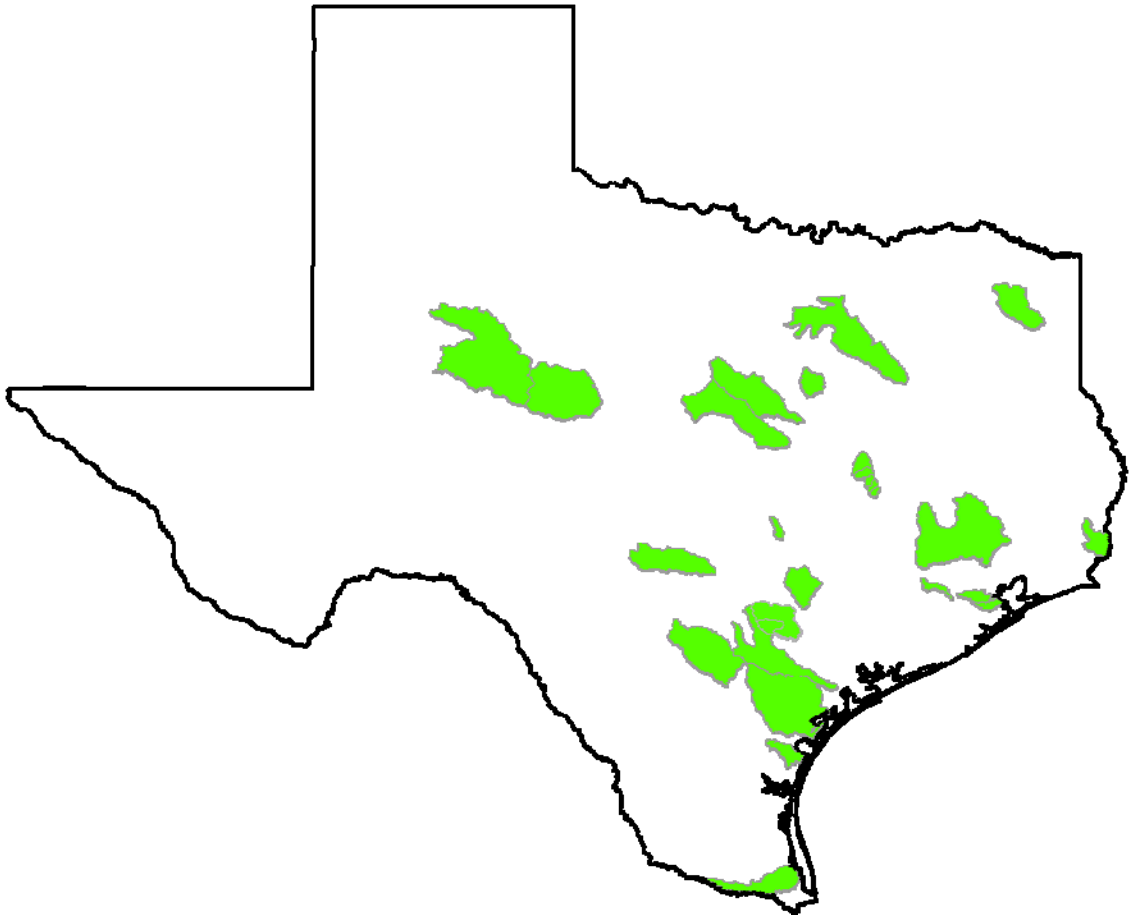


Figure 2 – Map of watersheds where TSSWCB is engaged in developing or implementing TMDLs and I-Plans.

In order to abate agricultural and silvicultural nonpoint source pollution, TMDLs and I-Plans will implement components of other TSSWCB Programs, such as the Water Quality Management Plan Program or the Water Supply Enhancement Program. Additionally, the TSSWCB Clean Water Act §319(h) Nonpoint Source Grant Program frequently serves as a funding source to implement the agricultural and silvicultural nonpoint source components of I-Plans. These programs are described in detail in other sections of this Report.

For more information on the TSSWCB Total Maximum Daily Load Program, visit our website at http://www.tsswcb.state.tx.us/tmdl.

Task Force on Bacteria Total Maximum Daily Loads

On September 27, 2006, at a joint meeting, the TSSWCB and the TCEQ established a joint technical Task Force on Bacteria TMDLs. The Task Force was charged with:

- examining approaches other states use to develop and implement bacteria TMDLs,
- making recommendations on cost-effective and time-efficient methods for developing TMDLs,
- making recommendations on effective approaches for developing I-Plans,
- evaluating the variety of models and bacterial source tracking methods available for developing TMDLs and I-Plans and recommending under what conditions certain methods are more appropriate, and

- developing a roadmap for further scientific research needed to reduce uncertainty in what we know about how bacteria behave under different water conditions in Texas.

Appointed members of the Task Force included:

- Dr. Allan Jones, Texas Water Resources Institute (chair),
- Dr. George DiGiovanni, Texas AgriLife Research,
- Dr. Larry Hauck, Texas Institute for Applied Environmental Research,
- Dr. Joanna Mott, Texas A&M University–Corpus Christi,
- Dr. Hanadi Rifai, University of Houston,
- Dr. Raghavan Srinivasan, Texas A&M University, and
- Dr. George Ward, University of Texas at Austin.

Throughout fall 2006, the Task Force completed their assessment and developed their recommendations. During the process, the Task Force received input and guidance from approximately 50 Expert Advisors with expertise on bacteria related issues from non-governmental organizations and local, state, and federal agencies.

The 4th and final draft of the Task Force Report was published June 4, 2007. All Task Force materials, including background resource materials, summaries of meetings, all drafts of the Report, and all comments received on the Report, are available at http://twri.tamu.edu/bacteriatmdl/.

The Task Force recommended the use of a Three-Tier Approach for bacteria TMDL and I-Plan development that is designed to be cost-effective, time-efficient, scientifically credible and accountable to watershed stakeholders. The Tiers move through increasingly aggressive levels of data collection and analysis in order to achieve stakeholder consensus on needed load reductions and strategies to achieve those reductions.

On June 29, 2007, at a joint meeting, the TSSWCB and the TCEQ approved the recommendations from the Task Force. The TSSWCB directed staff to work with the staff of the TCEQ to:

- incorporate the principles of the recommendations into an updated joint-agency TMDL guidance document,
- move diligently to expedite the development of bacteria TMDLs that were paused during the work of the Task Force, and
- establish a multi-agency bacteria work group to continue examining the scientific research and development needs identified in the Task Force Report.

TSSWCB staff are currently working to implement these directives. Specifically, TSSWCB staff have now completed a full draft of the revised TMDL Program Guidance that incorporates the Task Force recommendations on bacteria TMDLs. TSSWCB staff are working with TCEQ staff to resolve outstanding issues and move the revision to conclusion and publish the Guidance. TSSWCB staff have also worked with TCEQ staff to resume work on the development of TMDLs paused during the Task Force process, including holding public stakeholder meetings and collecting and analyzing data.

Watershed Protection Plan Program

Watershed Protection Plans (WPPs) are locally-driven projects that serve as a mechanism for voluntarily addressing complex water quality problems that cross multiple jurisdictions. WPPs are coordinated

frameworks for implementing prioritized and integrated water quality protection and restoration strategies driven by environmental objectives. Through the WPP process, TSSWCB encourages stakeholders to holistically address all the sources and causes of impairments and threats to both surface and ground water resources within a watershed.

WPPs serve as tools to better leverage the resources of local governments, state and federal agencies, and non-governmental organizations. WPPs integrate activities and prioritize implementation projects based upon technical merit and benefits to the community, promote a unified approach to seeking funding for implementation, and create a coordinated public communication and education program. Developed and implemented through diverse, well integrated partnerships, a WPP assures the long-term health of the watershed with strategies for protecting unimpaired waters and restoring impaired waters.

WPPs have a variety of ingredients and can take many forms. TSSWCB-sponsored WPPs are consistent with guidelines promulgated by the U.S. Environmental Protection Agency (EPA) in 2003. These guidelines describe nine elements fundamental to a potentially successful plan. The Texas Commission on Environmental Quality (TCEQ) also sponsors WPPs based on EPA's guidelines. EPA requires certain expenditures through §319(h) grants to be in accordance with a WPP.

TSSWCB provides technical and financial assistance to local stakeholder groups to develop and implement WPPs through several mechanisms (Figure 3). One, a TSSWCB Regional Watershed Coordinator facilitates the WPP process in watersheds throughout their service area. Currently, the Wharton Regional Office is piloting this method in southeast and south central Texas. Two, through the Clean Water Act §319(h) Nonpoint Source Grant Program, entities are provided financial assistance necessary to facilitate the WPP process in specific watersheds with significant agricultural or silvicultural nonpoint source pollution. Three, TSSWCB staff provide technical assistance in developing WPPs which are funded and facilitated by other entities, such as the TCEQ.

Partnerships with the Texas AgriLife Extension Service, the Texas Water Resources Institute and the TCEQ are resulting in the development of training programs for local stakeholder groups and watershed coordinators. The Texas Watershed Steward Program supports the development and implementation of WPPs by promoting a sustainable proactive approach to managing water quality at the local level and by empowering individuals to take leadership roles in the management of water resources. The Texas Watershed Planning Short Course delivers training to watershed coordinators and water professionals which is needed to ensure WPPs are adequately planned, coordinated, implemented and results properly assessed and reported.

On September 27, 2006, at a joint meeting, the TSSWCB and the TCEQ approved a revised *Memorandum of Agreement on Total Maximum Daily Loads, Implementation Plans, and Watershed Protection Plans*. This framework for collaboration between the two agencies describes the programmatic mechanisms employed to develop and implement WPPs.

WPP development projects currently sponsored by TSSWCB (red in Figure 3) have significant agricultural or silvicultural nonpoint source pollution components and are all funded through Clean Water Act §319(h) Nonpoint Source Grants:

- Buck Creek – Texas AgriLife Research and Texas Water Resources Institute
- Concho River – Upper Colorado River Authority
- Lake Granger – Brazos River Authority and Texas AgriLife Research
- Lampasas River – Texas AgriLife Research

- Leon River – Brazos River Authority
- Pecos River – Texas AgriLife Extension Service and Texas Water Resources Institute
- Plum Creek –Texas AgriLife Extension Service

While WPP development projects sponsored by the TCEQ (purple in Figure 3) have significant water quality issues related to urban nonpoint source pollution or wastewater treatment, most, to varying degrees, have agricultural or silvicultural nonpoint source pollution components:

- Arroyo Colorado – Texas Water Resources Institute
- Bastrop Bayou – Houston-Galveston Area Council
- Brady Creek – Upper Colorado River Authority
- Caddo Lake – Northeast Texas Municipal Water District
- Cypress Creek – River Systems Institute at Texas State University
- Dickinson Bayou – Texas Sea Grant
- Lake Granbury – Brazos River Authority and Texas Water Resources Institute
- Hickory Creek – City of Denton
- Upper San Antonio River – San Antonio River Authority

There are several other watershed planning projects across the state which are funded and sponsored by entities and agencies other than the TSSWCB or the TCEQ (orange in Figure 3). These third-party WPPs may or may not adequately satisfy EPA's nine elements; although, those that do, are eligible to receive Clean Water Act 319(h) NPS Grants from the TSSWCB to support implementation of the WPP:

- Armand Bayou – Texas Sea Grant and Trust for Public Land
- Barton Springs – Barton Springs/Edwards Aquifer Conservation District and City of Dripping Springs
- Benbrook Lake – Texas Water Resources Institute and Tarrant Regional Water District
- Lower and Middle Brazos River – Brazos River Authority
- Bridgeport Reservoir – Texas Water Resources Institute and Tarrant Regional Water District
- Caney Creek – Caney Creek Conservation Foundation
- Cedar Creek Reservoir – Texas Water Resources Institute and Tarrant Regional Water District
- Upper Colorado River – Colorado River Municipal Water District
- Chocolate Bayou – Galveston Bay Estuary Program
- Eagle Mountain Reservoir – Texas Water Resources Institute and Tarrant Regional Water District
- Nueces River – U.S. Army Corps of Engineers
- Richland-Chambers Reservoir – Texas Water Resources Institute and Tarrant Regional Water District
- San Bernard River – Friends of the River San Bernard
- Stillhouse Hollow Lake – Lake Stillhouse Hollow Cleanwater Steering Committee, Inc.

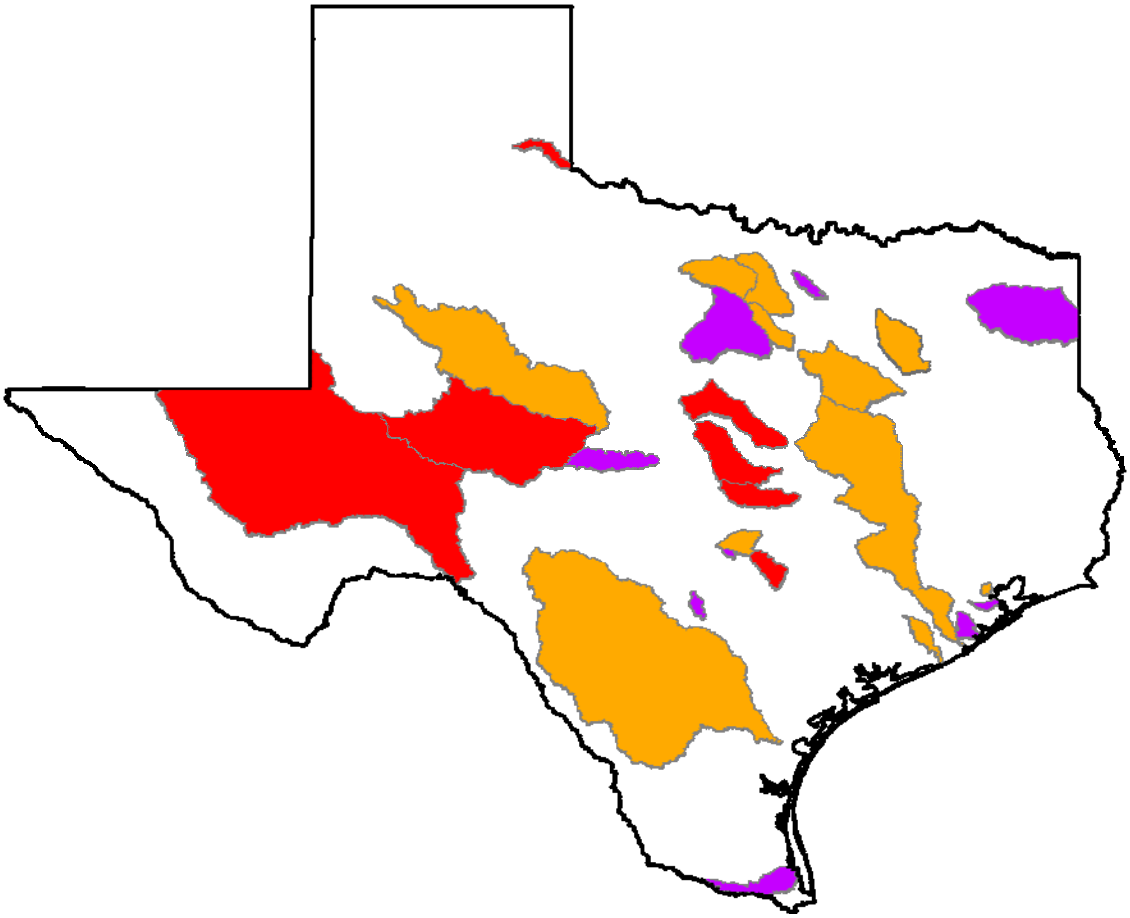


Figure 3 – Map of watersheds where TSSWCB is engaged in developing or implementing WPPs.

In order to abate agricultural and silvicultural nonpoint pollution, WPPs will implement components of other TSSWCB Programs, such as the Water Quality Management Plan Program or the Water Supply Enhancement Program. Additionally, the TSSWCB Clean Water Act §319(h) Nonpoint Source Grant Program serves as a funding source to implement the agricultural and silvicultural nonpoint source components of WPPs. These programs are described in detail in other sections of this Report.

For more information on the TSSWCB Watershed Protection Plan Program, visit our website at http://www.tsswcb.state.tx.us/wpp.

Water Quality Management Plan Program

In 1993, the Texas Legislature passed Senate Bill 503 that directed the TSSWCB to implement Water Quality Management Plans (WQMPs) in Texas. The agency has implemented more than 6000 WQMPs since the inception of the program.

The WQMP Program is administered from five Regional Offices around the state. A poultry WQMP office will open in Nacogdoches in January 2005. The Regional Offices are:

Dublin Regional Office
Hale Center Regional Office

Harlingen Regional Office
Mount Pleasant Regional Office
Wharton Regional Office
Poultry Program Office (Nacogdoches)

A WQMP is a site-specific conservation plan developed through (and approved by) SWCDs for agricultural or silvicultural lands. The plan includes appropriate land treatment practices, production practices, management measures, technologies or combinations thereof. The purpose of WQMPs is to achieve a level of pollution prevention or abatement determined by the TSSWCB, in consultation with local soil and water conservation districts, that is consistent with state water quality standards.

The TSSWCB selected requirements for a WQMP based on the criteria outlined in the *Field Office Technical Guide (FOTG)*, a publication of the United States Department of Agriculture's Natural Resources Conservation Service (NRCS).

Nutrient management must be included if nutrients are applied. If an animal feeding operation is involved (such as an unpermitted dairy), a WQMP will be planned with practices that individually or in combination with other practices will properly manage animal wastes. Waste utilization will be considered when agricultural wastes are applied. These WQMPs also have subcomponents for irrigation waters, erosion control, and are flexible enough to cater to a wide range of operating systems.

Agricultural and forestry landowners may enter into these cooperative agreements with their local district to control nonpoint source pollution from their operations. While the decision to develop a plan is voluntary, landowners have many reasons to do so. These plans provide for landowners to use best management practices in their operations to protect their most precious agricultural resources by controlling erosion, conserving water, and protecting water quality. In addition, certified plans have the same legal status as Texas Commission on Environmental Quality (TCEQ) point source pollution permits, without having to go through that agency's regulatory process. Landowners may also receive financial incentives to help pay for implementing these plans.

It should be noted that an animal feeding operation that is required by law to operate within the confines of a water quality permit issued by the TCEQ may not participate in the TSSWCB program.

Water Quality Management Plans are especially useful for animal feeding operations. Depending on their size, animal feeding operations may be regulated by TCEQ as a point source or are unregulated and eligible for the TSSWCB's voluntary program. Generally, these feeding operations are classified according to the number of animals they have, calculated as "animal units"; however, TECQ has adopted rules that provide if you have or exceed a certain number of animals, you will be regulated. Animal feeding operations with more than the number of animals listed in TCEQ rules must apply for a permit. Most animal feeding operations in Texas are not large enough to require a permit, which makes this program critical to protecting Texas' water quality.

In developing the Water Quality Management Plan, the TSSWCB, SWCDs, and the USDA Natural Resources Conservation Service (NRCS) provide technical assistance to help the landowner meet the criteria of the plan. A plan establishes practices and installations on the farm that adhere to best management practices specific for that area. The various installations that a plan calls for depend on the operation. A farm may include a combination of cropland, dairy cows, poultry, hogs or cattle.

These plans may also include erosion control measures such as terraces or grass waterways; or they may address nutrient management to help landowners avoid over-fertilizing their land, or over-applying animal waste. Although a plan will take into consideration each farm's unique components, all WQMPs generally attempt to control erosion, conserve water, and protect water quality.

Upon TSSWCB certification of a WQMP, a landowner may apply for a financial incentive that will help pay for implementing the plan. Local districts have varying rates for sharing the cost of plan implementation; however cost-share may not exceed 75% with a maximum $10,000 grant limit per plan. Landowners receiving financial incentive have approximately are now given a specific time period to implement conservation practices, otherwise, their applications are cancelled automatically and the funds are reallocated to another plan. This approach hopefully will reduce the amount of lapsed funds.

The TSSWCB allocates money to local districts for financial incentives based on whether the area has impaired water bodies as determined by TCEQ, or if the TSSWCB had previously designated it as a priority. Most of these financial incentives were appropriated from General Revenue funds. Some plans received financial incentives from federal funds. State appropriations provided to local districts in FY08 amounted to $2,171,740.00 to carry out a WQMP cost-share program in their district.

In addition to certifying WQMPs to ensure that they help abate nonpoint source pollution, the TSSWCB monitors WQMPs to ensure they are properly implemented. Each year, the TSSWCB conducts status reviews on a minimum of 10% of the plans. Additional technical assistance may be offered to a landowner when a WQMP is found noncompliant. In the unlikely case that the landowner does not achieve compliance with the WQMP, the TSSWCB may decertify the plan.

During FY03, the WQMP Program was administered from the TSSWCB office in Temple. The staff reductions in the FY04 budget made it necessary for the program to be reorganized and the Regional Offices activities are now coordinated through the Harlingen Regional Office. Additionally, plan certification authority was shifted from the Temple headquarters to each regional office. This change is already expediting the certification process and reducing postage expenditures, while maintaining the integrity and standards of the program.

The last adjustment involved the complaint process, which was also administered out of the headquarters office during FY03. Headquarters office no longer has an individual to do complaint inspections and all complaints are investigated from the appropriate Regional Office.

Current Status

Through the end of the third quarter of FY-08, a total of 626 water quality management plans have been certified by the State Board. The period for obligating cost-share funds ended on April 30, 2008. The State Board approved supplemental requests for cost-share funds at their May 2008 meeting. Funds not allocated at the May meeting were transferred to the Statewide Fund. All requests from priority districts for 5% administrative funds were processed during the month of May.

During June and July, 2008 districts will be making every effort to minimize the amount of lapsed funds from the FY-06 funding cycle which expires on August 15, 2008.

Poultry Water Quality Management Plan Initiative

Background

In 1994, the Texas State Soil and Water Conservation Board (TSSWCB) began assisting poultry operations with the establishment of the Northeast Texas - Senate Bill 503 Cost-share Area. Since 1994, over $300,000 of WQMP Program funding has been provided annually to six soil and water conservation districts (SWCDs) in Northeast Texas to address animal feeding operations (AFOs). Shelby SWCD began receiving SB 503 funds in FY 2005 and the Nacogdoches SWCD began receiving SB 503 funds in FY 2007.

In 1995, the TSSWCB initiated three federal Clean Water Act, §319(h) projects to demonstrate composting as a means for dead bird disposal, buffer strips, and proper land application of poultry litter. In 1996, the TSSWCB expanded its efforts by initiating a composting and marketing project. This effort to promote the installation of composters and other means of mortality management on poultry farms resulted in accelerated WQMP development.

In 1997, the Texas Legislature passed Senate Bill 1910, which required all poultry farms to have a TCEQ-approved method of dead bird disposal. The law took effect in March 1998. However, the rules were not adopted and did not take effect until fall 1999. It was during this time that requests for poultry WQMPs significantly increased due to pursuit of cost-share for mandated mortality management. This activity intensified the TSSWCB's poultry initiative.

In 1999, in response to water quality concerns and the initiation of TMDL development in the Big Cypress/Lake O' the Pines watershed, the TSSWCB began using §319 funds for cost-share in the area in addition to the Senate Bill 503 cost-share funds already directed to the watershed. The current implementation process of the TMDL has shown that the WQMP program has resulted in reduced nutrient loadings in the watershed. Due to rising concerns in nearby watersheds, the TSSWCB also included the Sam Rayburn and Toledo Bend Reservoir watersheds in its initiative in 1999. The TSSWCB expanded the poultry initiative again in 2001 to the Gonzales area.

Beginning in 2001, seven soil and water conservation district (SWCD) technicians were employed under federal Clean Water Act §319 contracts to develop WQMPs in poultry producing areas. Six of those contracts expired in 2004 and the seventh expired in 2005. An eighth §319 district technician was hired in 2003 with the Shelby SWCD and that contract expired in August 2007. Two more positions were hired by local SWCDs in FY 2007 to help with WQMP development for the Sanderson Farms expansion in the Waco area. Those contracts have also expired.

In 2001, the 77th Legislature passed Senate Bill 1339, which requires all poultry facilities in Texas to operate in accordance with a WQMP certified by the TSSWCB. The review and certification process assures the plan includes appropriate practices, management measures, and schedules of implementation.

This law provided for a staggered-schedule of deadlines by which each producer, depending on their initial date of operation, must have requested the development of a WQMP from their soil and water conservation district. Any commercial poultry facility constructed after January 1, 2002 is required to have a WQMP prior to the receipt of any birds. All other commercial poultry facilities were required to have a WQMP no later than December 31, 2007.

In October 2007, two technicians were hired by local Soil and Water Conservation Districts, with one expiring in August 2008 and the other in August 2009. Because of expiring contracts and difficulty retaining temporary contract SWCD staff, TSSWCB submitted a 2008-2009 Legislative Appropriations Request for 4 additional FTEs to replace the expiring SWCD technician positions, so as to continue technical assistance for poultry producers in these areas. The budget request was approved by the 80th Texas Legislature and took effect September 1, 2007. The four new positions are located in the four most heavily poultry populated areas of the state which are Shelby, Nacogdoches, Gonzales, and Leon Counties and they also serve the poultry producers in surrounding counties. The 4 new positions are part of the TSSWCB Poultry Program reporting to the Nacogdoches Poultry Office.

Due to changes made by the U.S. Environmental Protection Agency (EPA) to the federal regulations for concentrated animal feeding operations (CAFOs), the Texas Commission on Environmental Quality (TCEQ) adopted a rule change in 2004 that required dry-litter poultry operations larger than 125,000 broilers or pullets, 82,000 layers or breeders, or 55,000 turkeys to operate under a water quality permit. However, due to a federal court decision by the U.S. 2nd Circuit Court of Appeals in February 2005, the EPA issued a notice that the date by which a permit and a Nutrient Management Plan must be obtained was extended to July 31, 2007 and EPA has since proposed that date be extended to February 27, 2009. Also in compliance with the court decision, the EPA released additional proposed rule changes in June 2006. Under the proposed new rule, farms that do not actually discharge wastes to waters of the U.S. are not required to apply for permit coverage, thereby eliminating the need for dry-litter operations to apply. In advance of EPA's final rule, TCEQ made a rule change in September 2006 to allow CAFO size dry-litter poultry farms an exemption to permitting if they obtain and follow a WQMP certified by TSSWCB. A supplemental guidance document is available from the TSSWCB for poultry producers that provides requirements in addition to the WQMP that are necessary to stay in compliance with the CAFO rules. Meetings were held in seven different poultry producing locations in January, February, and June 2008 to inform poultry producers of those additional requirements.

Current Issues

Currently, the TSSWCB is aware of 1379 total dry-litter poultry farms, of which 461 (33%) are defined as Concentrated Animal Feeding Operations (CAFO). However, there is an ongoing challenge of identifying new poultry farms continually being constructed and put into production, learning of farms that have changed bird placement numbers, and locating other poultry farms not yet identified. Sanderson Farms has nearly completed its new contract farms in the Waco area to supply a new processing plant that began operation in August 2007. TSSWCB staff has developed or is currently developing WQMPs for all of the known proposed new farms

In FY 2008, staff in the Poultry WQMP Program continues to develop, update, and review Water Quality Management Plans for poultry producers and provide assistance with all issues related to the Poultry WQMP Program. The Program Supervisor and three Natural Resource Specialists staff the Nacogdoches Poultry Office. There are also three Natural Resource Specialists located in Center, Centerville, and Gonzales. In addition, two new technicians were hired by local Soil & Water Conservation Districts (SWCD) in Nacogdoches and Shelby Counties to assist the Poultry WQMP Program in the Nacogdoches area. Approximately 597 (43%) of the estimated 1379 dry-litter poultry farms in Texas are located in an eight-county area surrounding Nacogdoches. About 130 farms in the 8-county area are large enough to be defined as Concentrated Animal Feeding Operations (CAFO), which require annual inspections conducted by TSSWCB staff which could result in needed revisions to their WQMP. In addition, the

other existing WQMPs are reviewed regularly for needed updates and revisions. The office also assists other SWCDs in the state with poultry WQMP development and revision as needed.

Comprehensive Nutrient Management Plan Program

The TSSWCB Comprehensive Nutrient Management Plan (CNMP) Program was developed in response to a control measure recommended in the TMDL *I-Plan for Soluble Reactive Phosphorus in the North Bosque River Watershed*. The I-Plan recommended that dairy producers in the watershed voluntarily develop and implement a CNMP; however, the TCEQ adopted a rule that made the recommendation a requirement. The CNMP Program is confined to the North Bosque River and Leon River watersheds by TSSWCB rule.

A CNMP is a resource management plan containing a grouping of conservation practices and management activities which, when combined into a conservation system, will help ensure that both agricultural production goals and natural resource concerns dealing with nutrient and organic by-products and their adverse impacts on water quality are achieved. A CNMP incorporates practices to utilize animal manure and organic by-products as a beneficial resource. The TSSWCB selected requirements for a CNMP based on the TCEQ rules and regulations required for permitted and unpermitted animal feeding operations and criteria outlined in the Field Office Technical Guide (FOTG), a publication of the United States Department of Agriculture's Natural Resources Conservation Service (NRCS). The FOTG represents the best available technology and is already tailored to meet the needs of soil and water conservation districts all over the nation. To be certified by the TSSWCB, the local SWCD, the producer, and the local NRCS Field Office must approve a CNMP.

As of June 30, 2008 the TSSWCB has certified 85 of the 87 CNMPs that have been submitted for approval. The TSSWCB, NRCS, and the Texas Association of Dairymen have held numerous meetings with dairy producers and technical service providers since January 2006 in an effort to facilitate development and submittal of CNMPs.

Statewide Bacterial Water Quality Impairment Reduction Initiative

. According to the *2006 Texas Water Quality Inventory and 303(d) List*, three hundred ten (310) waterbodies are impaired because they do not meet surface water quality standards for bacteria established to protect contact recreation use (in freshwater or saltwater) and/or oyster water use. The magnitude of bacteria impairments in Texas is evident when compared to all other types of water quality impairments. These bacteria impairments represent over 55% of all impairments on the *303(d) List*.

As the lead agency in Texas responsible for the prevention, abatement, and management of nonpoint source pollution from agricultural and/or silvicultural activities, the TSSWCB plays a critical role in addressing water quality impairments for bacteria. Many of these impairments have been attributed, at least in part, to grazing livestock or animal feeding operations.

In order to address these bacteria impairments, TSSWCB has continued to strengthen partnerships with industry commodity organizations including the Texas Farm Bureau, the Texas and Southwestern Cattle Raisers Association, the Independent Cattlemen's Association of Texas, the Texas Poultry Federation, the Texas Association of Dairymen and the Texas Pork Producers Association. Regular communication

includes notification of public stakeholder meetings for Total Maximum Daily Load or Watershed Protection Plan projects that will impact livestock operations.

Working with the USDA Natural Resources Conservation Service and the State Technical Committee, an Environmental Quality Incentives Program (EQIP) State Resource Concern for Water Quality in South Central Texas was established to provide livestock producers in the Peach Creek, Elm and Sandies Creeks, Atascosa River and Lower San Antonio River watersheds financial assistance in implementing best management practices (BMPs) to prevent and abate NPS pollution from their operations which may be contributing to the bacterial water quality impairment in those watersheds. This financial assistance to livestock producers supports implementation of TMDLs in these watersheds.

The magnitude of water quality impairments from excessive bacteria in Texas has resulted in a marked increase in the number of bacteria-related education, assessment, demonstration, and implementation projects initiated and directed by the TSSWCB. Most of these projects are funded through the agency's Clean Water Act §319(h) Nonpoint Source Grant Program, but the agency is utilizing other funding mechanisms such as the USDA NRCS Grassland Reserve Program. Nearly two dozen projects are currently focused on the abatement of bacterial NPS pollution.

For more information on the TSSWCB Statewide Bacterial Water Quality Impairment Reduction Initiative, visit our website at http://www.tsswcb.state.tx.us/managementprogram/initiatives/bacteria.

Coastal Management Program

Background

The Texas Coastal Management Program (CMP) was created to coordinate state, local, and federal programs for the management of Texas coastal resources. The program brings in federal Coastal Zone Management Act (CZMA) funds to Texas state and local entities to implement projects and program activities for a wide variety of purposes. The Coastal Coordination Council (CCC) administers the CMP and is chaired by the Commissioner of the GLO. It comprises the chair or appointed representatives from the TPWD, the TCEQ, the TWDB, TxDOT, a member of the Texas State Soil and Water Conservation Board, a member of the RRC, the director of the Texas A&M University Sea Grant Program and four gubernatorial appointees. These members are selected to provide fair representation for all aspects concerning coastal issues.

The Council is charged with adopting uniform goals and policies to guide decision-making by all entities regulating or managing natural resource use within the Texas coastal area. The Council reviews significant actions taken or authorized by state agencies and subdivisions that may adversely affect coastal natural resources to determine their consistency with the CMP goals and policies. In addition, the Council oversees the CMP Grants Program and the Small Business and Individual Permitting Assistance Program.

The Coastal Zone Act Reauthorization Amendments (CZARA), Section 6217, requires each state with an approved coastal zone management program to develop a federally approvable program to control coastal nonpoint source pollution. The Texas CCC appointed a Coastal Nonpoint Source Pollution Control Program workgroup to develop this document. The National Oceanic and Atmospheric Administration and the U.S. Environmental Protection Agency jointly administer the program. In Texas, two agencies

hold primary responsibility for the program's development and implementation: the Texas Commission on Environmental Quality and the TSSWCB.

Section 6217 calls for implementation of management measures (§6217(g) measures or (g) measures) that will control significant nonpoint sources of pollution to coastal waters. Six source categories are addressed by these measures: agriculture, forestry, urban and developing areas, marinas, wetland/riparian areas, and hydro modification. States can use voluntary approaches combined with existing state authorities to achieve implementation of management measures. However, if the voluntary mechanisms are not effective, states must have backup enforcement authorities in place to ensure that management measures are implemented.

Texas submitted the Texas Coastal Nonpoint Source Pollution Control Program to EPA and NOAA in December 1998. In October 2000, Texas submitted the Texas Coastal NPS Control Program 15-year Program Strategy and FY 2001-2005 Implementation Plan.

Final findings were issued by NOAA/EPA in July 2003, which contained conditional approval of the program. The agricultural and silvicultural portions of the program were approved without conditions.

Current Status

The TSSWCB is responsible for implementing the agricultural and silvicultural management measures of the program. The mechanisms we have for this are the State's cost-share program for implementing Water Quality Management Plans on farms and ranches through local soil and water conservation districts (SWCD), the State's Total Maximum Daily Load (TMDL) program, and the State's Watershed Protection Plan (WPP) program.

For over eight years, more than $300,000 of state funds has been spent annually in the coastal zone districts to provide cost-share to implement 1858 Water Quality Management Plans.

In addition, the TSSWCB works with TCEQ and other partners to implement WPPs and TMDLS in the coastal zone, as well as other areas of the State in watersheds with agricultural or silvicultural impairments or water quality concerns.

WPPs being planned or implemented in the Coastal Zone include: Arroyo Colorado, Bastrop Bayou, and Dickinson Bayou,

TSSWCB is involved with the development and imlementation of a number of TMDLs in the Coastal Zone: Adams and Cow Bayous, Clear Creek, Copano Bay and Aransas and Mission Rivers, Dickinson Bayou, Oso Bay, Oso Creek, and Upper Oyster Creek.

Implementation of the silvicultural management measures in the coastal zone is through a CWA §319 grant from the TSSWCB to the Texas Forest Service.

Information Technology

Protecting Regional Office Data With Encrypted Offsite Backups

Continuing agency-wide improvements in this area, the TSSWCB began deploying automated systems at its regional offices that allow for the encryption and offsite storage of critical data.

This system provides backups of office file servers and selected desktop PC data, which is backed up to an enclosed hard drive. This storage medium allows for ease of transportation offsite and provides a redundancy and level of data protection previously not available to agency regional offices.

The data on the backup media is encrypted using strong encryption (256-bit Advanced Encryption Standard) mitigating the dangers of lost or stolen media.

This project was implemented using commodity hardware and open source software, resulting in no cost to the agency for software procurement or maintenance and minimal cost for the required hardware.

HQ Data Backup System Updated

A new data backup system at the TSSWCB headquarters office was designed and implemented during the first half of 2008 to provide improvements in storage capacity, ease of document retrieval and enhanced security.

The new system uses off-the-shelf hardware components combined with carefully selected open source software to provide a disk-based backup solution that offers a substantial increase in data storage capacity when compared to the agency's previous tape backup system. The increased storage size has allowed the agency to better protect a growing amount of digitally stored information and to better provide for future growth in data protection needs.

Like the backup systems deployed at regional office, this system protects backup data with strong encryption, using industry standard 256-bit AES encryption.

T0CA Upgrade Work To Provide Enhanced Data Availability

June found staff beginning work on an important upgrade to T0CA, the agency's internal, web-based system for tracking and reporting on water quality management plan program data.

The enhancements this work is set to provide include new areas of data recording and reporting capabilities requested by management. Development is being undertaken to provide a user-friendly, stable and secure addition to T0CA, which has been running in production at the agency over the last two years.

As with the original system, the additions to T0CA are being made using open source software components, at zero cost to the agency for software purchases, licensing or maintenance.

Network Upgrades Bring New Services To San Angelo and Nacogdoches Offices

The agency recently rolled out new servers at its San Angelo brush control project office and its Nacogdoches poultry program office to provide new data services for these locations.

New capabilities resulting from this project include a range of previously unavailable services for those offices and will serve to help IT staff better provide for the needs of staff in these locations.

Important service additions include: improved remote access to employee desktop PCs, the ability to provide for upgrades to other network components such as wireless routers, the ability to provide VPN services on request and the ability to implement improved automated backup systems of networked data stores.

An additional important enhancement provided by this work was an upgrade to network perimeter security through an improved firewalling system. The firewall systems used by the TSSWCB have been vetted through Texas Department of Information Resources (DIR) controlled penetration tests and have proven capable of protecting internal agency networks from outside threats.

The new systems were purchased from DIR-approved vendors and were composed of commodity components powered by open source software, resulting in minimal cost to the agency.

Public Information /Education Report

General Overview

The purpose of the public information/education program is to provide leadership and coordination of information/education programs relating to the agency and district programs, services, operations and resources. The TSSWCB prepares and disseminates public information relative to the agency and district functions, programs, events and accomplishments for the public and to farmers and ranchers. TSSWCB staff coordinates seminars, conferences, workshops, displays at trade shows and training for district directors and district employees, conservation professionals, youth groups and other entities. Staff provides guidance to districts with their own individual information/education programs as well as regional and state information/education programs initiated by districts. Staff prepares and disseminates press releases, news stories and printed promotional products. The TSSWCB monitors the use of the publications and use of information. Staff represents the agency as needed with various information/education groups and entities. The TSSWCB has a cooperative agreement with the Association of Texas Soil and Water Conservation Districts to provide assistance and help coordinate district involvement and participation with Association's Information/Education Committee and its programs.

2008 Summer Teacher Workshops

Several teacher workshops are held each summer for teachers interested in conservation and natural resource issues. The workshops are held in various parts of the state in cooperation with the TSSWCB. The State Board For Educator Certification to the Texas Education Agency approves the content of these workshops, sponsored by the TSSWCB. As an approved Environmental Education Professional

Development Provider teachers are able to get credit hours toward their required continuing education units (CEUs), while experiencing nature and the outdoors.

Pedernales SWCD hosted a Teachers Workshop near Blanco, Texas at the Franklin Family Ranch on June 24-26, 2008. Topics included soils, water cycle, plants in the Texas hill country, wildlife biology, prescribed burning and other related topics.

2008 Texas Conservation Awards Program

Each year, the Texas State Soil and Water Conservation Board and the Association of Texas Soil and Water Conservation Districts co-sponsor the Texas Conservation Awards Program to recognize and honor those who dedicate themselves and their talents to the conservation and wise use of renewable natural resources. The 2008 Awards Program, wrapped up in May, marked the 30th year of this jointly sponsored program. The 2009 Awards Program will begin in September.

Local districts select their outstanding individuals as winners and submit them by mid-February each year for regional judging. Those selected as regional winners are honored each May at regional Awards Banquets. From these regional winners, a state winner is selected for the Outstanding Conservation Districts, Outstanding Conservation Teacher, Poster Contest, and the Essay Contest. These individuals are invited to the Annual State Meeting for recognition.

The conservation awards program provides competition and incentives to expand and improve conservation efforts, resource development, and increase the wise utilization of renewable natural resources. As a result, soil and water conservation districts, and both rural and urban citizens of Texas are benefited.

Soil and water conservation districts may enter their local recognition honorees in any of 10 categories (East Texas has an additional category of Forestry Conservationist), depending on appropriateness to the category description. For the youth of the district, there is also a poster and essay contest. The categories and a brief description of each are:

Outstanding Conservation District

Awarded to the winning soil and water conservation district in each area for the most outstanding program during the past fiscal year.

Resident Conservation Rancher

Awarded to the outstanding resident conservation rancher in each area. They must be a resident of the district, perform ranching activities within the district and be a cooperator with the district from which the entry was submitted. The rancher may have other business or professional interests.

Resident Conservation Farmer

Awarded to the outstanding resident conservation farmer in each area. They must be a resident of the district, perform farming activities within the district and be a cooperator with the district from which the entry was submitted. The farmer may have other business or professional interests.

Absentee Conservation Farmer/Rancher

Awarded to the outstanding absentee conservation farmer or rancher in each area. They must reside outside the district, but operate farming or ranching activities within the district and be a cooperator with the district from which the entry was submitted. The person may have other business or professional interests.

Water Quality Management Plan

Awarded to the outstanding Water Quality Management Plan recipient in each area. They must be a district cooperator who has a district approved Water Quality Management Plan and has incorporated water quality into their farming or ranching activities and soil and water conservation work.

Essay Contest –Two Categories (Those 13 and under and those 14 to 18 years of age)

Essays (topic: "Celebrate Conservation") are to be submitted to local soil and water conservation districts for local judging. Each local district will judge the entries and submit three essays to the TSSWCB for competition on the area level. Plaques will be awarded to 1st, 2nd and 3rd place winners on the area level and state winners will be selected from the area winners. This contest is open to students, in two categories, one for those ages 13 and under, and the other category for those ages 14 to 18 years of age and does not jeopardize Texas University Interscholastic League eligibility.

Poster Contest

Posters should address one of the following subjects: "Food for the Future" or "The Living Soil". Posters shall be submitted to local soil and water conservation districts for local judging. Each local district will judge the entries and submit three posters to the TSSWCB for competition on the area level. Plaques will be awarded to the 1st, 2nd and 3rd place winners on the area level and state winners will be selected from the area winners. This contest is open to students, 12 years and under, and does not jeopardize Texas University Interscholastic League eligibility.

Business/Professional Individual

Awarded to the outstanding man or woman in the business community who has rendered the most unselfish conservation service in each area. Representatives of the news media (radio, television, newspaper, magazines, etc) who contribute to or provide support for conservation shall also be considered eligible for this award. (This award is not for individual conservation practices or individuals who, because of employment, assist with or augment the work of the soil and water conservation district.)

Conservation Teacher

Awarded to the outstanding teacher of conservation in schools in each area. Teachers of all grade levels are eligible for this award.

Wildlife Conservationist

Awarded to the outstanding wildlife conservationist in each area. They must be a district cooperator who has incorporated wildlife conservation into their farming and ranching activities.

Conservation Homemaker

Awarded to the outstanding conservation homemaker in each area. The homemaker and or family must own or operate a farm or ranch, be a district cooperator and have knowledge of the conservation programs being implemented.

Conservation District Employee

Awarded to the outstanding soil and water conservation district employee who exhibits a degree of knowledge, skill, ability, and leadership that clearly results in superior job performance far above the basic requirements of the position.

Forestry Conservationist (Area IV only)

Awarded to the outstanding forestry conservationist for the most outstanding farm forestry conservation program in the commercial forest areas of Texas. They must be a district cooperator or an individual who has implemented conservation practices on their land and has done missionary work for conservation and the district program.

Soil & Water Stewardship Public Speaking Contest

The Soil & Water Stewardship Public Speaking Contest is open to high school FFA students interested in conservation. The contest is aimed at broadening students' interest and knowledge of conservation and how individuals must depend on and take care of the world around them for survival. The contest is coordinated through the Texas FFA, with contests at the local, area and state level. Local winners compete in the 10 state FFA areas and those winners compete for the state title. The theme of the 2008 contest is “Conservation’s Power.”

To prepare for the contest, students were to consult with their Agriculture Science teacher and work with their local soil and water conservation district. Students are encouraged to visit with their local SWCD to find out more about conservation practices in their area.

This project is a partnership between the Texas FFA, the Vocational Agriculture Teacher's Association of Texas, The Texas State Soil and Water Conservation Board, and the Association of Texas Soil and Water Conservation Districts. The State Winner of the Soil and Water Stewardship Public Speaking Contest is invited to attend the Annual State Meeting each year and asked to deliver their winning address.

Wildlife Alliance for Youth

The Wildlife Alliance for Youth (WAY) contests offer opportunities at the local district level for 4-H and FFA students to demonstrate their knowledge of the outdoors on wildlife habitat and management,

wildlife laws, sportsmanship and other factual information on wildlife. The program offers scholarships to contest winners. It is a powerful tool for students to become involved in conservation and obtain an appreciation for wildlife.

Agriculture Science students, who compete in the WAY Contest, first acquire the foundational knowledge and skills for this event through the Agscience 381 - Wildlife and Recreation Curriculum. The WAY contests address the following nine subject areas in Wildlife and Recreation Management: Wildlife Plant Identification; Wildlife Plant Preferences; Wildlife Biological Facts; Wildlife Habitat; Habitat Management; Game Laws; Hunter and Boater Safety; Compass and Pacing; and Identification Techniques. FFA and 4-H youth should have an understanding of these subject areas before they compete.

The WAY contests are held in the five Texas State Soil and Water Conservation Board areas. Area IV (East Texas) holds their contest in the fall. Area V (North Central), Area I (Panhandle), Area II (West Texas) and Area III (South Texas) all hold their contests in the spring. Each team is certified to the area level by their local SWCD. The WAY State Contest is held each year in one of the geographical areas of the state. Approximately 2,400 youth participate in the statewide competition.

The TSSWCB is the lead agency in sponsoring and organizing the contests. The Association of Texas Soil and Water Conservation Districts, USDA- Natural Resources Conservation Service, Texas Parks and Wildlife Commission, Cooperative Extension service, and the Texas Education Agency, along with local soil and water conservation districts (SWCD), all partner in the success of the youth organization.

State Woodland Clinic and Contest

The Texas State Woodland Clinic and Contest is held annually in the month of April. It is a joint effort between local soil and water conservation districts, Stephen F. Austin University School of Forestry and the NRCS-USDA.

The contest is an opportunity for 4-H and FFA youth to demonstrate their expertise in different aspects of forestry management and skills in identification of needed practices and management techniques. Competition is between teams composed of four members representing either a 4-H Club or a FFA Chapter. Prior to the state contest several local districts conduct contests for 4-H Clubs and FFA Chapters within their district and the surrounding area.

The contest began in the late 1950s and was initiated by local SWCDs and timber industry personnel to develop forestry and woodland curriculum in schools in the commercial timber area of the state (East Texas Piney Woods). The clinic and contest have experienced widespread popularity and now has participation from outside of the commercial timber area on a regular basis. The state participation level for teams averages around 55 teams per year, with the vast majority of teams being composed of FFA Chapters. Winners at the state level are eligible to participate in the four states regional woodland contest held each May in one of four states. Texas, Louisiana, Arkansas and Oklahoma host the regional contest on a rotational basis.

Regional Woodland Contest

The four states regional woodland contest is sponsored by soil and water conservation districts in each of the four states with program and technical support provided by USDA-NRCS and Resource Conservation

and Development (RC&D), state organizations and industry personnel. The soil and water conservation districts in Texas hosted the first four states or southern regional woodland contest in 1984.

Each state is allowed to send a maximum of six teams to the regional contest. Each state has a competition that determines the six teams from that state that may enter in the regional contest. Those teams may be composed of individuals representing either a 4-H Club or an FFA Chapter.

Conservation Education Video Library

The Association of Texas Soil and Water Conservation Districts has established and updates a conservation related video library that is maintained by TSSWCB staff on their behalf for the benefit of local districts and educators. Currently there are 200 conservation-related videos in the library available to districts and teachers which includes 19 new titles in DVD format. The Association of Texas Soil and Water Conservation Districts' Public Information/Education Committee pays the first transit postage costs to mail the video(s) to the requester. Postage for returning will be the responsibility of the borrower and all videos must be insured upon return. Borrowing privileges are for a length of two weeks and must be returned upon date specified by the librarian. Videos can be ordered through your local soil and water conservation district or by contacting the TSSWCB. From January to June, there have been 24 videos of various titles loaned out to districts and teachers across the state.

Nonpoint Source (NPS) Pollution Watershed Flow Model

The NPS model is a hands-on representation of a landscape that allows students to understand how water sources can become polluted from nonpoint sources. The plastic landscape structure has industrial, undeveloped, agricultural, and residential and roadway features complete with individual houses, trees, cars, tractors and cows. When "rain" falls on the model, the runoff flows into a city lake. Using various products to add color to the water, the model demonstrates how potential pollutants are picked up by run-off.

The model is a layout of a watershed that includes all the factors that may contribute to polluting our water. (Urban features such as: factories, parking lots, construction sites, lawn chemicals and golf courses and Rural features such as: forested land, dairies, feedlots, cropland and pastureland). To demonstrate how each type of potential pollutant can enter a water body Kool-Aid and cocoa are used to color “runoff”. Grape Kool-Aid is used to represent pollution from factories and oil from parking lots and roads. Orange Kool-aid represents pollution from lawn chemicals, golf courses, and cropland and pastureland chemicals. Cocoa is used to represent pollution from construction sites, forested land, dairies and feedlots. The Kool-aid and Cocoa are sprinkled on the model in the areas that represent each type of pollutant. Once all the pollutants are sprinkled on the model a spray bottle with water is use to represent rainfall. As the pollutants get wet and start to runoff the students can see how the water carries them to the streams and into the lake where we get our drinking water. Once all the pollutants have run into the lake the students can see how these factors have the potential to make surface waters unattractive and unsafe. This demonstration leads to a discussion about how to protect the water quality and prevent our water from looking like the model.

WATER CONSERVATION AND ENHANCEMENT PROGRAM STATUS REPORT

BACKGROUND:

The 80th Legislature continued funding for the Water Enhancement Program by providing $1,848,927.00 in General Revenue Funds in FY08. These funds were directed to be used for continuation of brush control projects designated by the Soil and Water Conservation Board.

- The TSSWCB staff and other professionals have reviewed current water enhancement project throughout the State identifying the highest water yielding areas of each project with the assistance on Ken Rainwater PhD., P.E., BCEE Director, Water Resource Texas Tech University.

- Staff has been providing information on water yield to Dr. Rainwater for primarily the Twin Buttes, Pedernales, Oak Creek Lake, Champion Lake, Lake Ballinger, and Canadian River Watersheds.

- Provided the following SWCD with Brush Program Updates or Brush Program Assistance
  Area 1 Districts
  Dawson County SWCD
  Upper Colorado SWCD
  Area 2 Districts
  North Concho River SWCD Nolan County SWCD
  Middle Concho SWCD Eldorado-Divide SWCD
  Tom Green County SWCD Pedernales SWCD
  Mitchell County SWCD Gillispie County SWCD
  Runnels SWCD Pecos County SWCD
  Middle Clear Fork SWCD Midland SWCD
  Trans Pecos SWCD Sandhills SWCD
  Howard County SWCD
  Area 3
  McMullen County SWCD LaSalle County SWCD
  Caldwell/ Travis SWCD Webb County SWCD
  Waters Davis SWCD
  Area 5
  Archer County SWCD
  Lower Clear Fork/Brazos SWCD
  Pecan Bayou SWCD

- Evaluate pending application sub basin criteria from all projects

- Legislative update for Senator Duncan, Rep. Drew Darby, and Rep. Nathan Macias, and Senator Watson

- Assist TCEQ with Brush rider concerning water yield in State Brush Projects

- Evaluated sub-basins in the Twin Buttes and Pedernales watersheds that meet criteria for water enhancement cost share assistance and assess land owner participation

- Assist Comal/ Guadalupe District in reviewing potential areas for Water Enhancement Project
- Assist Dr. Rainwater with maps of treated areas in the water enhancement projects throughout the State
- Planning Lake Kickapoo Water Enhancement Project
- Preparing for Red River Authority annual meeting
- Assist Sen. Wentworth office in developing Guadalupe Watershed project
- Assisted Corp of Engineers with planning of water enhancement plan for O.C. Fisher and other Corp lakes
- Assist TSSWCB with Concho River Watershed Protection Plan
- Assist Pecan Bayou SWCD with Water Enhancement Project

2008 APPROPRIATIONS VERSUS EXPENDITURES & ENCUMBRANCES

	COLUMN 1 H.B. 1, 80th Leg. R.S., Article VI-51	COLUMN 2 *Adjusted Appropriations	COLUMN 3 *2nd Quarter (Expenditures & Encumberances)	COLUMN 4 Balance Remaining	COLUMN 5 Percent Remaining
Method of Financing:					
General Revenue Fund	$ 12,538,015	$ 12,689,143	$ 6,559,797	$ 6,129,346	48%
Federal Funds	$ 4,022,981	$ 4,240,427	$ 3,677,313	$ 563,114	13%
Total, Method of Financing	$ 16,560,996	$ 16,929,570	$ 10,237,110	$ 6,692,460	40%
Number of Full-Time-Equivalents (FTE):	67.50	67.50	65.54	1.96	3%
Items of Appropriation:					
A. Goal: Soil and Water Conservation Assistance					
A.1.1. Strategy: Program Management and Assitance. Includes Technical Assistance, Matching Funds, and Director Mileage & Per Diem Grants. Funding for District Legal Fees and Liability Insurance	$ 3,753,502	$ 4,145,749	$ 1,769,688	$ 2,376,061	57%
B. Goal: Nonpoint Source Pollution Abatement					
B.1.1. Strategy: Statewide Management Plan. Includes CWA Section 319(h) and TMDL Grant Programs	$ 5,466,950	$ 5,273,294	$ 3,972,104	$ 1,301,190	25%
B.1.2. Strategy: Pollution Abatement Plan. Includes Water Quality Management Plan and Poultry Grant Programs	$ 4,361,857	$ 4,426,777	$ 3,391,463	$ 1,035,314	23%
C. Water Supply Enhancement					
C.1.1. Strategy: Water Conseration and Enhancement.	$ 2,533,927	$ 2,537,427	$ 831,788	$ 1,705,639	67%
D. Indirect Administration					
D.1.1. Strategy: Indirect Administration	$ 444,760	$ 546,323	$ 272,067	$ 274,256	50%
Total, Items of Appropriation	$ 16,560,996	$ 16,929,570	$ 10,237,110	$ 6,692,460	40%

NOTES

***Adjusted Appropriaitons:**
Increase General Revenue Fund $58,794(Estimated); Article IX Section 19.62(a) Salary Increase (2008-09 GAA)
Increase General Revenue Fund $92,334; Article IX Section 8.03 Reimbursements and Payments (2008-09 GAA)
Increase Federal Funds $217,446; Article IX Section 8.02 Federal Funds / Block Grants (2008-09 GAA)
Transfer General Revenue Fund $266,557; Article IX Section 14.01 Appropriation Transfers (2008-09 GAA)

***2nd Quarter (Expenditures & Encumbrances)**
Federal Funds exceed anticipated pass-thru for 2nd Quarter

2008 PERFORMANCE MEASURMENT

	Target	2nd Quarter	Balance Remaining	Percent Remaining
Performance Measures				
A. Goal: Soil and Water Conservation Assistance				
Output				
Number of Grants-Related Claims Processed	1,850	950	900	49%
Number Contacts to Provide Conservation Education Assistance	14,000	8,029	5,971	43%
Number of District Meetings Attended	1,600	823	777	49%
Efficiency				
Related Claims	5.80	4.35	1.45	N/A
Explanatory				
Percent of Districts Receiving Technical Assistance Funds	99.07	99.54	-0.47	N/A
B. Goal: Nonpoint Source Pollution Abatement				
Output				
Number of Proposals for Federal Grant Funding Evaluated	20	18	2	10%
Number Water Quality Treatment Grants Made	425	175	250	59%
Number of Pollution Abatement Plans Certified	620	385	235	38%
Efficiency				
Average Number of Days to Certify Pollution Abatement Plans	20	2	18	N/A
C. Water Supply Enhancement				
Output				
Number of Acres of Brush Treated	18,776	6,555	12,221	65%
*Number of Acres of Brush under Resource Management Plan	183,333	2,020	181,313	99%
Efficiency				
Average Cost Per Acre of Mechanical Brush Clearing	48.50	55.14	-6.64	N/A
Average Cost Per Acre of Chemical Brush Clearing	25.00	54.20	-29.20	N/A

Active Projects

	Title	Description	Lead	Start	End	Federal
02-01	Administration of the FY2002 CWA Section 319(h) Agricultural/Silvicultural NPS Management Program	Administer/manage the FY02 CWA 319(h) cooperative agreement between EPA and TSSWCB. Coordinate with project cooperators on administrative related issues and manage the financial aspects of each contract.	TSSWCB	4 /1 /2002	4 /1 /2009	$304,132
02-02	Statewide NPS Pollution Management Project	Provide technical assistance for FY02 CWA 319(h) agricultural and silvicultural projects and ensure that projects meet all technical requirements and are successfully completed in a timely fashion.	TSSWCB	4 /1 /2002	4 /1 /2009	$311,290
02-15	Water Quality Information/Education	Through the development of newspaper articles, informational brochures/flyers, display exhibits and promotional materials that include both water quality and water conservation messages a strategy can be developed to heighten the public awareness of the importance of protecting and conserving water resources.	TSSWCB	3 /31/2002	3 /31/2009	$135,000
02-21	SWAT Model Simulation of the Arroyo Colorado Watershed	This project will simulate the current nutrient, BOD, and sediment loading to the Arroyo Colorado using the SWAT model. Model output will provide the needed input for the EFDC model. To achieve this, the following objectives will be accomplished:(1) Collect meteorological, landuse, crops, flow, soils, topographic, irrigation and nutrient management, wastewater discharges, water quality, and other necessary data needed to model the Arroyo Colorado with SWAT(2) Calibrate SWAT watershed model to measured flow, sediment, BOD and nutrients(3) Simulate/validate flow, nutrient, BOD and sediment loads for current conditions(4) Simulate load reduction scenarios for a suite of management measures specified by the TSSWCB	Texas Water Resources Institute	6 /1 /2007	3 /1 /2009	$94,997
03-01	Administration of the FY2003 CWA Section 319(h) Agricultural/Silvicultural NPS Management Program	Administer/manage the FY03 CWA 319(h) cooperative agreement between EPA and TSSWCB. Coordinate with project cooperators on administrative related issues and manage the financial aspects of each contract.	TSSWCB	5 /16/2003	5 /3 /2010	$154,231

	Title	Description	Lead	Start	End	Federal
03-02	Statewide NPS Pollution Management Project	Provide technical assistance for FY03 CWA 319(h) agricultural and silvicultural projects and ensure that projects meet all technical requirements and are successfully completed in a timely fashion.	TSSWCB	5 /16/2003	5 /3 /2010	$245,109
03-08	Nitrate Impacts in Groundwater	The objectives of this project are to demonstrate the effectiveness of winter cover crops in removing nitrate-nitrogen from the soil profile to minimize nitrate leaching, demonstrate the ability of zeolite to reduce atrazine and arsenic concentrations in water, and assess the extent of atrazine and arsenic detections in private groundwater in the Seymour and High Plains of Texas.	Texas AgriLife Extension	11/24/2003	8 /31/2008	$98,341
03-09	Central Texas WQMP Implementation Supplemental	The project will provide additional funding for the ongoing implementation efforts in the Little River watershed. TSSWCB projects (02-5 & 02-6) entitled Central Texas Atrazine Remediation Project.	Central Texas SWCD	10/31/2003	4 /30/2009	$424,080
03-10	Technologies for Animal Waste Pollution	The objective of this project is to evaluate up to six technologies for decreasing nonpoint source pollution and improving surface water quality, through on-site demonstrations of reduction of total and soluble P in dairy effluent applied to waste application fields.	Texas Water Resources Institute	11/24/2003	3 /31/2009	$227,793
03-11	Leaf Beetle Demonstration	The project will demonstrate the usefulness of biologically treating saltcedar in the Colorado River Basin in an effort to reduce NPS pollution loadings resulting from saltcedar on agricultural lands.	USDA-ARS	1 /15/2004	3 /31/2008	$99,246
03-12	Navarro WQMP Implementation Supplemental	This project will provide corn and sorghum producers in the Richland Chambers Reservoir watershed with an opportunity to participate in water quality educational activities, technical assistance, and financial assistance to implement BMPs to reduce the runoff of atrazine.	Navarro SWCD #514	12/10/2003	8 /31/2008	$430,279
03-19	SWQM for Plum Creek WPP	Generate data of known and acceptable quality for surface water quality monitoring (routine ambient, targeted watershed, stormflow, 24-hour DO, effluent and springflow) of main stem and tributary stations on Segment 1810 (Plum Creek) for field, conventional, flow, bacteria and effluent parameters to support development of a WPP for the Plum Creek watershed in Caldwell, Hays and Travis Counties.	Guadalupe-Blanco River Authority	6 /1 /2007	10/31/2008	$109,000

	Title	Description	Lead	Start	End	Federal
04-01	Administration of the FY2004 CWA Section 319(h) Agricultural/Silvicultural NPS Management Program	Administer/manage the FY04 CWA 319(h) cooperative agreement between EPA and TSSWCB. Coordinate with project cooperators on administrative related issues and manage the financial aspects of each contract.	TSSWCB	8 /1 /2004	6 /1 /2011	$154,220
04-02	Statewide NPS Pollution Management Project	Provide technical assistance for FY04 CWA 319(h) agricultural and silvicultural projects and ensure that projects meet all technical requirements and are successfully completed in a timely fashion.	TSSWCB	8 /1 /2004	6 /1 /2011	$375,231
04-04	Field Validation of the Texas P Index in the Poultry Areas of Texas	The objectives of this project are to determine the effects of selected soil properties in Sam Rayburn Reservoir and Lake O' the Pines watersheds and other poultry producing areas of the state in East & South Central Texas to measure & predict P runoff and compare and correlate Mehlich III and soil solution soluble P extracts to runoff P.	Texas AgriLife Extension	8 /18/2004	9 /30/2008	$390,657
04-05	Creekside Conservation Program	The purpose of this project is to protect Central Texas Highland Lakes by providing technical/financial assistance to landowners through the LCRA's Creekside Conservation Program and assess NPS reductions resulting from Creekside Conservation Program.	Lower Colorado River Authority	8 /3 /2004	8 /31/2008	$507,300
04-09	Seymour Aquifer Water Quality Improvement	This project will provide irrigators in Haskell, Knox, and Jones counties with opportunity to participate in water quality educational activities, technical assistance, financial assistance for implementation of BMPs, in order to improve water quality in Seymour Aquifer.	TWRI and Haskell, Knox and Jones SWCD	8 /19/2004	8 /31/2008	$764,054
04-10	Phytoremediation of excessively high phosphorus soils and subsequent reduced P runoff into North Bosque River	The objective of this project is to develop and demonstrate year-round forage systems for both abandoned and currently used waste application fields that can reduce P loads that soon will or already exceeds safe levels of plant-available P on the North Bosque River drainage.	Texas AgriLife Research	8 /30/2004	8 /31/2008	$238,859
04-11	Watershed Protection Plan Development for the Pecos River	This project will assess the Pecos River Basin, increase landowner and stakeholder involvement through educational efforts, and develop a Watershed Protection Plan based on the river basin assessment.	Texas Water Resources Institute	8 /25/2004	8 /30/2008	$749,381

	Title	Description	Lead	Start	End	Federal
04-12	Assessment of Springtime Contributions of Nutrients and Bacteria to the NBR	This project will provide storm and routine monitoring of tributaries to the NBR in order to assess ag NPS reductions. The project will focus on springtime contributions of nutrients and bacteria to water quality within tributaries of the NBR, assessing reductions in pre- and post-TMDL implementation periods.	TIAER	8 /15/2004	8 /31/2008	$90,090
04-13	Development of a Watershed Protection Plan for the Concho River Basin	This project will provide assessment of existing and potential water quality threats related to on-going NPS water pollution within the Concho River basin and develop a Watershed Protection Plan.	UCRA	8 /25/2004	7 /29/2008	$375,240
04-14	Assessment and Mitigation of Agricultural and Other NPS Activities in the Cypress Creek Basin.	The primary goal of the project is to evaluate the effectiveness of selected BMPs in reducing nutrient inputs to Big Cypress Creek and Lake O' Pines by documenting runoff quality from sites representing dominant soil & land use types, with/out BMPs.	NETMWD	8 /3 /2004	6 /30/2009	$442,805
04-15	Mathematical Model for Dispersal of Leaf Beetle, Diorhabda Elongata from Old World released in U.S. for Biological Control of Invasive Saltcedar	The goal of the project is to aid in the Implementation Plan for Sulfate and Total Dissolved Solids (TMDLs) in the J.B. Thomas, E.V. Spence and O.H. Ivey Reservoirs by biological control of saltcedar in riparian areas along the Colorado River of Texas and its tributaries.	ARS-USDA	10/27/2004	8 /31/2008	$136,724
04-17	Plum Creek WPP	The purpose of this project is to coordinate the development of a Watershed Protection Plan for the Plum Creek Watershed and to facilitate beginning phases of implementation.	Texas AgriLife Extension	2 /24/2005	8 /31/2008	$440,503
04-18	BMP Verification in Richland-Chambers Watershed	The purpose of the project is to verify the effectiveness of nutrient load reduction BMPs in the Richland-Chambers watershed.	Texas AgriLife Research -BREC	8 /1 /2005	7 /1 /2008	$237,722
05-01	Administration of the FY2005 CWA Section 319(h) Agricultural/Silvicultural NPS Management Program	Administer/manage the FY05 CWA 319(h) cooperative agreement between EPA and TSSWCB. Coordinate with project cooperators on administrative related issues and manage the financial aspects of each contract.	TSSWCB	7 /7 /2005	9 /1 /2011	$104,480
05-02	Statewide NPS Pollution Management Project	Provide technical assistance for FY05 CWA 319(h) agricultural and silvicultural projects and ensure that projects meet all technical requirements and are successfully completed in a timely fashion.	TSSWCB	7 /7 /2005	9 /1 /2011	$310,426

	Title	Description	Lead	Start	End	Federal
05-03	Ellis Prairie SWCD Project	This project will provide technical/financial assistance to qualifying producers on appropriate BMPs to reduce sediment, nutrient, and pesticide runoff and provide water quality educational events.	Ellis-Prairie SWCD	8 /1 /2005	8 /31/2008	$433,700
05-04	Silvicultural NPS Abatement	This project will reduce significant risks to water quality from silvicultural NPS pollution by implementing BMPs and increasing silvicultural NPS awareness by completing a statewide evaluation of silvicultural BMP implementation, providing technical assistance, education, coordination, and monitoring the effectiveness of forestry BMPs.	Texas Forest Service	9 /1 /2005	8 /31/2008	$574,521
05-05	Watershed Education	The purpose of this project will be to develop and deliver an educational curriculum which functions to support the TSSWCB's effort to prepare a Watershed Protection Plan in the target watershed.	Texas AgriLife Extension	9 /1 /2005	8 /31/2008	$358,041
05-06	PLAN	The objective of this project is to educate 3rd party applicators of poultry litter to the environmental benefits of using proper application management techniques on new	Texas AgriLife Extension	9 /1 /2005	8 /31/2008	$210,002
05-07	Impact of Proper Fertilizer	The objective of this project is to implement fertilizer management practices on cultivated and pasture fields to demonstrate the importance of using proper management relating to application method, timing, and rate, and conduct demonstration/educational activities on the importance of proper organic fertilizer management.	Texas AgriLife Extension	9 /1 /2005	8 /31/2009	$186,352
05-08	Peach Creek Project	This project will provide agricultural producers in the Peach Creek watershed with an opportunity to participate in water quality educational activities, technical assistance, and financial assistance for the implementation of Best Management Practices (BMPs), in order to improve water quality.	Gonzales SWCD	9 /1 /2005	8 /31/2008	$465,123
05-09	Lake Granger Project	The Brazos River Authority will facilitate the development of a Watershed Protection Plan for the Lake Granger Watershed. This project will also provide the Little River-San Gabriel and Taylor SWCDs with funding for technical/ financial assistance to implement BMPs through conservation planning.	BRA & Little River-San Gabriel and Taylor SWCD's	9 /1 /2005	8 /31/2008	$814,168

	Title	Description	Lead	Start	End	Federal
05-10	Arroyo Eduation Project	The purpose of this project is to educate agricultural producers on how to better produce and manage their acreage and support and promote associated programs implementing BMPs related to water quality protection.	TWRI	9 /1 /2005	8 /31/2008	$103,959
05-12	Arroyo WQMP Project	This project will provide technical assistance to landowners to aid in the development and implementation of a minimum of 78 WQMPs in the Arroyo Colorado Watershed.	Hidalgo & Southmost SWCDs	9 /1 /2005	8 /31/2008	$970,478
06-01	Administration of the FY2006 CWA Section 319(h) Agricultural/Silvicultural NPS Management Program	Administer and manage the FY2006 CWA 319(h) cooperative agreement between EPA and TSSWCB. Coordinate with project cooperators on administrative related issues and manage the financial aspects of each	TSSWCB	10/1 /2006	9 /1 /2011	$294,343
06-02	FY2006 Statewide NPS Pollution Management Program	Provide technical assistance for FY06 CWA 319(h) agricultural and silvicultural projects and to ensure that the projects meet all technical requirements and are successfully completed in a timely fashion.	TSSWCB	10/1 /2006	9 /1 /2011	$487,998
06-03	TSSWCB NPS Team Support	Provide technical assistance for FY01 - FY06 CWA 319(h) agricultural and silvicultural projects to ensure that the projects meet all requirements.	TSSWCB	10/1 /2006	9 /1 /2011	$44,000
06-04	Improvement and Standardization of Laboratory Quality Assurance and Quality Control for Mehlich III Soil Test Methodology: Phase 2	The purpose of this project is to develop appropriate and standardized quality assurance/quality control and standard operating procedures (SOP) for use of the Mehlich III soil test extractant.	Texas AgriLife Extension	10/1 /2006	9 /30/2009	$100,786
06-05	Lone Star Healthy Streams	This project will reduce the levels of bacterial contamination of Texas watersheds from grazing livestock (beef cattle) by developing an educational curriculum that delivers current knowledge training in production and environmental management of grazing lands and their associated watersheds, evaluating and demonstrating the effectiveness of BMPs in reducing bacterial contamination of streams and water bodies from grazing lands, testing the functionality of the education program and make necessary changes and program modifications based on the results, and promoting Statewide adoption of appropriate best management practices (BMPs) and other watershed / water quality protection activities through education, outreach and technology transfer.	Texas Water Resources Institute	10/1 /2006	9 /30/2009	$404,673

	Title	Description	Lead	Start	End	Federal
06-07	Monitoring and Educational Programs Focused on Escherichia coli Bacteria and Nutrient Runoff on Dairy Operations in the Leon Watershed	The objectives of this project are to evaluate the presence of E. coli bacteria and nutrients on livestock operations and determine the risks of movement of E. coli and nutrients to surface waters, educate livestock producers about best management practices to decrease E. coli bacteria and nutrients in runoff from livestock operations, and determine the source(s) of E. coli in runoff from the sites and its relative contribution to the E. coli populations downstream of the waste application fields.	Texas AgriLife Extension	10/1 /2006	9 /30/2009	$438,357
06-08	Education Program for Improved Water Quality in Copano Bay	The objective of this project is to improve the water quality in Copano Bay and its tributaries by increasing awareness of the water quality issues throughout the watershed and providing education and demonstrations for landowners and livestock owners in the watershed on practices to decrease or prevent bacteria from entering waterways.	Texas Water Resource Institute	10/1 /2006	9 /30/2009	$211,794
06-09	WQMP Implementation in the Middle and South Bosque River Watersheds	This project will provide technical and/or financial assistance to landowners to aid in the development and implementation of WQMPs and compile information on the location and types BMPs for each WQMP implemented.	TSSWCB	11/1 /2006	9 /30/2009	$527,770
06-10	Arroyo Colorado Agricultural Nonpoint Source Assessment	This project will better characterize agricultural runoff in the Arroyo watershed, demonstrate, and evaluate BMP effectiveness, and measure progress in achieving water quality goals in the watershed. The objectives of the project are to perform a complete historical data review and analysis related to water quality and agricultural best management practices implemented in the watershed, investigate site-specific differences and temporal variation of water quality in drainage from agricultural production areas, and collect data for future recalibration of SWAT model to better estimate the total nonpoint source loading into the river.	Texas Water Resources Institute	10/1 /2006	9 /30/2009	$430,650

	Title	Description	Lead	Start	End	Federal
06-11	Buck Creek WPP	The objectives of this project are to identify specific sources of the bacteria in Buck Creek, evaluate potential management alternatives for restoring the waterbody and educate landowners on the best management practices, and develop a watershed protection plan to restore the waterbody through a stakeholder driven process.	Texas Water Resources Institute	10/1 /2006	9 /30/2009	$430,181
06-12	Leon River WPP	The objectives of this project are to use a locally-driven, stakeholder process to develop a Watershed Protection Plan for the Leon River Watershed above Lake Belton; enhance data collection efforts to support and facilitate implementation activities; provide the TSSWCB and the TCEQ with recommendations on implementation strategies that can be incorporated into the TMDL Implementation Plan; and provide an overall assessment of the Leon River Watershed above Lake Belton.	Brazos River Authority	10/1 /2006	9 /30/2009	$440,525
06-13	Three EQIP Technicians	The objective of the project is to provide technical assistance to landowners to aid in the development, implementation, and/or maintenance of WQMPs through SB503, Clean Water Act (CWA) Section 319(h) and EQIP funds and compile information on the location and types BMPs for each WQMP implemented.	Karnes, Atascosa, & Dewitt SWCDs	12/1 /2006	9 /30/2009	$387,900
06-15	SWQM for Copano Bay TMDL	The objective of this project is to provide quality assured surface water quality monitoring data to support development of bacteria TMDLs for Copano Bay and Mission and Aransas Rivers in Aransas, Bee, Goliad, Karnes, Refugio, and San Patricio Counties.	Nueces River Authority	1 /1 /2007	9 /30/2009	$214,388
07-01	Administration of the FY2007 CWA Section 319(h) Agricultural/Silvicultural NPS Management Program	Administer/manage the FY07 CWA 319(h) cooperative agreement between EPA and TSSWCB. Coordinate with project cooperators on administrative related issues and manage the financial aspects of each contract.	TSSWCB	10/1 /2007	9 /30/2010	$290,000
07-02	FY2007 Statewide Agricultural/Silvicultural NPS Management Program	Provide technical assistance for FY07 CWA 319(h) agricultural and silvicultural projects and ensure that projects meet all technical requirements and are successfully completed in a timely fashion.	TSSWCB	10/1 /2007	9 /30/2010	$460,000

	Title	Description	Lead	Start	End	Federal
07-03	Adaptation of AVGWLF watershed model for use in Texas: Phase I	The purpose of this project is to test and modify the AVGWLF watershed model for use in selected areas of Texas and surrounding states.	PSU	10/1 /2007	9 /30/2010	$122,623
07-04	Management Repository of Agricultural and Silvicultural Environmental Data	Development of a comprehensive, user-friendly database that will house data collected via CWA §319(h) Grant Program funds allocated to and through the Texas State Soil and Water Conservation Board.	Texas AgriLife Research - BREC	10/1 /2007	9 /30/2010	$323,342
07-05	LCRA Soil and Water Stewardship Program	Protect the Texas lower Colorado River basin by providing educational, technical and financial assistance to landowners through the Lower Colorado River Authority's Soil and Water Stewardship Program. Assess NPS reductions resulting from the Soil and Water Stewardship Program. Join with local soil and water conservation districts in promoting and educating agricultural producers and local stakeholders on abatement of NPS pollution through implementation of conservation practices and promotion of Water Quality Management Plans.	LCRA	10/1 /2007	9 /30/2010	$458,224
07-06	Fate and Transport of E. coli in Rural Texas Landscapes and Streams	The main objectives of this project are to identify, characterize, and quantify E. coli loads resulting from various sources in an impaired watershed, monitor survival, growth, re-growth, and die-off of E. coli under different environmental conditions, monitor re-suspension of E. coli in streams, and educate stakeholders by disseminating qualitative and quantitative information acquired in this monitoring and demonstration project.	TWRI	10/1 /2007	9 /30/2010	$300,000
07-07	Assessment of NPS Pollution from Cropland in the Oso Bay Watershed	The long-term goal of this project is to support program implementation efforts of the TSSWCB, the Nueces SWCD #357, and the TCEQ established to protect and restore the water quality of the Oso Bay and Oso Creek water bodies from NPS. Goals and objectives pursued in the project are the assessment of runoff-related loadings of nutrients, selected inorganic ions, suspended sediments, and bacteria (Enterococcus) from the Oso Creek's watershed and (the development of a better understanding of the role of these runoff-related loadings on the dynamics of water quality properties in these water bodies	Texas AgriLife Research	10/1 /2007	9 /30/2010	$165,050

	Title	Description	Lead	Start	End	Federal
07-08	Regional Watershed Coordinator	The objective of this project is to successfully facilitate and coordinate watershed planning activities in the Wharton Regional Office service area.	TSSWCB	10/1 /2007	9 /30/2010	$194,000
07-09	Statewide Implementation of the Texas Watershed Steward Program	The objective of this project is to facilitate statewide implementation of the Texas Watershed Steward (TWS) program through watershed-based group trainings and computer-based distance training components. · This project will increase stakeholder involvement in the WPP and/or TMDL development processes by educating and organizing local citizens and to promote healthy watersheds by increasing citizen awareness, understanding, and knowledge about the nature and function of watersheds, potential impairments, and watershed protection strategies to minimize nonpoint source pollution.	Texas AgriLife Extension	10/1 /2007	9 /30/2010	$520,000
07-10	Broad-based Communication and Forecasting for Environmental Quality (Envirocast- Houston)	This project will develop a plan of action to create and maintain a website for water quality & other environmental issues and environmental quality broadcast spots to educate the public in the target watersheds in partnership with StormCenter Communications Inc. and Houston Channel 11 (CBS Affiliate); develop partnerships with state, federal and regional agencies and local governments as local content providers to provide information for the website and broadcast spots; publicize and promote the project; train partnering station and local content providers on developing, implementing and utilized the Envirocast tools; evaluation of Phase I; project administration.	HGAC	10/1 /2007	9 /30/2010	$725,000
07-11	Lampasas River Watershed Assessment and Protection Project	The purpose of this project is to work in concert with federal, state and local partners to coordinate a stakeholder driven process for the development of a WPP in the Lampasas River Watershed that is consistent with EPA's nine essential elements fundamental to a potentially	Texas AgriLife Research - BREC	10/1 /2007	9 /30/2010	$498,422
07-12	Assessing Water Quality Management Plan Implementation in the Middle and South Bosque River and Hog Creek Watersheds	This project will provide storm and routine monitoring of the Middle and South Bosque River and Hog Creek watersheds in order to assess ag NPS reductions associated with implementation of WQMPs within waterbodies of concern for nitrite-nitrate nitrogen. A secondary objective is to monitor reductions in bacteria concentrations through routine grab sampling.	TIAER	10/1 /2007	9 /30/2010	$308,640

	Title	Description	Lead	Start	End	Federal
07-13	Identify and Characterize NPS Bacteria Pollution to Support Implementation of Bacteria TMDLs in the Oso Bay Watershed	To provide information on nonpoint sources of enterococci in the upstream section of Oso Creek to state agencies and local planning entities in support of the Implementation Phase of the Oso Creek/Oso Bay watershed TMDL	Texas A&M University-Corpus Christi	10/1 /2007	9 /30/2010	$442,372
07-14	Agricultural NPS Remediation in the Cedar Creek Reservoir Watershed	The project's goal is to reduce nutrient and sediment loading to Cedar Creek Reservoir by implementing BMPs on crop and pasture lands. The objectives are to encourage BMP implementation by providing landowners with technical and financial assistance through the Kaufmann-Van Zandt SWCD and educational programs through Texas Cooperative Extension. Effectiveness of BMPs will be assessed by TAES.	Kaufman-Van Zandt SWCD #505	10/1 /2007	9 /30/2010	$736,619

TEXAS STATE SOIL & WATER CONSERVATION BOARD

SEMI - ANNUAL REPORT

TO THE

GOVERNOR,
LIEUTENANT GOVERNOR,
AND
SPEAKER OF THE HOUSE

JANUARY 1, 2009

Forward

In response to S.B. 1828 passed by the 78th Texas Legislature in Regular Session, 2003, the Texas State Soil and Water Conservation Board presents this review of its programs and activities. S.B. 1828 added §201.028 to the Texas Agriculture Code to provide that the TSSWCB shall prepare and deliver to the Governor, the Lieutenant Governor, and the Speaker of the House of Representatives a report, not later than January 1 and July 1 of each year, relating to the status of the budget areas of responsibility assigned to the State Board including outreach programs, grants made and received, federal funding applied for and received, special projects, and oversight of soil and water conservation district activities.

The FY08 Operating Budget with past expenditures is attached to this report. Information on grants made to local districts and other entities is incorporated within the program section it involves. Ongoing Federal grant program projects under the Clean Water Act are provided in another attachment.

The Texas State Soil & Water Conservation Board takes pride in the accomplishments and remarkable progress that have been made in soil and water conservation in this state. Often environmental successes are slow to be realized. We have realized and previously reported one success story that involves reducing the level of Atrazine in several water bodies, particularly the Aquilla Reservoir in the Hill County-Blackland SWCD.

However, we recognize there remains a continuing challenge and an ongoing need to ensure our land has the capability to produce food and fiber for future Texans. Because of changes in land use, ownership, technology, and population growth, the need for soil and water conservation programs will remain critical. Texas has a finite number of acres to provide for the needs and desires of citizens and visitors, and this places an ever-increasing demand on agricultural land. Farmers and ranchers face complex decisions concerning the best ways to manage and utilize the land available to them.

We believe that soil and water conservation programs must remain dynamic as land uses change and technology improves to make some conservation practices more capable of meeting demands on soil and water resources. We also maintain the belief that the purpose of the soil and water conservation program is to promote the wise use of our renewable natural resources and provide for the conservation and enhancement of the soil and water resources of this state through and by the dynamic decisions of local soil and water conservation districts which promotes the use of each acre of land within its capabilities and treating it according to its needs.

From the beginning, the Texas State Soil and Water Conservation Board and local soil and water conservation districts have formed an organizational framework through which various complex governmental conservation programs are delivered to local landowners and operators. This relationship has successfully been utilized to disseminate sound management techniques and practices to maintain individual productive land uses to provide for the needs of present and future generations.

To the landowners of Texas, the individual soil and water conservation district directors, and the many agencies and organizations assisting and working with our programs, we offer our sincere thanks.

Table of Contents

	Page
Historical Background	4
Organization	6
Staff	7
Soil and Water Conservation Districts	8
Annual State Meeting Of Soil and Water Conservation District Directors	10
Director Mileage and Per Diem	10
District Technical Assistance Funds	10
District Conservation Assistance Program	10
Programs and Activities of the TSSWCB	10
Texas Nonpoint Source Management Program	11
Clean Water Act §319(h) Nonpoint Source Grant Program	12
Total Maximum Daily Load Program	13
Task Force on Bacteria Total Maximum Daily Loads	16
Watershed Protection Plan Program	16
Water Quality Management Plan Program	20
Poultry Water Quality Management Plan Initiative	22
Comprehensive Nutrient Management Plan Program	24
Statewide Bacterial Water Quality Impairment Reduction Initiative	25
Coastal Management Program	26
Information Technology	27
Public Information /Education Report	28
General Overview	28
2008 Summer Teacher Workshops	28
2009 Texas Conservation Awards Program	29
Soil & Water Stewardship Public Speaking Contest	31
Wildlife Alliance For Youth	31
State Woodland Clinic and Contest	32
Regional Woodland Clinic	32
Conservation Education Video Library	33
Nonpoint Source (NPS) Pollution Watershed Flow Model	33
Water Conservation and Enhancement Program Status Report	34
TSSWCB FY08 Fiscal Report	Atch 1
Ongoing Clean Water Act, §319(h) Grant Program Projects	Atch 2

Historical Background

In the early history of the United States, those involved in agriculture often did not consider the conservation of soil and water resources. Land was cleared and put into farm production. When the land quit producing at a profitable level, the farmers merely moved on to new land farther west and started the process over again. There was no need to be concerned with soil conservation, as there was a seemingly unlimited supply of virgin land waiting to be tilled. This process continued through the 1800s and into the early 1900s. With the outbreak of World War I, farmers in the Great Plains states were encouraged to break out native grassland to grow wheat and other foodstuffs to feed the nation and the world. As a result of these and other unwise management practices and the fact that the farmlands were experiencing long periods of drought, the 1930s produced some of the worst dust storms the nation had ever seen. Clouds of dust rolled across the plains states sending dust storms through the south and into the nation's capital. At the same time, the nation was in the midst of a great economic depression. The federal government, seeking ways to put people back to work and encourage conservation, created the Civilian Conservation Corps and Soil Erosion Service. Through these mechanisms, demonstration projects were initiated to train technicians and to educate the public in ways to conserve soil resources. These programs were successful in putting people back to work, but lacked the local ties to establish lasting conservation programs.

One of the early day leaders in the national effort to control soil erosion was Hugh Hammond Bennett from North Carolina. After graduation from the University of North Carolina in 1903, Hugh Bennett took a job with the Bureau of Soils in the United States Department of Agriculture. Because of his experience, scientific knowledge and leadership ability, he was put in charge of the Soil Erosion Service when it was created in 1933. In 1935, P.L. (Public Law) 46 was passed creating the Soil Conservation Service within the U.S. Department of Agriculture and Hugh Bennett became the first Chief of the agency. He soon became internationally known for his accomplishments in conservation work.

With the help of Congressman Buchannan from Columbus, Texas, Hugh Bennett was able to persuade President Franklin Roosevelt that the soil resources of this nation were being wasted. He convinced the President that a Model Soil Conservation Act should be developed and sent to the governors of each state for passage by their state legislatures. The purpose of this Model Act would be to develop programs at the state and local level to control soil erosion.

In 1936, such a Model Act was sent to the governors with the endorsement of President Roosevelt. The Model Act, developed in Washington, was patterned after the Texas Wind Erosion Act, the Grass Conservation Acts in the Northern High Plains and certain water conservation district law.

In 1937 legislation was introduced in the Texas Legislature based on this Model Act. It is reported that as many as 25 different versions of this soil conservation law were considered before a final version was passed. There was much heated discussion of the proposed legislation. When the final version was adopted, the bill contained many undesirable features. The law would have set up Soil Conservation Districts automatically on a county basis and made County Commissioners Courts the governing body. A portion of the county tax was to be used to finance the program and county agricultural agents were to be the administrative officers.

A number of agricultural leaders from across the state had, by this time, become concerned about the newly passed legislation. It was their opinion that, if the responsibility for installing and maintaining conservation measures lay in the hands of the land owners, the control of such a program should also be

in their hands. As a result of these and other concerns, a group of landowners led by V.C. Marshall of Heidenheimer, Texas, convinced the Governor to veto the 1937 legislation.

Hard feelings among agricultural leaders resulted from the attempt to pass this soil conservation law. Under the leadership of Mr. Marshall, a concerted effort was made during the interim between legislative sessions to heal the old wounds and to put together a version of a law that would be generally accepted by the farmers and ranchers of Texas. Mr. Marshall organized a committee of leaders from across the state to promote the passage of a new Soil Conservation Law. He traveled many miles at his own expense seeking the views of agricultural leaders and promoting the idea of the Soil Conservation District Program.

The key points Mr. Marshall felt should be included in the new law were that (1) farmers and ranchers should determine whether or not a Soil Conservation District was needed and hold a local option election prior to the establishment of the district; (2) the program should be controlled by landowners; and (3) the Soil Conservation Districts should have no taxing authority or the power of eminent domain.

In 1939 the Texas Legislature passed H.B. (House Bill) 20 which incorporated those features and was the first Soil Conservation Law for the state. The law created the State Soil Conservation Board and allowed for the creation of the Soil Conservation Districts. Mr. Marshall was elected as the first Chairman of the Soil Conservation Board and later resigned to become the first Executive Director of the agency.

On April 30, 1940, the Secretary of the State issued Certificates of Organization for the first 16 Soil Conservation Districts paving the way for the program we now operate. Today, Texas has 217 local soil and water conservation districts that encompass more than 99% of the state.

As previously mentioned, the Model Act endorsed by President Roosevelt was in part patterned after the Texas Wind Erosion Act. Texas was already making attempts to address soil conservation as a result of the "Dust Bowl" days of the 1930s. The 44th Legislature in 1935 passed legislation authorizing the establishment of Wind Erosion Conservation Districts. This law provided for the creation of districts to "conserve the soil by prevention of unnecessary erosion caused by winds, and the reclamation of lands that have been depreciated or denuded of soil by reasons of winds." Although a number of Wind Erosion Control Districts were created, the passage of the Soil Conservation District Law in 1939 resulted in those districts becoming dormant.

In 1975, Governor Dolph Briscoe, by Executive Order, designated the TSSWCB as lead agency to assume the planning and management responsibility for control of agricultural and silvicultural nonpoint source pollution as required by the Federal Water Pollution Control Act.

In 1981 the 67th Legislature passed H.B. 1436, which for the first time codified the agricultural laws of Texas. Title 7, Chapter 201 of this code contains the portion pertaining to Soil and Water Conservation.

In 1985 the 69th Legislature passed S.B. 1083 creating a Brush Control Program in Texas and granting new powers and responsibilities, without funding, to the TSSWCB and Soil and Water Conservation Districts under Chapter 203 of the Agriculture Code. In 1999, the TSSWCB received its first appropriation in the FY00-01 biennium to control water-depleting brush and trees, such as cedar and mesquite. The program received $9.1 million to establish a pilot project in the North Concho Watershed.

In 1993, the 73rd Legislature passed S.B. 503 which named the TSSWCB the lead agency to address water quality issues relating to runoff from diffused, or nonpoint sources resulting from agricultural and forestry operations. In 1999, the Legislature expanded the TSSWCB's environmental mission and appropriated money to address water pollution from nonpoint sources under a separate, federally mandated program.

The leaders who framed the Texas Soil and Water Conservation Law in 1939 recognized that landowners and operators of private land constitute the basic resource for the conservation of our renewable natural resources. Without the support and willing participation of private landowners and operators in the development and implementation of soil and water conservation programs there is little hope of success. Local soil and water conservation districts led by farmers and ranchers who know the land and the local conditions and problems have the means to develop conservation plans that address each acre of land specific to its needs to solve or reduce the severity of its problems.

Organization

Since inception, the TSSWCB has been governed by five board members, elected by delegates from each of five regions of the state's 217 local soil and water conservation districts. Elections occur annually at regional conventions of the local soil and water conservation districts, with members serving two-year staggered terms. However, with the enactment of S.B. 1828 by the 78th Legislature, two Governor appointees join the five elected board members to create a seven-member board. The two Governor appointed positions are listed below. The term of one member appointed by the Governor expires February 1 of each odd-numbered year, and the term of the other member appointed by the Governor expires on February 1 of each even-numbered year.

Elected State Board members must be 18 years of age or older; hold title to farmland or ranchland; and be actively engaged in farming or ranching. The Governor appointees must be actively engaged in the business of farming, animal husbandry, or other business related to agriculture and wholly or partly owns or leases land used in connection with that business; and may not be a member of the board of directors of a conservation district.

The State Board elects its own Chair and generally meets every odd month, unless specific programs or issues require more immediate action. The following list shows the current Board members and shows which State Board Region they represent.

Texas State Soil and Water Conservation Board

Member Name	**Region**	**Term**	**Residence**
Aubrey L. Russell	#1	May 1, 2007 – May 5, 2009	Panhandle
Marty H. Graham	#2	May 6, 2008 - May 4, 2010	Rocksprings
José O. Dodier, Jr.	#3	May 1, 2007 – May 5, 2009	Zapata
Jerry D. Nichols	#4	May 6, 2008 – May 4, 2010	Nacogdoches
Barry Mahler	#5	May 1, 2007 – May 5, 2009	Iowa Park
Larry D. Jacobs	Appointed	February 1, 2006-February 1, 2008	Montgomery
Joe L. Ward	Appointed	February 1, 2007-February 1, 2009	Telephone

Staff

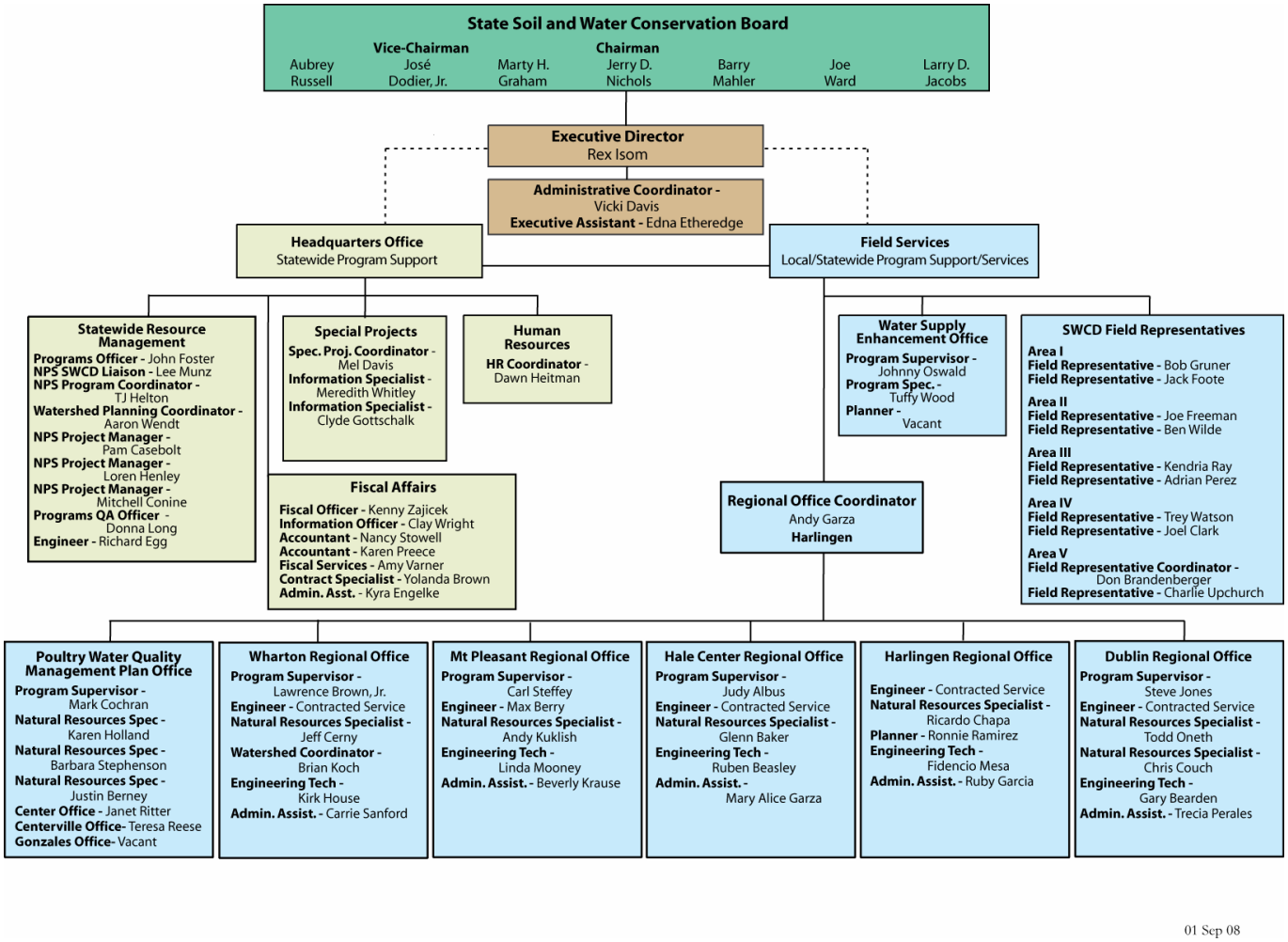
Mr. Rex Isom was named as the Executive Director in January 2004 and continues to carry out the directives of the State Board and directing staff efforts. We emphasize our agency philosophy as stated in our Strategic Plan, "The State Soil and Water Conservation Board will act in accordance with the highest standards of ethics, accountability, efficiency, and openness. We affirm that the conservation of our natural resources is both a public and a private benefit, and we approach our activities with a deep sense of purpose and responsibility." Mr. Isom, as Executive Director, is leading the agency in that direction and expects all employees to follow that lead.

The 80th Legislature authorized appropriations for 4 additional full-time employees (FTEs) for the Water Quality Management Plan Program to conduct activities related to poultry production, and an additional 2 full-time employees to facilitate the development and implementation of Total Maximum Daily Loads.

As of December 1, 2008 the TSSWCB employed 65 staff, 23 of which work in the Temple headquarters. The remaining employees are field staff, either working out of their homes or located in seven satellite offices; five regional offices and two program specific offices, located throughout the state. Due to difficulty in recruiting engineers, this service is now being contracted with engineering firms. The following organization chart shows the agency's current structure.

The current structure of the TSSWCB reflects efforts to maintain more personnel in the field and away from headquarters for a 65% to 35% ratio of Field personnel to Headquarters personnel.

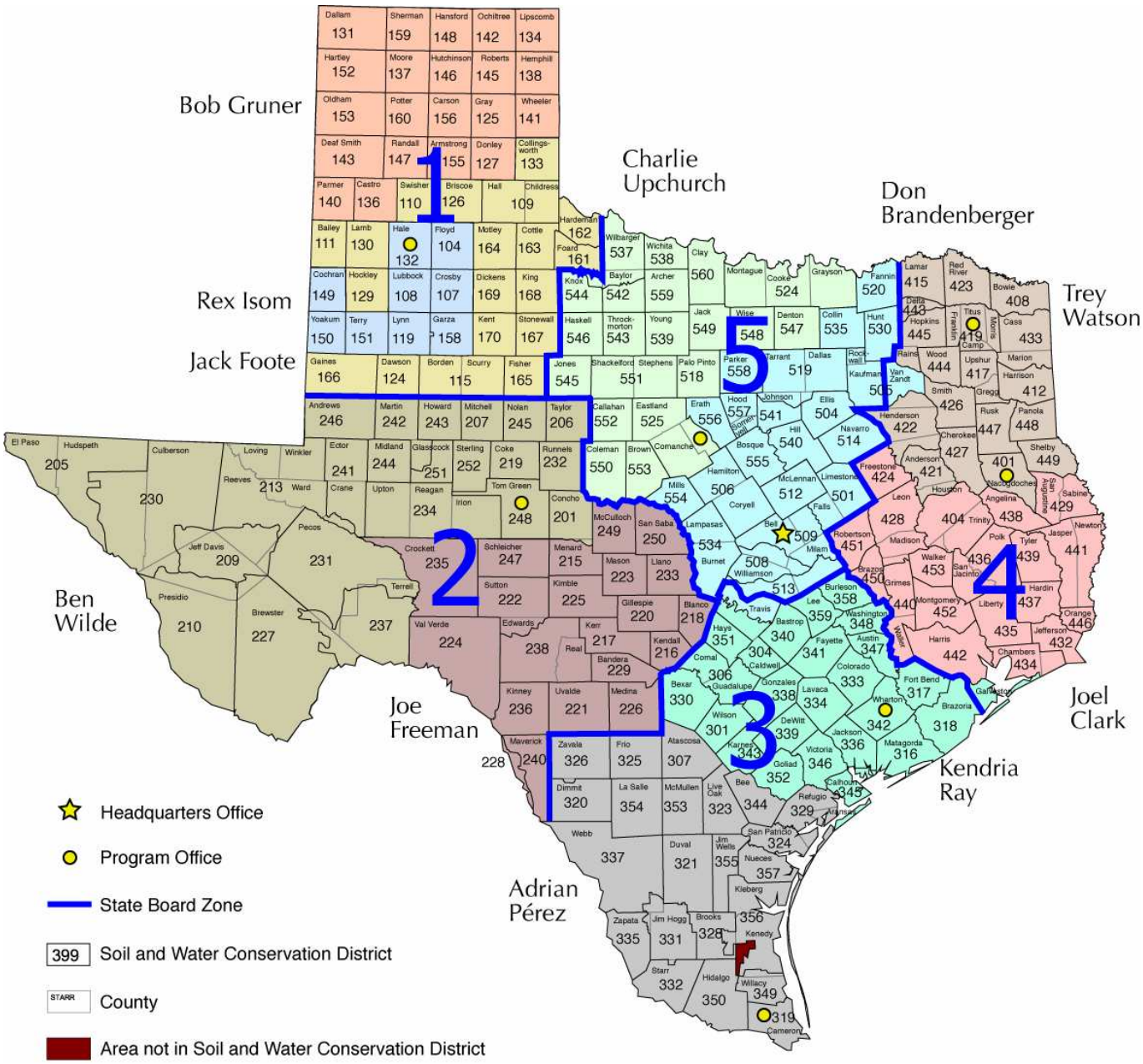
The regional office staff along with the program specific staff provides on-site technical assistance to farmers and ranchers. The field staff serves as a liaison between the TSSWCB and local districts. The field staff also provides assistance to local districts and district employees concerning operations, programs, and activities. The regional office staff and the program specific staff coordinates with the Texas Commission on Environmental Quality (TCEQ), Texas Agrilife Extension Service, and the USDA's Natural Resource Conservation Service (NRCS) to provide technical assistance to landowners to implement Water Quality Management Plans (WQMPs).



Soil and Water Conservation Districts

The TSSWCB performs many of its activities in coordination with the state's 217 local soil and water conservation districts. These local districts are political subdivisions of the state, established through local option elections of agricultural landowners. Districts generally reflect county boundaries, but may also follow river basin or watershed boundaries, depending on the desires of the local landowners.

The following soil and water conservation district map shows the current 217 local districts that cover almost the entire state. That portion of the state not in a soil and water conservation district is in Kenedy County and contains the privately owned King Ranch. The map also shows the grouping of the districts into the five State Board Districts that respectively elect a State Board member and shows the field staff that is assigned to work with each district within a specific area.



Landowners within these local districts elect the five district directors that comprise the districts governing body or board of directors. This board of directors administers the programs and activities of the district. Representatives of the districts within each region then elect the members of the State Board through a series of convention style-elections.

Districts do not have taxing authority and rely on locally generated funds from various activities and programs, federal assistance, county assistance, and state assistance from the TSSWCB. The USDA Natural Resource Conservation Service (NRCS) provides most of the federal assistance available to districts and through cooperative agreements provides technical assistance to farmers and ranchers requesting assistance from the district.

Annual State Meeting Of Soil and Water Conservation District Directors

The Annual State Meeting of Soil and Water Conservation District Directors, required in §201.081, Texas Agriculture Code, was scheduled to convened in Galveston September 29-30 and October 1 2008, however that meeting was cancelled due to Hurricane Ike which hit the Galveston area just days before. The State Board quickly rescheduled and conducted the meeting at the Hyatt Lost Pines Resort near Bastrop on October 27-28, 2008. There were 120 districts represented, with 244 individual district directors that registered for the meeting. The total registration was 630.

The agency has scheduled the 2009 annual meeting for October 19-21 in Arlington.

Director Mileage and Per Diem

The passage of H.B. 496 by the 80th Legislature allows for an increase in the reimbursement rate for District Director Mileage claims from 18 cents to the current state rate of mileage. However, the legislation did not provide additional funding to cover the cost of the increase.

At its July 2008 Meeting, the TSSWCB approved an additional $125,000 to supplement Director Mileage & Per Diem allocations for FY 2009 claims. The TSSWCB anticipates working with the Legislature to pursue a supplemental appropriation in January 2009.

District Technical Assistance Funds

The 80th Legislature provided Districts with an approximate 40% increase in Technical Assistance Funds for the 2008-09 Biennium. The TSSWCB disburses Technical Assistance payments to Districts on a reimbursing basis to supplement their efforts in providing assistance to agricultural producers in the state. Distributions are contingent upon Districts filing annual performance reports with the TSSWCB. The FY 2009 appropriation for this program is $1,439,445.00.

District Conservation Assistance Program

The 80th Legislature provided Conservation Assistance Grants to Districts for the 2008-09 Biennium. The grants are awarded on a matching basis requiring Districts to raise funds from sources other than the TSSWCB. Districts do not have taxing authority and use locally raised funds with this matching grant to support their operational expenses. The FY 2009 appropriation for this program is $916,364.00.

Programs & Activities of the TSSWCB

The services and programs provided by the TSSWCB target rural Texas farmers and ranchers, but the results of these services benefit all Texans. For example, many of the flood control structures maintained by SWCDs serve to protect heavily populated areas from flood damage, and also prevent sediment from building up in suburban drinking water supplies. Another example is the use of best management practices (BMPs), implemented through TSSWCB-certified water quality management plans (WQMPs), to prevent pesticides, nutrients, bacteria and other contaminants from impairing Texas streams, rivers, lakes, and estuaries.

The agency is responsible for numerous natural resource conservation efforts, the most prominent of which is serving as the lead state agency for the prevention, management, and abatement of nonpoint source water pollution resulting from agricultural and silvicultural (forestry-related) activities. To fulfill this mandate, the agency jointly administers the *Texas Nonpoint Source Management Program*. As a result, many of the agency's programs and services, and more then 60% of the agency's FY2009 budget, aim to improve and protect water quality, including the Water Quality Management Plan Program, the Clean Water Act §319(h) Nonpoint Source Grant Program, the Total Maximum Daily Load Program and the Watershed Protection Plan Program.

The TSSWCB is also responsible for water conservation, or water quantity. The major existing program addressing water conservation is the Water Supply Enhancement Program. Many BMPs implemented by farmers and ranchers as prescribed in their WQMP have ancillary water conservation benefits – increasing irrigation efficiency and reducing water demand. The TSSWCB is a member of the Water Conservation Advisory Council, which was established by the 80th Texas Legislature.

Other responsibilities include prevention of soil erosion, control of floods, maintaining the navigability of waterways, the preservation of wildlife, protection of public lands, and providing information to landowners regarding the jurisdictions of the TSSWCB and the Texas Commission on Environmental Quality (TCEQ) related to nonpoint source water pollution.

Texas Nonpoint Source Management Program

The federal Clean Water Act (CWA) requires States to develop a program to protect the quality of water resources from the adverse effects of nonpoint source (NPS) water pollution. The *Texas NPS Management Program* is the State's official roadmap for addressing NPS pollution. The program publication is updated every five years; the most recent revision was submitted to the U.S. Environmental Protection Agency (EPA) by the Governor in December 2005. The *Program* is jointly administered by the TSSWCB and the Texas Commission on Environmental Quality (TCEQ).

The *Program* utilizes baseline water quality management programs and regulatory, voluntary, financial, and technical assistance approaches to achieve a balanced program. NPS pollution is managed through assessment, planning, implementation, and education. The TSSWCB and the TCEQ have established goals and objectives for guiding and tracking the progress of NPS management in Texas. Success in achieving the goals and objectives are reported annually in the *NPS Annual Report*, which is submitted to EPA in accordance with the CWA.

Implementation of the *Program* involves partnerships among many organizations. With the extent and variety of NPS issues across Texas, cooperation across political boundaries is essential. Many local, regional, state, and federal agencies play an integral part in managing NPS pollution, especially at the watershed level. They provide information about local concerns and infrastructure and build support for the kind of pollution controls that are necessary to prevent and reduce NPS pollution. SWCDs are vital partners in working with landowners to implement BMPs that prevent and abate agricultural and silvicultural NPS water pollution. By establishing coordinated frameworks to share information and resources, the State can more effectively focus its water quality protection efforts.

Multiple water quality programs administered by and/or coordinated through TSSWCB collectively represent the agency's efforts in supporting the goals and objectives of the *Program* including:

- Clean Water Act §319(h) Nonpoint Source Grant Program
- Total Maximum Daily Load Program
- Watershed Protection Plan Program
- Water Quality Management Plan Program
- Coastal Management Program
- Texas Groundwater Protection Strategy

For more information on the Texas Nonpoint Source Management Program, visit our website at http://www.tsswcb.state.tx.us/managementprogram.

Clean Water Act §319(h) Nonpoint Source Grant Program

Congress enacted §319(h) of the CWA in 1987, establishing a national program to control NPS water pollution. Through §319(h), federal funds are provide through the EPA to the States for the development and implementation of each State's NPS Management Program. Texas' share of the §319(h) funding is divided equally between the TCEQ and the TSSWCB.

TSSWCB is currently administering $14 million in §319(h) funds through 60 active projects that address a wide array of agricultural and silvicultural NPS issues (Figure 1). Specific project activities include developing and implementing Watershed Protection Plans (WPPs) and Total Maximum Daily Loads (TMDLs); supporting targeted educational programs; and implementing BMPs to abate NPS pollution from dairy and poultry operations, silvicultural activities, grazing operations, and row crop operations. Quarterly progress reports for ongoing projects were received on July 15, 2008 and October 15, 2008. To date, reports have been received for 100% of the projects. These reports are entered semi-annually into EPA's Grants Reporting and Tracking System.

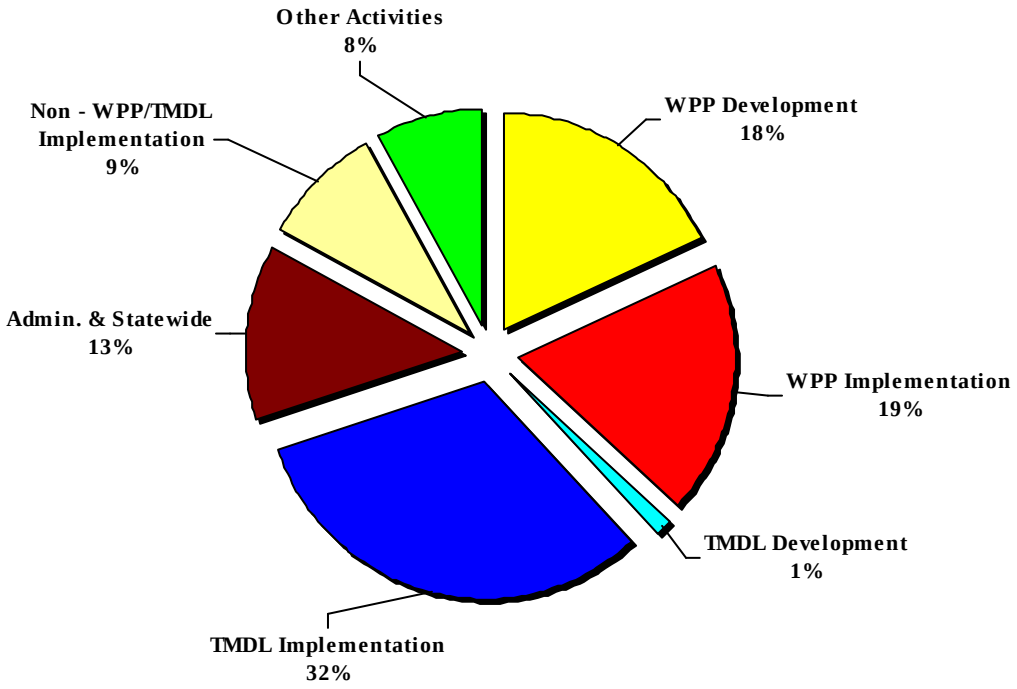


Figure 1 – TSSWCB active Clean Water Act §319(h) grants.

For more information on the TSSWCB Statewide Nonpoint Source Management Program, visit our website at http://www.tsswcb.state.tx.us/managementprogram.

Total Maximum Daily Load Program

The CWA requires Texas to identify lakes, rivers, streams and estuaries failing to meet or not expected to meet water quality standards and not supporting their designated uses (swimming, drinking, aquatic life, etc.). This list of impaired waterbodies is known as the *Texas 303(d) List* and must be submitted to the EPA for review and approval every two years. The *2008 Texas Water Quality Inventory and 303(d) List* was approved by EPA on July 9, 2008. The *2008 List* identifies over 830 impairments (waterbody-pollutant combinations).

The State must then establish a Total Maximum Daily Load (TMDL) for certain waterbodies identified on the *303(d) List*. A TMDL defines the maximum amount of a pollutant that a waterbody can assimilate on a daily basis and still meet water quality standards. The pollution reduction goal set by the TMDL is necessary to restore attainment of the designated use of the impaired waterbody. The maximum amount of pollutant is determined by conducting a detailed water quality assessment that provides the information for a TMDL to allocate pollutant loads between point sources and nonpoint sources. It also takes into account a margin of safety, which reflects uncertainty and future growth.

Based on the environmental target of the TMDL, an Implementation Plan (I-Plan) is then developed that prescribes the measures necessary to mitigate anthropogenic (human-caused) sources of that pollutant in that waterbody. The I-Plan specifies limits for point source dischargers and recommends BMPs for nonpoint sources. It also lays out a schedule for implementation. Together, the TMDL and the I-Plan

serve as the mechanism to reduce the pollutant, restore the full use of the waterbody and remove it from the *303(d) List*. EPA must approve the TMDL, but the I-Plan only requires State approval.

With authority as the lead agency in Texas for planning, implementing, and managing programs and practices for preventing and abating agricultural and silvicultural NPS water pollution, TSSWCB shares responsibility with the TCEQ for the development and implementation of TMDLs. TSSWCB is committed to funding, through federal grants and state appropriations, and collaborating with the TCEQ, on TMDL projects encompassing monitoring, assessment, modeling, planning, education and implementation (Figure 2).

On September 27, 2006, at a joint meeting, the TSSWCB and the TCEQ renewed this partnership and approved a revised *Memorandum of Agreement on Total Maximum Daily Loads, Implementation Plans, and Watershed Protection Plans*. This framework for collaboration between the two agencies describes the programmatic mechanisms employed to develop and implement TMDLs and I-Plans.

On May 24, 2007, the TSSWCB approved a *TSSWCB Policy on Total Maximum Daily Loads* which provides guidance to staff on directing state appropriations for the TMDL Program. TSSWCB is currently administering $1.5 million in state appropriations as TMDL Program grants through 11 projects. Specific project activities include 1) increased analytical infrastructure at public Bacterial Source Tracking laboratories, 2) implementation of agricultural and silvicultural NPS components of TMDL I-Plans, 3) technical assistance for the development of WQMPs on agricultural lands, and 4) the collection and analysis of water quality and land use data for watersheds with impaired waterbodies. A 12th project, leveraged with funding from a CWA §319(h) NPS Grant, has already been completed. Staff are in the process of developing workplans and budgets with collaborating entities to obligate remaining FY2009 funds.

TSSWCB is engaged in implementation activities that support approved I-Plans addressing agricultural or silvicultural NPS load reductions described in adopted TMDLs:

- Aquilla Reservoir – Atrazine (I-Plan Approved 2002)
- Colorado River below E.V. Spence Reservoir – Salinity (I-Plan Approved 2007)
- Lake O' the Pines – Dissolved Oxygen (I-Plan Approved 2008)
- E.V. Spence Reservoir – Salinity (I-Plan Approved 2001)
- North Bosque River – Nutrients (I-Plan Approved 2002)

TSSWCB is collaborating with stakeholders on the development of I-Plans for adopted TMDLs that contain agricultural or silvicultural NPS load reductions:

- Adams and Cow Bayous – Bacteria, Dissolved Oxygen, and pH (TMDL Adopted 2007)
- Clear Creek – Bacteria (TMDL Adopted 2008)
- Gilleland Creek – Bacteria (TMDL Adopted 2007)
- Guadalupe River above Canyon Lake – Bacteria (TMDL Adopted 2007)
- Lower San Antonio River – Bacteria (TMDL Adopted 2008)
- Oso Bay – Bacteria (TMDL Adopted 2007)
- Upper Oyster Creek – Bacteria (TMDL Adopted 2007)

TSSWCB is actively engaged in the development of TMDLs for waterbodies impaired due to known or suspected agricultural or silvicultural NPS pollution:

- Atascosa River – Bacteria

- Copano Bay and Aransas and Mission Rivers – Bacteria
- Dickinson Bayou – Bacteria and Dissolved Oxygen
- Elm and Sandies Creeks – Bacteria and Dissolved Oxygen
- Lake Houston – Bacteria
- Leon River below Proctor Lake – Bacteria
- Middle Texas Coast Oyster Waters – Bacteria
- Oso Creek – Bacteria
- Peach Creek – Bacteria
- Rio Grande below Falcon Reservoir – Bacteria
- Upper Oyster Creek – Dissolved Oxygen
- Upper Trinity River – Bacteria

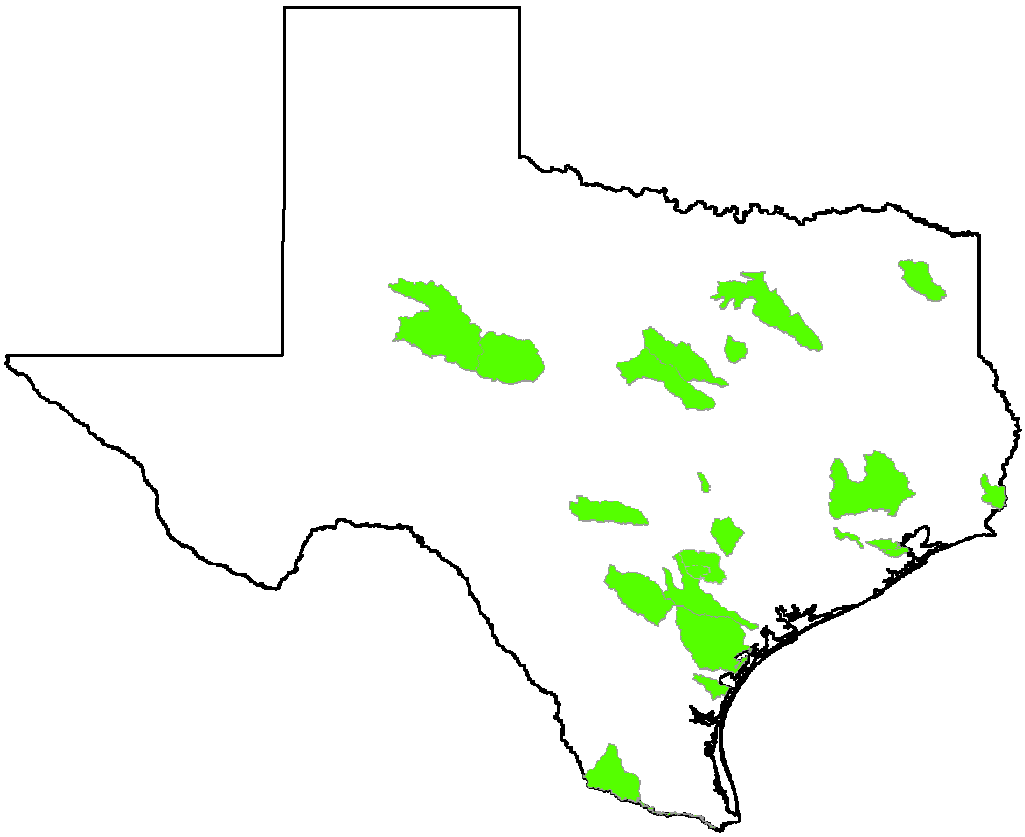


Figure 2 – Map of watersheds where TSSWCB is engaged in developing or implementing TMDLs and I-Plans.

In order to abate agricultural and silvicultural NPS pollution, TMDLs and I-Plans will implement components of other TSSWCB Programs, such as the Water Quality Management Plan Program or the Water Supply Enhancement Program. Additionally, the TSSWCB Clean Water Act §319(h) NPS Grant Program frequently serves as a funding source to implement the agricultural and silvicultural NPS components of I-Plans. These programs are described in detail in other sections of this Report.

For more information on the TSSWCB Total Maximum Daily Load Program, visit our website at http://www.tsswcb.state.tx.us/tmdl.

Task Force on Bacteria Total Maximum Daily Loads

On September 27, 2006, at a joint meeting, the TSSWCB and the TCEQ established a joint technical Task Force on Bacteria TMDLs. The Task Force was charged with:

- examining approaches other states use to develop and implement bacteria TMDLs,
- making recommendations on cost-effective and time-efficient methods for developing TMDLs,
- making recommendations on effective approaches for developing I-Plans,
- evaluating the variety of models and bacterial source tracking methods available for developing TMDLs and I-Plans and recommending under what conditions certain methods are more appropriate, and
- developing a roadmap for further scientific research needed to reduce uncertainty in what we know about how bacteria behave under different water conditions in Texas.

The final version of the Task Force Report was published June 4, 2007. All Task Force materials, including background resource materials, summaries of meetings, all drafts of the Report, and all comments received on the Report, are available at http://twri.tamu.edu/bacteriatmdl/.

The Task Force recommended the use of a Three-Tier Approach for bacteria TMDL and I-Plan development that is designed to be cost-effective, time-efficient, scientifically credible and accountable to watershed stakeholders. The Tiers move through increasingly aggressive levels of data collection and analysis in order to achieve stakeholder consensus on needed load reductions and strategies to achieve those reductions.

On June 29, 2007, at a joint meeting, the TSSWCB and the TCEQ approved the recommendations from the Task Force. The TSSWCB directed staff to work with the staff of the TCEQ to:

- incorporate the principles of the recommendations into an updated joint-agency TMDL guidance document,
- move diligently to expedite the development of bacteria TMDLs that were paused during the work of the Task Force, and
- establish a multi-agency bacteria work group to continue examining the scientific research and development needs identified in the Task Force Report.

TSSWCB staff are currently working to implement these directives. Specifically, TSSWCB staff have completed a full draft of the revised TMDL Program Guidance that incorporates the Task Force recommendations on bacteria TMDLs. Progress on finalizing the guidance document has been suspended while TCEQ completes an internal staff reorganization. TSSWCB staff have also worked with TCEQ staff to resume work on the development of TMDLs paused during the Task Force process, including holding public stakeholder meetings and collecting and analyzing data; although, progress on the development of several of these TMDLs has been further suspended by TCEQ as proposed revisions to the Texas Surface Water Quality Standards may affect the water quality target of the TMDL.

Watershed Protection Plan Program

Watershed Protection Plans (WPPs) are locally-driven projects that serve as a mechanism for voluntarily addressing complex water quality problems that cross multiple jurisdictions. WPPs are coordinated frameworks for implementing prioritized and integrated water quality protection and restoration strategies driven by environmental objectives. Through the WPP process, TSSWCB encourages stakeholders to

holistically address all the sources and causes of impairments and threats to both surface and ground water resources within a watershed.

WPPs serve as tools to better leverage the resources of local governments, state and federal agencies, and non-governmental organizations. WPPs integrate activities and prioritize implementation projects based upon technical merit and benefits to the community, promote a unified approach to seeking funding for implementation, and create a coordinated public communication and education program. Developed and implemented through diverse, well integrated partnerships, a WPP assures the long-term health of the watershed with strategies for protecting unimpaired waters and restoring impaired waters.

WPPs have a variety of ingredients and can take many forms. TSSWCB-sponsored WPPs are consistent with guidelines promulgated by the EPA in 2003. These guidelines describe nine elements fundamental to a potentially successful plan. The TCEQ also sponsors WPPs based on EPA's guidelines. EPA requires certain expenditures through §319(h) grants to be in accordance with a WPP.

TSSWCB provides technical and financial assistance to local stakeholder groups to develop and implement WPPs (Figure 3). Primarily through the CWA §319(h) NPS Grant Program, entities are provided financial assistance necessary to facilitate the WPP process in specific watersheds with significant agricultural or silvicultural NPS pollution. Additionally, TSSWCB staff provide technical assistance in developing WPPs which are funded and facilitated by other entities, such as the TCEQ.

Partnerships with the Texas AgriLife Extension Service, the Texas Water Resources Institute and the TCEQ are resulting in the development of training programs for local stakeholder groups and watershed coordinators. The Texas Watershed Steward Program (http://tws.tamu.edu/) supports the development and implementation of WPPs by promoting a sustainable proactive approach to managing water quality at the local level and by empowering individuals to take leadership roles in the management of water resources. The Texas Watershed Planning Short Course (http://watershedplanning.tamu.edu/) delivers training to watershed coordinators and water professionals which is needed to ensure WPPs are adequately planned, coordinated, implemented and results properly assessed and reported.

On September 27, 2006, at a joint meeting, the TSSWCB and the TCEQ approved a revised *Memorandum of Agreement on Total Maximum Daily Loads, Implementation Plans, and Watershed Protection Plans*. This framework for collaboration between the two agencies describes the programmatic mechanisms employed to develop and implement WPPs.

WPP development projects currently sponsored by TSSWCB (red in Figure 3) have significant agricultural or silvicultural NPS pollution components and are all funded through CWA §319(h) NPS Grants:

- Buck Creek – Texas AgriLife Research and Texas Water Resources Institute
- Concho River – Upper Colorado River Authority
- Geronimo Creek – Guadalupe-Blanco River Authority and Texas AgriLife Extension Service
- Lake Granger – Brazos River Authority and Texas AgriLife Research
- Lampasas River – Texas AgriLife Research
- Leon River – Brazos River Authority
- Pecos River – Texas AgriLife Extension Service and Texas Water Resources Institute
- Plum Creek –Texas AgriLife Extension Service

While WPP development projects sponsored by the TCEQ (purple in Figure 3) have significant water quality issues related to urban NPS pollution or wastewater treatment, most, to varying degrees, have agricultural or silvicultural NPS pollution components:

- Arroyo Colorado – Texas Water Resources Institute
- Bastrop Bayou – Houston-Galveston Area Council
- Brady Creek – Upper Colorado River Authority
- Caddo Lake – Northeast Texas Municipal Water District
- Cibolo Creek – Cibolo Nature Center
- Cypress Creek – River Systems Institute at Texas State University
- Dickinson Bayou – Texas Sea Grant
- Lake Granbury – Brazos River Authority and Texas Water Resources Institute
- Hickory Creek – City of Denton
- Upper San Antonio River – San Antonio River Authority

There are several other watershed planning projects across the state which are funded and sponsored by entities and agencies other than the TSSWCB or the TCEQ (orange in Figure 3). These third-party WPPs may or may not adequately satisfy EPA's nine elements; although, those that do, are eligible to receive CWA §319(h) NPS Grants from the TSSWCB to support implementation of the WPP:

- Armand Bayou – Texas Sea Grant and Trust for Public Land
- Barton Springs – Barton Springs/Edwards Aquifer Conservation District and City of Dripping Springs
- Benbrook Lake – Texas Water Resources Institute and Tarrant Regional Water District
- Lower and Middle Brazos River – Brazos River Authority
- Bridgeport Reservoir – Texas Water Resources Institute and Tarrant Regional Water District
- Caney Creek – Caney Creek Conservation Foundation
- Cedar Creek Reservoir – Texas Water Resources Institute and Tarrant Regional Water District
- Upper Colorado River – Colorado River Municipal Water District
- Chocolate Bayou – Galveston Bay Estuary Program
- Eagle Mountain Reservoir – Texas Water Resources Institute and Tarrant Regional Water District
- Nueces River – U.S. Army Corps of Engineers
- Richland-Chambers Reservoir – Texas Water Resources Institute and Tarrant Regional Water District
- San Bernard River – Friends of the River San Bernard
- South Llano River – Environmental Defense Fund

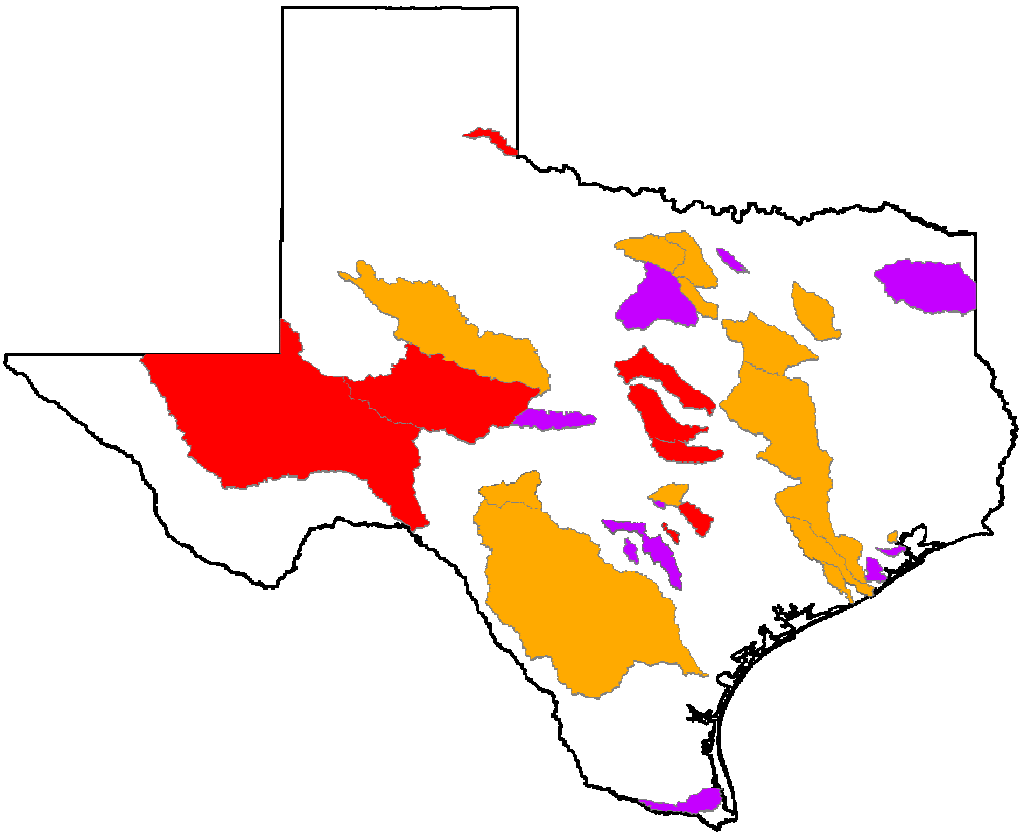


Figure 3 – Map of watersheds where TSSWCB is engaged in developing or implementing WPPs.

In order to abate agricultural and silvicultural NPS pollution, WPPs will implement components of other TSSWCB Programs, such as the Water Quality Management Plan Program or the Water Supply Enhancement Program. Additionally, the TSSWCB CWA §319(h) NPS Grant Program serves as a funding source to implement the agricultural and silvicultural NPS components of WPPs. These programs are described in detail in other sections of this Report.

For more information on the TSSWCB Watershed Protection Plan Program, visit our website at http://www.tsswcb.state.tx.us/wpp.

Water Quality Management Plan Program

In 1993, the Texas Legislature passed Senate Bill 503 that directed the TSSWCB to implement Water Quality Management Plans (WQMPs) in Texas. The agency has implemented more than 6000 WQMPs since the inception of the program.

The WQMP Program is administered from five Regional Offices around the state. A poultry WQMP office was opened in Nacogdoches in January 2005. The Regional Offices are:

Dublin Regional Office
Hale Center Regional Office
Harlingen Regional Office
Mount Pleasant Regional Office
Wharton Regional Office
Poultry Program Office (Nacogdoches)

A WQMP is a site-specific conservation plan developed through (and approved by) SWCDs for agricultural or silvicultural lands. The plan includes appropriate land treatment practices, production practices, management measures, technologies or combinations thereof. The purpose of WQMPs is to achieve a level of pollution prevention or abatement determined by the TSSWCB, in consultation with local soil and water conservation districts that is consistent with state water quality standards.

The TSSWCB selected requirements for a WQMP based on the criteria outlined in the *Field Office Technical Guide (FOTG)*, a publication of the United States Department of Agriculture's Natural Resources Conservation Service (NRCS).

Nutrient management must be included if nutrients are applied. If an animal feeding operation is involved (such as an unpermitted dairy), a WQMP will be planned with practices that individually or in combination with other practices will properly manage animal wastes. Waste utilization will be considered when agricultural wastes are applied. These WQMPs also have subcomponents for irrigation waters, erosion control, and are flexible enough to cater to a wide range of operating systems.

Agricultural and forestry landowners may enter into these cooperative agreements with their local district to control nonpoint source pollution from their operations. While the decision to develop a plan is voluntary, landowners have many reasons to do so. These plans provide for landowners to use best management practices in their operations to protect their most precious agricultural resources by controlling erosion, conserving water, and protecting water quality. In addition, certified plans have the same legal status as Texas Commission on Environmental Quality (TCEQ) point source pollution permits, without having to go through that agency's regulatory process. Landowners may also receive financial incentives to help pay for implementing these plans.

It should be noted that an animal feeding operation that is required by law to operate within the confines of a water quality permit issued by the TCEQ may not participate in the TSSWCB program.

Water Quality Management Plans are especially useful for animal feeding operations. Depending on their size, animal feeding operations may be regulated by TCEQ as a point source or are unregulated and eligible for the TSSWCB's voluntary program. Generally, these feeding operations are classified

according to the number of animals they have, calculated as “animal units”; however, TECQ has adopted rules that provide if you have or exceed a certain number of animals, you will be regulated. Animal feeding operations with more than the number of animals listed in TCEQ rules must apply for a permit. Most animal feeding operations in Texas are not large enough to require a permit, which makes this program critical to protecting Texas’ water quality.

In developing the Water Quality Management Plan, the TSSWCB, SWCDs, and the USDA Natural Resources Conservation Service (NRCS) provide technical assistance to help the landowner meet the criteria of the plan. A plan establishes practices and installations on the farm that adhere to best management practices specific for that area. The various installations that a plan calls for depend on the operation. A farm may include a combination of cropland, dairy cows, poultry, hogs or cattle.

These plans may also include erosion control measures such as terraces or grass waterways; or they may address nutrient management to help landowners avoid over-fertilizing their land, or over-applying animal waste. Although a plan will take into consideration each farm’s unique components, all WQMPs generally attempt to control erosion, conserve water, and protect water quality.

Upon TSSWCB certification of a WQMP, a landowner may apply for a financial incentive that will help pay for implementing the plan. Local districts have varying rates for sharing the cost of plan implementation; however cost-share may not exceed 75% with a maximum $10,000 grant limit per plan. Landowners receiving financial incentive have approximately are now given a specific time period to implement conservation practices, otherwise, their applications are cancelled automatically and the funds are reallocated to another plan. This approach hopefully will reduce the amount of lapsed funds.

The TSSWCB allocates money to local districts for financial incentives based on whether the area has impaired water bodies as determined by TCEQ, or if the TSSWCB had previously designated it as a priority. Most of these financial incentives were appropriated from General Revenue funds. Some plans received financial incentives from federal funds. State appropriations provided to local districts in FY08 amounted to $2,171,740.00 to carry out a WQMP cost-share program in their district.

In addition to certifying WQMPs to ensure that they help abate nonpoint source pollution, the TSSWCB monitors WQMPs to ensure they are properly implemented. Each year, the TSSWCB conducts status reviews on a minimum of 10% of the plans. Additional technical assistance may be offered to a landowner when a WQMP is found noncompliant. In the unlikely case that the landowner does not achieve compliance with the WQMP, the TSSWCB may decertify the plan.

During FY03, the WQMP Program was administered from the TSSWCB office in Temple. The staff reductions in the FY04 budget made it necessary for the program to be reorganized and the Regional Offices activities are now coordinated through the Harlingen Regional Office. Additionally, plan certification authority was shifted from the Temple headquarters to each regional office. This change is already expediting the certification process and reducing postage expenditures, while maintaining the integrity and standards of the program.

The last adjustment involved the complaint process, which was also administered out of the headquarters office during FY03. Headquarters office no longer has an individual to do complaint inspections and all complaints are investigated from the appropriate Regional Office.

Current Status

A total of 827 water quality management plans were certified by the State Board in FY-2008. This was 33% greater than our yearly goal.

District cost-share fund allocations for FY-09 were approved by the State Board in July, 2008. The period for obligating FY-09 cost-share funds ends on April 30, 2009.

At their November, 2008 meeting, the State Board approved final adoption of rule amendments for TAC §523.1-523.4 and 523.6 Basically, the rule amendments simply refine the existing rules, expand the definition of an operating unit and delete the criteria for granting a waiver to receive cost-share assistance a second time based on the expiration of the life expectancy of a previously cost-shared practice.

Lapsed cost-share funds have been reduced by 53% in the last four years. Approximately 12.5% of total cost-share funds are being lapsed statewide at the present time.

Poultry Water Quality Management Plan Initiative

Background

In 1994, the Texas State Soil and Water Conservation Board (TSSWCB) began assisting poultry operations with the establishment of the Northeast Texas - Senate Bill 503 Cost-share Area. Since 1994, over $300,000 of WQMP Program funding has been provided annually to six soil and water conservation districts (SWCDs) in Northeast Texas to address animal feeding operations (AFOs). Shelby SWCD began receiving SB 503 funds in FY 2005 and the Nacogdoches SWCD began receiving SB 503 funds in FY 2007.

In 1995, the TSSWCB initiated three federal Clean Water Act, §319(h) projects to demonstrate composting as a means for dead bird disposal, buffer strips, and proper land application of poultry litter. In 1996, the TSSWCB expanded its efforts by initiating a composting and marketing project. This effort to promote the installation of composters and other means of mortality management on poultry farms resulted in accelerated WQMP development.

In 1997, the Texas Legislature passed Senate Bill 1910, which required all poultry farms to have a TCEQ-approved method of dead bird disposal. The law took effect in March 1998. However, the rules were not adopted and did not take effect until fall 1999. It was during this time that requests for poultry WQMPs significantly increased due to pursuit of cost-share for mandated mortality management. This activity intensified the TSSWCB's poultry initiative.

In 1999, in response to water quality concerns and the initiation of TMDL development in the Big Cypress/Lake O' the Pines watershed, the TSSWCB began using §319 funds for cost-share in the area in addition to the Senate Bill 503 cost-share funds already directed to the watershed. The current implementation process of the TMDL has shown that the WQMP program has resulted in reduced nutrient loadings in the watershed. Due to rising concerns in nearby watersheds, the TSSWCB also included the Sam Rayburn and Toledo Bend Reservoir watersheds in its initiative in 1999. The TSSWCB expanded the poultry initiative again in 2001 to the Gonzales area.

Beginning in 2001, seven soil and water conservation district (SWCD) technicians were employed under federal Clean Water Act §319 contracts to develop WQMPs in poultry producing areas. Six of those contracts expired in 2004 and the seventh expired in 2005. An eighth §319 district technician was hired in 2003 with the Shelby SWCD and that contract expired in August 2007. Two more positions were hired by local SWCDs in FY 2007 to help with WQMP development for the Sanderson Farms expansion in the Waco area. Those contracts have also expired.

In 2001, the 77th Legislature passed Senate Bill 1339, which requires all poultry facilities in Texas to operate in accordance with a WQMP certified by the TSSWCB. The review and certification process assures the plan includes appropriate practices, management measures, and schedules of implementation.

This law provided for a staggered-schedule of deadlines by which each producer, depending on their initial date of operation, must have requested the development of a WQMP from their soil and water conservation district. Any commercial poultry facility constructed after January 1, 2002 is required to have a WQMP prior to the receipt of any birds. All other commercial poultry facilities were required to have a WQMP no later than December 31, 2007.

In October 2007, two technicians were hired by local Soil and Water Conservation Districts, with one expiring in August 2008 and the other in August 2009. Because of expiring contracts and difficulty retaining temporary contract SWCD staff, TSSWCB submitted a 2008-2009 Legislative Appropriations Request for 4 additional FTEs to replace the expiring SWCD technician positions, so as to continue technical assistance for poultry producers in these areas. The budget request was approved by the 80th Texas Legislature and took effect September 1, 2007. The four new positions are located in the four most heavily poultry populated areas of the state which are Shelby, Nacogdoches, Gonzales, and Leon Counties and they also serve the poultry producers in surrounding counties. The 4 new positions are part of the TSSWCB Poultry Program reporting to the Nacogdoches Poultry Office.

Due to changes made by the U.S. Environmental Protection Agency (EPA) to the federal regulations for concentrated animal feeding operations (CAFOs), the Texas Commission on Environmental Quality (TCEQ) adopted a rule change in 2004 that required dry-litter poultry operations larger than 125,000 broilers or pullets, 82,000 layers or breeders, or 55,000 turkeys to operate under a water quality permit. However, due to a federal court decision by the U.S. 2nd Circuit Court of Appeals in February 2005, the EPA issued a notice that the date by which a permit and a Nutrient Management Plan must be obtained was extended to July 31, 2007 and EPA has since proposed that date be extended to February 27, 2009. Also in compliance with the court decision, the EPA released additional proposed rule changes in June 2006. Under the proposed new rule, farms that do not actually discharge wastes to waters of the U.S. are not required to apply for permit coverage, thereby eliminating the need for dry-litter operations to apply. In advance of EPA's final rule, TCEQ made a rule change in September 2006 to allow CAFO size dry-litter poultry farms an exemption to permitting if they obtain and follow a WQMP certified by TSSWCB. A supplemental guidance document is available from the TSSWCB for poultry producers that provides requirements in addition to the WQMP that are necessary to stay in compliance with the CAFO rules. Meetings were held in seven different poultry producing locations in January, February, and June 2008 to inform poultry producers of those additional requirements.

Current Issues

Currently, the TSSWCB is aware of 1349 total dry-litter poultry farms, of which 522 (39%) are defined as Concentrated Animal Feeding Operations (CAFO). However, there is an ongoing challenge of identifying new poultry farms continually being constructed and put into production, learning of farms that have changed bird placement numbers, and locating other poultry farms not yet identified. Sanderson Farms has nearly completed its new contract farms in the Waco area to supply a new processing plant that began operation in August 2007. TSSWCB staff has developed or is currently developing WQMPs for all of the known proposed new farms

In FY 2009, staff in the Poultry WQMP Program continues to develop, update, and review Water Quality Management Plans for poultry producers and provide assistance with all issues related to the Poultry WQMP Program. The Program Supervisor and two Natural Resource Specialists staff the Nacogdoches Poultry Office. There are also three Natural Resource Specialists located in Center, Centerville, and Gonzales. In addition, two technicians continue to work for local Soil & Water Conservation Districts (SWCD) in Nacogdoches and Shelby Counties to assist the Poultry WQMP Program in the Nacogdoches area. Approximately 550 (41%) of the estimated 1349 dry-litter poultry farms in Texas are located in an eight-county area surrounding Nacogdoches. About 118 (21%) of the 550 farms in the 8-county area are large enough to be defined as Concentrated Animal Feeding Operations (CAFO), which require inspections conducted by TSSWCB staff which could result in needed revisions to their WQMP. In addition, the other existing WQMPs are reviewed regularly for needed updates and revisions. The office also assists other SWCDs in the state with poultry WQMP development and revision as needed.

Comprehensive Nutrient Management Plan Program

The TSSWCB Comprehensive Nutrient Management Plan (CNMP) Program was developed in response to a control measure recommended in the TMDL *I-Plan for Soluble Reactive Phosphorus in the North Bosque River Watershed*. The I-Plan recommended that dairy producers in the watershed voluntarily develop and implement a CNMP; however, the TCEQ adopted a rule that made the recommendation a requirement. The CNMP Program is confined to the North Bosque River and Leon River watersheds by TSSWCB rule.

A CNMP is a resource management plan containing a grouping of conservation practices and management activities which, when combined into a conservation system, will help ensure that both agricultural production goals and natural resource concerns dealing with nutrient and organic by-products and their adverse impacts on water quality are achieved. A CNMP incorporates practices to utilize animal manure and organic by-products as a beneficial resource. The TSSWCB selected requirements for a CNMP based on the TCEQ rules and regulations required for permitted and unpermitted animal feeding operations and criteria outlined in the Field Office Technical Guide (FOTG), a publication of the United States Department of Agriculture's Natural Resources Conservation Service (NRCS). The FOTG represents the best available technology and is already tailored to meet the needs of soil and water conservation districts all over the nation. To be certified by the TSSWCB, the local SWCD, the producer, and the local NRCS Field Office must approve a CNMP.

As of December 15, 2008 the TSSWCB has certified 90 of the 90 CNMPs that have been submitted for approval. The TSSWCB, NRCS, and the Texas Association of Dairymen have held numerous meetings with dairy producers and technical service providers since January 2006 in an effort to facilitate development and submittal of CNMPs.

Statewide Bacterial Water Quality Impairment Reduction Initiative

According to the *2008 Texas Water Quality Inventory and 303(d) List*, two hundred ninety-five (295) waterbodies are impaired because they do not meet surface water quality standards for bacteria established to protect contact recreation use (in freshwater or saltwater) and/or oyster water use. The magnitude of bacteria impairments in Texas is evident when compared to all other types of water quality impairments. These bacteria impairments represent over 48% of all impairments on the *303(d) List*.

As the lead agency in Texas responsible for the prevention, abatement, and management of NPS pollution from agricultural and/or silvicultural activities, the TSSWCB plays a critical role in addressing water quality impairments for bacteria. Many of these impairments have been attributed, at least in part, to grazing livestock or animal feeding operations.

In order to address these bacteria impairments, TSSWCB has continued to strengthen partnerships with industry commodity organizations including the Texas Farm Bureau, the Texas and Southwestern Cattle Raisers Association, the Independent Cattlemen's Association of Texas, the Texas Poultry Federation, the Texas Association of Dairymen and the Texas Pork Producers Association.

Working with the USDA Natural Resources Conservation Service and the State Technical Committee, an Environmental Quality Incentives Program (EQIP) State Resource Concern for Water Quality in South Central Texas was established to provide livestock producers in the Peach Creek, Elm and Sandies Creeks, Atascosa River and Lower San Antonio River watersheds financial assistance in implementing BMPs to prevent and abate NPS pollution from their operations which may be contributing to the bacterial water quality impairment in those watersheds. This financial assistance is leverage with technical assistance provided by the local SWCDs through CWA §319(h) NPS Grants from TSSWCB.

The magnitude of water quality impairments from excessive bacteria in Texas has resulted in a marked increase in the number of bacteria-related education, assessment, demonstration, and implementation projects initiated and directed by the TSSWCB. Most of these projects are funded through the agency's CWA §319(h) NP Grant Program, but the agency has utilized other funding mechanisms such as the TSSWCB TMDL Program and the USDA NRCS Grassland Reserve Program. Nearly two dozen projects are currently focused on the abatement of bacterial NPS pollution.

Critical to solving the breadth of bacteria impairments statewide is ensuring that the water quality standards designed to protect recreation use of waterbodies are appropriate and credible. Major revisions to the Texas Surface Water Quality Standards are currently being drafted by the TCEQ, including the establishment of numeric nutrient criteria for reservoirs and significant modifications to contact recreation use and bacteria criteria. TSSWCB is engaged in this process. TCEQ adoption of any changes to the Standards is not expected until mid-2009. EPA must also approve any changes.

For more information on the TSSWCB Statewide Bacterial Water Quality Impairment Reduction Initiative, visit our website at
http://www.tsswcb.state.tx.us/managementprogram/initiatives/bacteria.

Coastal Management Program

The Texas Coastal Management Program (CMP) was created to coordinate state, local, and federal programs for the management of Texas coastal resources. The program brings federal Coastal Zone Management Act (CZMA) funds to Texas to implement projects and program activities for a wide variety of purposes. The Coastal Coordination Council (CCC) administers the CMP; the TSSWCB is a statutorily-authorized member of the CCC.

The CCC is charged with adopting uniform goals and policies to guide decision-making by all entities regulating or managing natural resource use within the Texas coastal area. The CCC reviews significant actions taken or authorized by state agencies and subdivisions that may adversely affect coastal natural resources to determine consistency with CMP goals and policies. In addition, the CCC oversees the CMP Grants Program and the Small Business and Individual Permitting Assistance Program.

The Coastal Zone Act Reauthorization Amendments (CZARA), §6217, requires each State with an approved coastal zone management program (CMP) to develop a federally approvable program to control coastal NPS pollution. The CCC appointed a Coastal NPS Pollution Control Program workgroup to develop this document. The National Oceanic and Atmospheric Administration (NOAA) and the EPA jointly administer the program at the federal level. In Texas, the TSSWCB and the TCEQ hold primary responsibility for the program's development and implementation.

Section 6217 calls for implementation of management measures (§6217(g)) that will control significant nonpoint sources of pollution to coastal waters. Six source categories are addressed by these measures: agriculture, forestry, urban and developing areas, marinas, wetland/riparian areas, and hydromodification. States can use voluntary approaches combined with existing state authorities to achieve implementation of management measures. However, if the voluntary mechanisms are not effective, states must have backup enforcement authorities in place to ensure that management measures are implemented.

Texas submitted the *Texas Coastal NPS Pollution Control Program* to EPA and NOAA in December 1998. In July 2003, NOAA and EPA issued conditional approval of the Texas Coastal NPS Program. The agricultural and silvicultural portions of the program were approved without conditions. Texas has five years to meet the five remaining conditions to gain full approval of the program. The NPS Work Group has developed a list of potential options to address the remaining conditions and submitted it to NOAA and EPA in July, 2008 for approval.

The TSSWCB is responsible for implementing the agricultural and silvicultural managemen t measures of the program. Mechanisms the TSSWCB uses to abate agricultural and silvicultural NPS pollution in the coastal zone include: the agency's Water Quality Management Plan Program, the CWA §319(h) NPS Grant Program, the Total Maximum Daily Load Program, and the Watershed Protection Plan Program.

For over eight years, more than $300,000 in state appropriations has been spent annually in the coastal zone to provide financial assistance through SWCDs to implement about 2,000 WQMPs on agricultural land.

In addition, many of the WPPs and TMDLs that the TSSWCB is engaged in are in the coastal zone. WPPs being developed or implemented in the Coastal Zone include Arroyo Colorado, Bastrop Bayou, Armand Bayou and Dickinson Bayou. TMDLs being developed or implemented in the Coastal Zone include

Adams and Cow Bayous, Clear Creek, Copano Bay and Aransas and Mission Rivers, Dickinson Bayou, and Oso Bay and Creek.

Implementation of the silvicultural management measures in the coastal zone is through a CWA §319 grant to the Texas Forest Service.

For more information on the Texas Coastal Nonpoint Source Pollution Control Program, visit our website at http://www.tsswcb.state.tx.us/coastalnps.

Information Technology

Protecting Regional Office Data With Encrypted Offsite Backups

Capping off a project begun earlier in 2008, the TSSWCB completed a rollout of new automated systems at its regional offices that allow for the encryption and offsite storage of critical data.

This system provides backups of office file servers and selected desktop PC data, which is backed up to an enclosed hard drive. This storage medium allows for ease of transportation offsite and provides a redundancy and level of data protection previously not available to agency regional offices.

The data on the backup media is encrypted using strong encryption (256-bit Advanced Encryption Standard) mitigating the dangers of lost or stolen media.

This project was implemented using commodity hardware and open source software, resulting in no cost to the agency for software procurement or maintenance and minimal cost for the required hardware.

T0CA Upgrade Work To Provide Enhanced Data Availability

Agency staff continued work on an important upgrade to T0CA, the agency's internal, web-based system for tracking and reporting on water quality management plan program data.

The enhancements this work is set to provide include new areas of data recording and reporting capabilities requested by management. Development is being undertaken to provide a user-friendly, stable and secure addition to T0CA.

As with the original system, the additions to T0CA are being made using open source software components, at zero cost to the agency for software purchases, licensing or maintenance.

Server Upgrades At Regional Offices

Staff recently completed a rollout of new servers at its regional offices to provide new data services and improved service reliability for these locations.

New capabilities resulting from this project include a range of previously unavailable services for these offices and will serve to help IT staff better provide for the needs of staff in these locations.

Important service additions include: improved remote access to employee desktop PCs, the ability to provide for upgrades to other network components such as wireless routers, the ability to provide VPN

services on request and the ability to implement improved automated backup systems of networked data stores.

An additional important enhancement provided by this work was an upgrade to network perimeter security through an improved firewalling system. The firewall systems used by the TSSWCB have been vetted through Texas Department of Information Resources (DIR) controlled penetration tests and have proven capable of protecting internal agency networks from outside threats.

The new systems were purchased from DIR-approved vendors and were composed of commodity components powered by open source software, resulting in minimal cost to the agency.

PC Hardware Upgrades

The second half of 2008 also saw a continuation of the work to replace the oldest and most problematic agency desktop PCs with more capable and reliable units. This work was part of a continuous process that aims to lessen the risk of unacceptable levels of downtime that could occur following PC hardware failures. Each of the machines replaced was at or, in most cases, significantly beyond the PC life cycle recommendations from the Texas Department of Information Resources (DIR).All purchases were made in accordance with DIR guidelines through a DIR-approved vendor. Most purchases were made using DIR's Buyer's Alert Program, which resulted in notable cost-savings during the purchase phase of this work.

Public Information /Education Report

General Overview

The purpose of the public information/education program is to provide leadership and coordination of information/education programs relating to the agency and district programs, services, operations and resources. The TSSWCB prepares and disseminates public information relative to the agency and district functions, programs, events and accomplishments for the public and to farmers and ranchers. TSSWCB staff coordinates seminars, conferences, workshops, displays at trade shows and training for district directors and district bookkeepers, conservation professionals, youth groups and other entities. Staff provides guidance to districts with their own individual information/education programs as well as regional and state information/education programs initiated by districts. Staff prepares and disseminates press releases, news stories and printed promotional products. The TSSWCB monitors the use of the publications and use of information. Staff represents the agency as needed with various information/education groups and entities. The TSSWCB has a cooperative agreement with the Association of Texas Soil and Water Conservation Districts to provide assistance and help coordinate district involvement and participation with Association’s Information/Education Committee and its programs.

2008 Summer Teacher Workshops

Several teacher workshops are held each summer by soil and water conservation districts in cooperation with the TSSWCB on conservation and natural resource issues. The Texas Environmental Education Advisory Committee to the Texas Education Agency approves the content of these workshops, sponsored by the TSSWCB. As an approved Environmental Education Professional Development Provider, teachers

are able to get 16 credit hours toward their required continuing education units (CEUs) for recertification while experiencing nature and the outdoors.

Pedernales SWCD hosted a Teachers Workshop in Johnson City, Texas at the Franklin Family Ranch on June, 2008. Topics covered were soils, the water cycle, plants in the Texas Hill Country, prescribed burning, and wildlife biology.

2009 Texas Conservation Awards Program

Each year, the Texas State Soil and Water Conservation Board and the Association of Texas Soil and Water Conservation Districts co-sponsor the Texas Conservation Awards Program to recognize and honor those who dedicate themselves and their talents to the conservation and wise use of renewable natural resources. The 2009 Awards Program marks the 31st year of this joint program.

Local districts select their outstanding individuals as winners and submit them by mid-February each year for regional judging. Those selected as regional winners are honored each May at regional Awards Banquets. From these regional winners, a state winner is selected for the Outstanding Conservation Districts, Outstanding Conservation Teacher, Poster Contest, and the Essay Contest. These individuals are invited to the Annual State Meeting for recognition.

The conservation awards program provides competition and incentives to expand and improve conservation efforts, resource development, and increase the wise utilization of renewable natural resources. As a result, soil and water conservation districts, and both rural and urban citizens of Texas are benefited.

Soil and water conservation districts may enter their local recognition honorees in any of 10 categories (East Texas has an additional category of Forestry Conservationist), depending on appropriateness to the category description. For the youth of the district, there is also a poster and essay contest. The categories and a brief description of each are:

Outstanding Conservation District

Awarded to the winning soil and water conservation district in each area for the most outstanding program during the past fiscal year.

Resident Conservation Rancher

Awarded to the outstanding resident conservation rancher in each area. They must be a resident of the district, perform ranching activities within the district and be a cooperator with the district from which the entry was submitted. The rancher may have other business or professional interests.

Resident Conservation Farmer

Awarded to the outstanding resident conservation farmer in each area. They must be a resident of the district, perform farming activities within the district, and be a cooperator with the district from which the entry was submitted. The farmer may have other business or professional interests.

Absentee Conservation Farmer/Rancher

Awarded to the outstanding absentee conservation farmer or rancher in each area. They must reside outside the district, but operate farming or ranching activities within the district and be a cooperator with the district from which the entry was submitted. The person may have other business or professional interests.

Water Quality Management Plan

Awarded to the outstanding Water Quality Management Plan recipient in each area. They must be a district cooperator who has a district approved Water Quality Management Plan and has incorporated water quality into their farming or ranching activities and soil and water conservation work.

Essay Contest –Two Categories (Those 13 and under and those 14 to 18 years of age)

Essays (topic: "Celebrate Conservation") are to be submitted to local soil and water conservation districts for local judging. Each local district will judge the entries and submit three essays to the TSSWCB for competition on the area level. Plaques will be awarded to 1st, 2nd and 3rd place winners on the area level and state winners will be selected from the area winners. This contest is open to students, in two categories, one for those ages 13 and under, and the other category for those ages 14 to 18 years of age and does not jeopardize Texas University Interscholastic League eligibility.

Poster Contest

Posters should address one of the following subjects: "Food for the Future" or "The Living Soil". Posters shall be submitted to local soil and water conservation districts for local judging. Each local district will judge the entries and submit three posters to the TSSWCB for competition on the area level. Plaques will be awarded to the 1st, 2nd and 3rd place winners on the area level and state winners will be selected from the area winners. This contest is open to students, 12 years and under, and does not jeopardize Texas University Interscholastic League eligibility.

Business/Professional Individual

Awarded to the outstanding man or woman in the business community who has rendered the most unselfish conservation service in each area. Representatives of the news media (radio, television, newspaper, magazines, etc) who contribute to or provide support for conservation shall also be considered eligible for this award. (This award is not for individual conservation practices or individuals who, because of employment, assist with or augment the work of the soil and water conservation district.)

Conservation Teacher

Awarded to the outstanding teacher of conservation in schools in each area. Teachers of all grade levels are eligible for this award.

Wildlife Conservationist

Awarded to the outstanding wildlife conservationist in each area. They must be a district cooperator who has incorporated wildlife conservation into their farming and ranching activities.

Conservation Homemaker

Awarded to the outstanding conservation homemaker in each area. The homemaker and or family must own or operate a farm or ranch, be a district cooperator and have knowledge of the conservation programs being implemented.

Conservation District Employee

Awarded to the outstanding soil and water conservation district employee who exhibits a degree of knowledge, skill, ability, and leadership that clearly results in superior job performance far above the basic requirements of the position.

Forestry Conservationist (Area IV only)

Awarded to the outstanding forestry conservationist for the most outstanding farm forestry conservation program in the commercial forest areas of Texas. They must be a district cooperator or an individual who has implemented conservation practices on their land and has done missionary work for conservation and the district program.

Soil & Water Stewardship Public Speaking Contest

The Soil & Water Stewardship Public Speaking Contest is open to high school FFA students interested in soil, water and related renewable natural resource conservation. The contest is aimed at broadening students' interest and knowledge of conservation and how individuals must depend on and take care of the world around them for survival. The contest is coordinated through the Texas FFA, with contests at the local, area and state level. Local winners compete in the 10 state FFA areas and the first and second place winners at the area level compete for the state title. The theme of the 2009 contest is “Dig It! The Secrets of Soil”.

To prepare for the contest, students were to consult with their Agriculture Science teacher and work with their local soil and water conservation district. Students are encouraged to visit with their local SWCD to find out more about conservation practices in their area.

This project is a partnership between the Texas FFA, the Vocational Agriculture Teacher's Association of Texas, The Texas State Soil and Water Conservation Board, and the Association of Texas Soil and Water Conservation Districts. The State Winner of the Soil and Water Stewardship Public Speaking Contest is invited to attend the Annual State Meeting each year and asked to deliver their winning address.

Wildlife Alliance For Youth

The Wildlife Alliance for Youth (WAY) contests offer opportunities at the local district level for 4-H and FFA students to demonstrate their knowledge of the outdoors on wildlife habitat and management,

wildlife laws, sportsmanship and other factual information on wildlife. The program offers scholarships to contest winners. It is a powerful tool for students to become involved in conservation and obtain an appreciation for wildlife.

Agriculture Science students, who compete in the WAY Contest, first acquire the foundational knowledge and skills for this event through the Agscience 381 - Wildlife and Recreation Curriculum. The WAY contests address the following nine subject areas in Wildlife and Recreation Management: Wildlife Plant Identification; Wildlife Plant Preferences; Wildlife Biological Facts; Wildlife Habitat; Habitat Management; Game Laws; Hunter and Boater Safety; Compass and Pacing; and Identification Techniques. FFA and 4-H youth should have an understanding of these subject areas before they compete.

The WAY contests are held in the five Texas State Soil and Water Conservation Board areas. Area IV (East Texas) holds their contest in the fall. Area V (North Central), Area I (Panhandle), Area II (West Texas) and Area III (South Texas) all hold their contests in the spring. Each team is certified to the area level by their local SWCD. The WAY State Contest is held each year in one of the geographical areas of the state. Approximately 2,400 youth participate in the statewide competition.

The TSSWCB is the lead agency in sponsoring and organizing the contests. The Association of Texas Soil and Water Conservation Districts, USDA- Natural Resources Conservation Service, Texas Parks and Wildlife Commission, Cooperative Extension service, and the Texas Education Agency, along with local soil and water conservation districts (SWCD), all partner in the success of the youth organization.

State Woodland Clinic and Contest

The Texas State Woodland Clinic and Contest is held annually in the month of April. It is a joint effort between local soil and water conservation districts, Stephen F. Austin University School of Forestry and the NRCS-USDA.

The contest is an opportunity for 4-H and FFA youth to demonstrate their expertise in different aspects of forestry management and skills in identification of needed practices and management techniques. Competition is between teams composed of four members representing either a 4-H Club or a FFA Chapter. Prior to the state contest several local districts conduct contests for 4-H Clubs and FFA Chapters within their district and the surrounding area.

The contest began in the late 1950s and was initiated by local SWCDs and timber industry personnel to develop forestry and woodland curriculum in schools in the commercial timber area of the state (East Texas Piney Woods). The clinic and contest have experienced widespread popularity and now has participation from outside of the commercial timber area on a regular basis. The state participation level for teams averages around 55 teams per year, with the vast majority of teams being composed of FFA Chapters. Winners at the state level are eligible to participate in the four states regional woodland contest held each May in one of four states. Texas, Louisiana, Arkansas and Oklahoma host the regional contest on a rotational basis.

Regional Woodland Contest

The four states regional woodland contest is sponsored by soil and water conservation districts in each of the four states with program and technical support provided by USDA-NRCS and Resource Conservation

and Development (RC&D), state organizations and industry personnel. The soil and water conservation districts in Texas hosted the first four states or southern regional woodland contest in 1984.

Each state is allowed to send a maximum of six teams to the regional contest. Each state has a competition that determines the six teams from that state that may enter in the regional contest. Those teams may be composed of individuals representing either a 4-H Club or an FFA Chapter.

Conservation Education Video Library

The Association of Texas Soil and Water Conservation Districts has established and updated a conservation related video library that is maintained by TSSWCB staff on their behalf for the benefit of local districts and educators. Currently, there over 200 conservation-related videos in the library that are available to districts and teachers which includes19 new titles in DVD format. The Association of Texas Soil and Water Conservation Districts' Public Information/Education Committee pays the first transit postage costs to mail the video(s) to the requester. Postage for returning will be the responsibility of the borrower and all videos must be insured upon return. Borrowing privileges are for a length of two weeks and must be returned upon date specified by the librarian. Videos can be ordered through your local soil and water conservation district or by contacting the TSSWCB. From July to December, there have been 29 videos and 1 DVD of various titles loaned out to districts and teachers across the state.

Nonpoint Source (NPS) Pollution Watershed Flow Model

The NPS model is a hands-on representation of a landscape that allows students to understand how water sources can become polluted from nonpoint sources. The plastic landscape structure has industrial, undeveloped, agricultural, and residential and roadway features complete with individual houses, trees, cars, tractors and cows. When "rain" falls on the model, the runoff flows into a city lake. Using various products to add color to the water, the model demonstrates how potential pollutants are picked up by run-off.

The model is a layout of a watershed that includes all the factors that may contribute to polluting our water. (Urban features such as: factories, parking lots, construction sites, lawn chemicals and golf courses and Rural features such as: forested land, dairies, feedlots, cropland and pastureland). To demonstrate how each type of potential pollutant can enter a water body Kool-Aid and cocoa are used to color “runoff”. Grape Kool-Aid is used to represent pollution from factories and oil from parking lots and roads. Orange Kool-aid represents pollution from lawn chemicals, golf courses, and cropland and pastureland chemicals. Cocoa is used to represent pollution from construction sites, forested land, dairies and feedlots. The Kool-aid and Cocoa are sprinkled on the model in the areas that represent each type of pollutant. Once all the pollutants are sprinkled on the model a spray bottle with water is use to represent rainfall. As the pollutants get wet and start to runoff the students can see how the water carries them to the streams and into the lake where we get our drinking water. Once all the pollutants have run into the lake the students can see how these factors have the potential to make surface waters unattractive and unsafe. This demonstration leads to a discussion about how to protect the water quality and prevent our water from looking like the model.

WATER CONSERVATION AND ENHANCEMENT PROGRAM STATUS REPORT

BACKGROUND:

The 80th Legislature continued funding for the Water Enhancement Program by providing $1,848,927.00 in General Revenue Funds in FY08. These funds were directed to be used for continuation of brush control projects designated by the Soil and Water Conservation Board.

- The TSSWCB staff and other professionals have reviewed current water enhancement project throughout the State identifying the highest water yielding areas of each project with the assistance on Ken Rainwater PhD., P.E., BCEE Director, Water Resource Texas Tech University.

- Provided the following SWCD with Brush Program Updates or Brush Program Assistance

  Area 1 Districts
  Dawson County SWCD — Rio Blanco SWCD
  Upper Colorado SWCD — McClellan Creek SWCD

  Area 2 Districts
  North Concho River SWCD — Nolan County SWCD
  Middle Concho SWCD — Eldorado-Divide SWCD
  Tom Green County SWCD — Pedernales SWCD
  Mitchell County SWCD — Gillispie County SWCD
  Runnels SWCD — Pecos County SWCD
  Middle Clear Fork SWCD — Midland SWCD
  Trans Pecos SWCD — Sandhills SWCD
  Howard County SWCD

  Area 3
  McMullen County SWCD — LaSalle County SWCD
  Caldwell/ Travis SWCD — Webb County SWCD
  Waters Davis SWCD

  Area 5
  Archer County SWCD
  Lower Clear Fork/Brazos SWCD
  Pecan Bayou SWCD

- Evaluate pending application sub basin criteria from all projects

- Assisted Guadalupe Blanco River Authority with potential areas for Water Enhancement Project

- Assisted Corp of Engineers with planning of water enhancement plan for O.C. Fisher and spraying of Salt Cedar

- Assist Canadian River Municipal Water Authority with Salt Cedar Project

- Discuss proposal for project with the White River Municipal Water District for treating Salt Cedar
- Met with Rep. Swinford to discuss the upcoming Legislative session
- Conference call with National Invasive Species coordinator concern requirements for Texas Invasive Species Council
- Presented presentation about Water Enhancement Program to the City of San Angelo Water Advisory Board
- Assist Sen. Wentworth Rep. Hilderbran's office in developing Guadalupe Watershed project
- Attended Legislative Conference in San Angelo and attendees included Speaker Tom Craddick, Rep. Aycock, Rep. Darby, Rep. Chisum, Senator Duncan, Rep. Heflin, and Rep. Hilderbran
- Provided information to Rep. Chisum, Rep Swinford and Rep. Darby on the Texas Invasive Species Coordinating Committee
- Review Texas Invasive Species Council with Chairman of Appropriations and other Representatives and Senators at the Capital
- Hosted Governors Drought Preparedness Committee in San Angelo and participated in field day at O.C. Fisher Reservoir
- Assist TCEQ with Brush rider concerning water yield in State Brush Projects
- Assisted Upper Colorado River Authority with Concho River Water Protection Plan

2008 FISCAL REPORT

The sum total for appropriation year 2008 was $19,814,243.20. This total includes General State Revenues of $12,380,015, Federal Revenues of $7,215,402.46, net cash transfers of $22,125.74, and special appropriations of $196,700.

There were five strategies and two special appropriations funded in 2008 as follows:

1.	Soil and Water Conservation Assistance	$4,702,930.85	23.7%
2.	Non Point Source Management Plan Program	$7,436,187.98	37.5%
3.	Water Quality Management Plan Program	$4,431,944.91	22.4%
4.	Water Supply Enhancement Program	$2,517,104.86	12.7%
5.	Indirect Administration	$529,374.60	2.7%
6.	Acquisition of Info Resources Technology	$38,700.00	0.2%
7.	District Legal Fees and Liability Insurance	$158,000.00	0.8%
	Total	$19,814,243.20	100%

Lapses for end of year were as follows:

1. $123,735.72 for District Fees and Liability Insurance.
2. $43,293.00 for Pecos River Ecosystem Project.
3. $18,133.20 for Operating Budget Items.

This summary is followed by a detailed report for the year overall and for each strategy.

Year End Summary
Appropriation Year 2008

1. **Regular Appropriations**

Appropriation Original Budget	$	12,380,015.00
Transfers Out	$	(612,957.62)
Transfers In	$	635,083.36
Cash Revenues	$	7,215,402.46
Appropriation Cash Available	**$**	**19,617,543.20**
Operating Budget Item		
Salaries and Wages	$	(3,103,155.32)
Other Personnel Costs	$	(120,599.30)
Professional Fees and Services	$	(51,978.03)
Fuels and Lubricants	$	(51,585.77)
Consumable Supplies	$	(32,915.87)
Utilities	$	(76,216.89)
Travel	$	(357,709.81)
Rent-Building	$	(174,698.35)
Rent-Machine and Other	$	(32,004.83)
Other Operating Expense	$	(338,772.97)
Capital Expense	$	(23,987.48)
Lapse	$	(61,426.20)
Grants - State Funded	$	(6,017,895.26)
Grants - Federal Funded	$	(5,654,427.56)
Cost - Share Obligations	$	(3,520,169.56)
Obligations	**$**	**(19,617,543.20)**

2. **Special Appropriations**

Acquisition of Info Resource Technology	$	38,700.00
District Legal Fees and Liability Insurance	$	158,000.00
Appropriation Cash Available	**$**	**196,700.00**
Cash Expenditures	$	(67,818.18)
Unexpended Balance Forward to AY09	$	(5,146.10)
Lapse	$	(123,735.72)
Obligations	**$**	**(196,700.00)**

Soil and Water Conservation Assistance
Appropriation Year 2008

Appropriation Original Budget	$	3,595,502.00
Transfers Out		
A0000965 Appropriation Transfer	$	(26,000.00)
A0000800 Capital Budget	$	(16,000.00)
Subtotal Transfers Out	$	(42,000.00)
Transfers In		
A0000803 Appropriation Transfer	$	170,594.00
A0000957 08 Salary Increase Adj.	$	12,645.00
A0000961 08 BRP Adj.	$	6,161.16
A0000962 Appropriation Transfer	$	30,000.00
A0000963 Appropriation Transfer	$	177,000.00
A0000964 Appropriation Transfer	$	66,000.00
A0000966 Appropriation Transfer	$	1,750.62
Subtotal Transfers In	$	464,150.78
Cash Revenues		
Refund of Expenditure FY07 DM&PD	$	13,273.03
Ag Water Conservation Reimbursement	$	92,334.46
Defensive Driving Fee	$	87.00
Federal Funds	$	579,583.58
Subtotal Cash Revenues	$	685,278.07
Appropriation Cash Available	**$**	**4,702,930.85**
Operating Budget Item		
Salaries and Wages	$	(726,227.78)
Other Personnel Costs	$	(28,181.16)
Professional Fees and Services	$	(2,021.31)
Fuels and Lubricants	$	(100.62)
Consumable Supplies	$	(2,709.85)
Utilities	$	(18,029.11)
Travel	$	(192,874.39)
Rent-Building	$	(16,041.12)
Rent-Machine and Other	$	(4,031.75)
Other Operating Expense	$	(24,044.78)
Lapse	$	-
District Assistance Grants		
Conservation Planning Assistance	$	(29,466.03)
Ag Water Conservation	$	(8,816.95)
Technical Assistance / Technical Service Provider	$	(2,143,401.91)
Matching Funds	$	(1,094,383.31)
Director Mileage & Per Diem	$	(412,600.78)
Obligations	**$**	**(4,702,930.85)**

Non Point Source Management Plan Program
Appropriation Year 2008

Appropriation Original Budget	$	1,562,050.00
Transfers Out		
A0000803 Appropriation Transfer	$	(195,256.00)
A0000964 Appropriation Transfer	$	(66,000.00)
A0000800 Capital Budget	$	(6,950.00)
Subtotal Transfers Out	$	(268,206.00)
Transfers In		
A0000957 08 Salary Increase Adjustment	$	1,321.00
Subtotal Transfers In	$	1,321.00
Cash Revenues		
Federal Funds	$	6,141,022.98
Subtotal Cash Revenues	$	6,141,022.98
Appropriation Cash Available	**$**	**7,436,187.98**
Operating Budget Item		
Salaries and Wages	$	(442,851.96)
Other Personnel Costs	$	(7,786.86)
Professional Fees and Services	$	(1,683.14)
Fuels and Lubricants	$	(3,621.86)
Consumable Supplies	$	(14,110.70)
Utilities	$	(10,611.45)
Travel	$	(34,976.34)
Rent-Building	$	(17,161.69)
Rent-Machine and Other	$	(4,498.75)
Other Operating Expense	$	(19,187.82)
Capital Expense	$	(23,987.48)
Lapse	$	(788.37)
Non Point Source Grants		
CWA Section 319(h) - Federally Funded	$	(5,654,427.56)
08-50 Texas AgriLife Research	$	(200,279.00)
08-51 Texas AgriLife Research	$	(386,579.00)
03-06 North Star Helicopters, Inc.	$	(171,166.00)
08-52 Texas AgriLife Research	$	(100,000.00)
08-53 Texas AgriLife Research	$	(28,704.00)
08-54 Brazos River Authority	$	(262,232.00)
08-55 Texas AgriLife Research	$	(51,534.00)
Obligations	**$**	**(7,436,187.98)**

Water Quality Management Plan Program
Appropriation Year 2008

Appropriation Original Budget	$ 4,316,776.00
Transfers Out	
A0000803 Appropriation Transfer	$ (71,301.00)
A0000963 Appropriation Transfer	$ (177,000.00)
A0000800 Capital Budget	$ (16,000.00)
Subtotal Transfers Out	$ (264,301.00)
Transfers In	
A0000961 BRP Adjustment	$ 10,011.86
A0000957 08 Salary Increase Adjustment	$ 23,772.00
Subtotal Transfers In	$ 33,783.86
Cash Revenues	
Federal Funds	$ 345,517.30
Refund of Expenditure, Dublin Regional Office	$ 168.75
Subtotal Cash Revenues	$ 345,686.05
Appropriation Cash Available	**$ 4,431,944.91**
Operating Budget Item	
Salaries and Wages	$ (1,393,735.02)
Other Personnel Costs	$ (56,801.18)
Professional Fees and Services	$ (13,249.06)
Fuels and Lubricants	$ (39,622.18)
Consumable Supplies	$ (13,997.04)
Utilities	$ (35,070.19)
Travel	$ (50,080.42)
Rent-Building	$ (115,099.36)
Rent-Machine and Other	$ (19,866.77)
Other Operating Expense	$ (274,676.27)
Lapse	$ (17,186.03)
Poultry Grants	
Nacogdoches Soil and Water Conservation District	$ (93,256.00)
Shelby Soil and Water Conservation District	$ (47,341.00)
Texas AgriLife Research	$ (21,032.33)
USDA, Natural Resources Conservation Service	$ (15,000.00)
Cost-Share Assistance	
Obligations	$ (2,225,932.06)
Obligations	**$ (4,431,944.91)**

Water Supply Enhancement Program
Appropriation Year 2008

Appropriation Original Budget	$ 2,490,927.00
Transfers Out	
A0000800 Capital Budget	$ (3,500.00)
Subtotal Transfers Out	$ (3,500.00)
Transfers In	
A0000961 BRP Adjustment	$ 1,026.86
A0000957 08 Salary Increase Adjustment	$ 2,651.00
A0000965 Appropriation Transfer	$ 26,000.00
Subtotal Transfers In	$ 29,677.86
Appropriation Cash Available	**$ 2,517,104.86**
Operating Budget Item	
Salaries and Wages	$ (151,936.80)
Other Personnel Costs	$ (7,326.24)
Professional Fees and Services	$ (8,654.03)
Fuels and Lubricants	$ (8,241.11)
Consumable Supplies	$ (514.21)
Utilities	$ (3,231.59)
Travel	$ (23,798.43)
Rent-Building	$ (15,693.41)
Rent-Machine and Other	$ (1,303.08)
Other Operating Expense	$ (6,613.71)
Lapse	$ (158.80)
Grants to Districts	
Pedernales Soil and Water Conservation District	$ (101,872.69)
McMullen Soil and Water Conservation District	$ (15,000.00)
Comal - Guadalupe Soil and Water Conservation District	$ (2,000.00)
Mitchell Soil and Water Conservation District	$ (25,489.83)
Glasscock Soil and Water Conservation District	$ (70,596.06)
Pecan Bayou Soil and Water Conservation District	$ (4,745.54)
Monitoring and Feasibility	
Ken Rainwater, Director Water Resources Center	$ (1,866.17)
Upper Colorado River Authority	$ (138,600.00)
Cooperative Agreements	
Health and Human Services Commission	$ (225.66)
Texas Department of Criminal Justice	$ -
Cost-Share Assistance	
Obligations	$ (1,294,237.50)
Canadian River Shed Brush Control Project	
Canadian River Municipal Water Authority	$ (485,000.00)
Pecos River Ecosystem Project	
Texas Forest Service	$ (101,707.00)
Pecos Soil and Water Conservation District	$ (5,000.00)
Lapse	$ (43,293.00)
Obligations	**$ (2,517,104.86)**

Indirect Administration
Appropriation Year 2008

Appropriation Original Budget	$	414,760.00
Transfers Out		
A0000800 Capital Budget	$	(3,200.00)
A0000962 Appropriation Transfer	$	(30,000.00)
A0000966 Appropriation Transfer	$	(1,750.62)
Subtotal Transfers Out	$	(34,950.62)
Transfers In		
A0000961 BRP Adjustment	$	3,593.86
A0000957 08 Salary Increase Adjustment	$	6,593.00
A0000803 Appropriation Transfer	$	95,963.00
Subtotal Transfers In	$	106,149.86
Cash Revenues		
Federal Funds	$	43,415.36
Appropriation Cash Available	**$**	**529,374.60**
Operating Budget Item		
Salaries and Wages	$	(388,403.76)
Other Personnel Costs	$	(20,503.86)
Professional Fees and Services	$	(26,370.49)
Fuels and Lubricants	$	-
Consumable Supplies	$	(1,584.07)
Utilities	$	(9,274.55)
Travel	$	(55,980.23)
Rent-Building	$	(10,702.77)
Rent-Machine and Other	$	(2,304.48)
Other Operating Expense	$	(14,250.39)
Obligations	**$**	**(529,374.60)**

Active Projects

	Title	Description	Lead	Start	End	Federal
02-01	Administration of the FY2002 CWA Section 319(h) Agricultural/Silvicultural NPS Management Program	Administer/manage the FY02 CWA 319(h) cooperative agreement between EPA and TSSWCB. Coordinate with project cooperators on administrative related issues and manage the financial aspects of each contract.	TSSWCB	4 /1 /2002	4 /1 /2009	$304,132
02-02	FY2002 Statewide Agricultural/Silvicultural NPS Management Program	Provide technical assistance for FY02 CWA 319(h) agricultural and silvicultural projects and ensure that projects meet all technical requirements and are successfully completed in a timely fashion.	TSSWCB	4 /1 /2002	4 /1 /2009	$311,290
02-15	Water Quality Information/Education	Through the development of newspaper articles, informational brochures/flyers, display exhibits and promotional materials that include both water quality and water conservation messages a strategy can be developed to heighten the public awareness of the importance of protecting and conserving water resources.	TSSWCB	3 /31/2002	3 /31/2009	$135,000
02-21	SWAT Model Simulation of the Arroyo Colorado Watershed	This project will simulate the current nutrient, BOD, and sediment loading to the Arroyo Colorado using the SWAT model. Model output will provide the needed input for the EFDC model. To achieve this, the following objectives will be accomplished:(1) Collect meteorological, landuse, crops, flow, soils, topographic, irrigation and nutrient management, wastewater discharges, water quality, and other necessary data needed to model the Arroyo Colorado with SWAT(2) Calibrate SWAT watershed model to measured flow, sediment, BOD and nutrients(3) Simulate/validate flow, nutrient, BOD and sediment loads for current conditions(4) Simulate load reduction scenarios for a suite of management measures specified by the TSSWCB	Texas AgriLife Research TWRI	6 /1 /2007	3 /1 /2009	$94,997
03-01	Administration of the FY2003 CWA Section 319(h) Agricultural/Silvicultural NPS Management Program	Administer/manage the FY03 CWA 319(h) cooperative agreement between EPA and TSSWCB. Coordinate with project cooperators on administrative related issues and manage the financial aspects of each contract.	TSSWCB	5 /16/2003	5 /3 /2010	$154,231

	Title	Description	Lead	Start	End	Federal
03-02	FY2003 Statewide Agricultural/Silvicultural NPS Management Program	Provide technical assistance for FY03 CWA 319(h) agricultural and silvicultural projects and ensure that projects meet all technical requirements and are successfully completed in a timely fashion.	TSSWCB	5 /16/2003	5 /3 /2010	$245,109
03-09	Central Texas WQMP Implementation Supplemental	The project will provide additional funding for the ongoing implementation efforts in the Little River watershed. TSSWCB projects (02-5 & 02-6) entitled Central Texas Atrazine Remediation Project.	Central Texas SWCD	10/31/2003	4 /30/2009	$424,080
03-10	Technologies for Animal Waste Pollution	The objective of this project is to evaluate up to six technologies for decreasing nonpoint source pollution and improving surface water quality, through on-site demonstrations of reduction of total and soluble P in dairy effluent applied to waste application fields.	Texas Water Resources Institute	11/24/2003	3 /31/2009	$227,793
03-19	SWQM for Plum Creek WPP	Generate data of known and acceptable quality for surface water quality monitoring (routine ambient, targeted watershed, stormflow, 24-hour DO, effluent and springflow) of main stem and tributary stations on Segment 1810 (Plum Creek) for field, conventional, flow, bacteria and effluent parameters to support development of a WPP for the Plum Creek watershed in Caldwell, Hays and Travis Counties.	Guadalupe-Blanco River Authority	6 /1 /2007	10/31/2009	$109,000
04-01	Administration of the FY2004 CWA Section 319(h) Agricultural/Silvicultural NPS Management Program	Administer/manage the FY04 CWA 319(h) cooperative agreement between EPA and TSSWCB. Coordinate with project cooperators on administrative related issues and manage the financial aspects of each contract.	TSSWCB	8 /1 /2004	6 /1 /2011	$154,220
04-02	FY2004 Statewide Agricultural/Silvicultural NPS Management Program	Provide technical assistance for FY04 CWA 319(h) agricultural and silvicultural projects and ensure that projects meet all technical requirements and are successfully completed in a timely fashion.	TSSWCB	8 /1 /2004	6 /1 /2011	$375,231
04-04	Field Validation of the Texas P Index in the Poultry Areas of Texas	The objectives of this project are to determine the effects of selected soil properties in Sam Rayburn Reservoir and Lake O' the Pines watersheds and other poultry producing areas of the state in East & South Central Texas to measure & predict P runoff and compare and correlate Mehlich III and soil solution soluble P extracts to runoff P.	Texas AgriLife Extension	8 /18/2004	9 /30/2009	$390,657

	Title	Description	Lead	Start	End	Federal
04-05	Creekside Conservation Program	The purpose of this project is to protect Central Texas Highland Lakes by providing technical/financial assistance to landowners through the LCRA's Creekside Conservation Program and assess NPS reductions resulting from Creekside Conservation Program.	LCRA	8 /3 /2004	8 /31/2009	$507,300
04-11	Watershed Protection Plan Development for the Pecos River	This project will assess the Pecos River Basin, increase landowner and stakeholder involvement through educational efforts, and develop a Watershed Protection Plan based on the river basin assessment.	TWRI	8 /25/2004	03/31/2009	$749,381
04-14	Assessment and Mitigation of Agricultural and Other NPS Activities in the Cypress Creek Basin.	The primary goal of the project is to evaluate the effectiveness of selected BMPs in reducing nutrient inputs to Big Cypress Creek and Lake O' Pines by documenting runoff quality from sites representing dominant soil & land use types, with/out BMPs.	NETMWD	8 /3 /2004	6 /30/2009	$442,805
04-17	Plum Creek WPP	The purpose of this project is to coordinate the development of a Watershed Protection Plan for the Plum Creek Watershed and to facilitate beginning phases of implementation.	Texas AgriLife Extension Service	2 /24/2005	8 /31/2009	$440,503
04-18	BMP Verification in Richland-Chambers Watershed	The purpose of the project is to verify the effectiveness of nutrient load reduction BMPs in the Richland-Chambers watershed.	Texas AgriLife Research at Blackland	8 /1 /2005	6 /15/2009	$237,722
05-01	Administration of the FY2005 CWA Section 319(h) Agricultural/Silvicultural NPS Management Program	Administer/manage the FY05 CWA 319(h) cooperative agreement between EPA and TSSWCB. Coordinate with project cooperators on administrative related issues and manage the financial aspects of each contract.	TSSWCB	7 /7 /2005	9 /1 /2011	$104,480
05-02	FY2005 Statewide Agricultural/Silvicultural NPS Management Program	Provide technical assistance for FY05 CWA 319(h) agricultural and silvicultural projects and ensure that projects meet all technical requirements and are successfully completed in a timely fashion.	TSSWCB	7 /7 /2005	9 /1 /2011	$310,426
05-05	Watershed Education Development	The purpose of this project will be to develop and deliver an educational curriculum which functions to support the TSSWCB's effort to prepare a Watershed Protection Plan in the target watershed.	Texas AgriLife Extension Service	9 /1 /2005	8 /31/2009	$358,041

	Title	Description	Lead	Start	End	Federal
05-06	PLAN	The objective of this project is to educate 3rd party applicators of poultry litter to the environmental benefits of using proper application management techniques on new sites.	Texas AgriLife Extension Service	9 /1 /2005	2 /28/2009	$210,002
05-07	Impact of Proper Fertilizer	The objective of this project is to implement fertilizer management practices on cultivated and pasture fields to demonstrate the importance of using proper management relating to application method, timing, and rate, and conduct demonstration/educational activities on the importance of proper organic fertilizer management.	Texas AgriLife Extension Service	9 /1 /2005	8 /31/2009	$186,352
05-08	Peach Creek Project	This project will provide agricultural producers in the Peach Creek watershed with an opportunity to participate in water quality educational activities, technical assistance, and financial assistance for the implementation of Best Management Practices (BMPs), in order to improve water quality.	Gonzales SWCD	9 /1 /2005	9 /30/2009	$465,123
05-09	Lake Granger Project	The Brazos River Authority will facilitate the development of a Watershed Protection Plan for the Lake Granger Watershed. This project will also provide the Little River-San Gabriel and Taylor SWCDs with funding for technical/ financial assistance to implement BMPs through conservation planning.	BRA & Little River-San Gabriel and Taylor SWCD's	9 /1 /2005	8 /31/2009	$814,168
05-10	Arroyo Eduation Project	The purpose of this project is to educate agricultural producers on how to better produce and manage their acreage and support and promote associated programs implementing BMPs related to water quality protection.	TWRI	9 /1 /2005	2 /28/2009	$103,959
05-12	Arroyo WQMP Project	This project will provide technical assistance to landowners to aid in the development and implementation of a minimum of 78 WQMPs in the Arroyo Colorado Watershed.	Hidalgo & Southmost SWCDs	9 /1 /2005	8 /31/2009	$970,478
06-01	Administration of the FY2006 CWA Section 319(h) Agricultural/Silvicultural NPS Management Program	Administer and manage the FY2006 CWA 319(h) cooperative agreement between EPA and TSSWCB. Coordinate with project cooperators on administrative related issues and manage the financial aspects of each	TSSWCB	10/1 /2006	9 /1 /2011	$294,343

	Title	Description	Lead	Start	End	Federal
06-02	FY2006 Statewide Agricultural/Silvicultural NPS Management Program	Provide technical assistance for FY06 CWA 319(h) agricultural and silvicultural projects and to ensure that the projects meet all technical requirements and are successfully completed in a timely fashion.	TSSWCB	10/1 /2006	9 /1 /2011	$487,998
06-03	TSSWCB NPS Team Support	Provide technical assistance for FY01 - FY06 CWA 319(h) agricultural and silvicultural projects to ensure that the projects meet all requirements.	TSSWCB	10/1 /2006	9 /1 /2011	$44,000
06-04	Improvement and Standardization of Laboratory Quality Assurance and Quality Control for Mehlich III Soil Test Methodology: Phase 2	The purpose of this project is to develop appropriate and standardized quality assurance/quality control and standard operating procedures (SOP) for use of the Mehlich III soil test extractant.	Texas AgriLife Extension Service	10/1 /2006	9 /30/2009	$100,786
06-05	Lone Star Healthy Streams	This project will reduce the levels of bacterial contamination of Texas watersheds from grazing livestock (beef cattle) by developing an educational curriculum that delivers current knowledge training in production and environmental management of grazing lands and their associated watersheds, evaluating and demonstrating the effectiveness of BMPs in reducing bacterial contamination of streams and water bodies from grazing lands, testing the functionality of the education program and make necessary changes and program modifications based on the results, and promoting Statewide adoption of appropriate best management practices (BMPs) and other watershed / water quality protection activities through education, outreach and technology transfer.	Texas Water Resources Institute	10/1 /2006	9 /30/2009	$404,673
06-07	Monitoring and Educational Programs Focused on Escherichia coli Bacteria and Nutrient Runoff on Dairy Operations in the Leon Watershed	The objectives of this project are to evaluate the presence of E. coli bacteria and nutrients on livestock operations and determine the risks of movement of E. coli and nutrients to surface waters, educate livestock producers about best management practices to decrease E. coli bacteria and nutrients in runoff from livestock operations, and determine the source(s) of E. coli in runoff from the sites and its relative contribution to the E. coli populations downstream of the waste application fields.	Texas AgriLife Extension Service	10/1 /2006	9 /30/2009	$438,357

	Title	Description	Lead	Start	End	Federal
06-08	Education Program for Improved Water Quality in Copano Bay	The objective of this project is to improve the water quality in Copano Bay and its tributaries by increasing awareness of the water quality issues throughout the watershed and providing education and demonstrations for landowners and livestock owners in the watershed on practices to decrease or prevent bacteria from entering waterways.	Texas Water Resource Institute	10/1 /2006	9 /30/2009	$211,794
06-09	WQMP Implementation in the Middle and South Bosque River Watersheds	This project will provide technical and/or financial assistance to landowners to aid in the development and implementation of WQMPs and compile information on the location and types BMPs for each WQMP implemented.	TSSWCB	11/1 /2006	9 /30/2009	$527,770
06-10	Arroyo Colorado Agricultural Nonpoint Source Assessment	This project will better characterize agricultural runoff in the Arroyo watershed, demonstrate, and evaluate BMP effectiveness, and measure progress in achieving water quality goals in the watershed. The objectives of the project are to perform a complete historical data review and analysis related to water quality and agricultural best management practices implemented in the watershed, investigate site-specific differences and temporal variation of water quality in drainage from agricultural production areas, and collect data for future recalibration of SWAT model to better estimate the total nonpoint source loading into the river.	TWRI	10/1 /2006	9 /30/2009	$430,650
06-11	Buck Creek WPP	The objectives of this project are to identify specific sources of the bacteria in Buck Creek, evaluate potential management alternatives for restoring the waterbody and educate landowners on the best management practices, and develop a watershed protection plan to restore the waterbody through a stakeholder driven process.	Texas Water Resources Institute	10/1 /2006	9 /30/2009	$430,181
06-12	Leon River WPP	The objectives of this project are to use a locally-driven, stakeholder process to develop a Watershed Protection Plan for the Leon River Watershed above Lake Belton; enhance data collection efforts to support and facilitate implementation activities; provide the TSSWCB and the TCEQ with recommendations on implementation strategies that can be incorporated into the TMDL Implementation Plan; and provide an overall assessment of the Leon River Watershed above Lake Belton.	Brazos River Authority	10/1 /2006	9 /30/2009	$440,525

	Title	Description	Lead	Start	End	Federal
06-13	Three EQIP Technicians	The objective of the project is to provide technical assistance to landowners to aid in the development, implementation, and/or maintenance of WQMPs through SB503, Clean Water Act (CWA) Section 319(h) and EQIP funds and compile information on the location and types BMPs for each WQMP implemented.	Karnes, Atascosa, & Dewitt SWCDs	12/1 /2006	9 /30/2009	$387,900
06-15	SWQM for Copano Bay TMDL	The objective of this project is to provide quality assured surface water quality monitoring data to support development of bacteria TMDLs for Copano Bay and Mission and Aransas Rivers in Aransas, Bee, Goliad, Karnes, Refugio, and San Patricio Counties.	Nueces River Authority	1 /1 /2007	9 /30/2009	$214,388
07-01	Administration of the FY2007 CWA Section 319(h) Agricultural/Silvicultural Nonpoint Source Management Program	Administer/manage the FY07 CWA 319(h) cooperative agreement between EPA and TSSWCB. Coordinate with project cooperators on administrative related issues and manage the financial aspects of each contract.	TSSWCB	10/1 /2007	9 /30/2010	$290,000
07-02	FY2007 Statewide Agricultural/Silvicultural NPS Management Program	Provide technical assistance for FY07 CWA 319(h) agricultural and silvicultural projects and ensure that projects meet all technical requirements and are successfully completed in a timely fashion.	TSSWCB	10/1 /2007	9 /30/2010	$460,000
07-03	Adaptation of AVGWLF watershed model for use in Texas: Phase I	The purpose of this project is to test and modify the AVGWLF watershed model for use in selected areas of Texas and surrounding states.		10/1 /2007	9 /30/2010	$122,623
07-04	Management Repository of Agricultural and Silvicultural Environmental Data	Development of a comprehensive, user-friendly database that will house data collected via CWA §319(h) Grant Program funds allocated to and through the Texas State Soil and Water Conservation Board.	Blackland Research & Extension Center	10/1 /2007	9 /30/2010	$323,342
07-05	LCRA Soil and Water Stewardship Program	Protect the Texas lower Colorado River basin by providing educational, technical and financial assistance to landowners through the Lower Colorado River Authority's Soil and Water Stewardship Program. Assess NPS reductions resulting from the Soil and Water Stewardship Program. Join with local soil and water conservation districts in promoting and educating agricultural producers and local stakeholders on abatement of NPS pollution through implementation of conservation practices and promotion of Water Quality Management Plans.	LCRA	10/1 /2007	9 /30/2010	$458,224

	Title	Description	Lead	Start	End	Federal
07-06	Fate and Transport of E. coli in Rural Texas Landscapes and Streams	The main objectives of this project are to identify, characterize, and quantify E. coli loads resulting from various sources in an impaired watershed, monitor survival, growth, re-growth, and die-off of E. coli under different environmental conditions, monitor re-suspension of E. coli in streams, and educate stakeholders by disseminating qualitative and quantitative information acquired in this monitoring and demonstration project.	TWRI	10/1 /2007	9 /30/2010	$300,000
07-07	Assessment of NPS Pollution from Cropland in the Oso Bay Watershed	The long-term goal of this project is to support program implementation efforts of the TSSWCB, the Nueces SWCD #357, and the TCEQ established to protect and restore the water quality of the Oso Bay and Oso Creek water bodies from NPS. Goals and objectives pursued in the project are the assessment of runoff-related loadings of nutrients, selected inorganic ions, suspended sediments, and bacteria (Enterococcus) from the Oso Creek's watershed and (the development of a better understanding of the role of these runoff-related loadings on the dynamics of water quality properties in these water bodies	Texas AgriLife Research - CC	10/1 /2007	9 /30/2010	$165,050
07-08	Regional Watershed Coordinator	The objective of this project is to successfully facilitate and coordinate watershed planning activities in the Wharton Regional Office service area.	TSSWCB	10/1 /2007	9 /30/2010	$194,000
07-09	Statewide Implementation of the Texas Watershed Steward Program	The objective of this project is to facilitate statewide implementation of the Texas Watershed Steward (TWS) program through watershed-based group trainings and computer-based distance training components. · This project will increase stakeholder involvement in the WPP and/or TMDL development processes by educating and organizing local citizens and to promote healthy watersheds by increasing citizen awareness, understanding, and knowledge about the nature and function of watersheds, potential impairments, and watershed protection strategies to minimize nonpoint source pollution.	Texas AgriLife Extension Service	10/1 /2007	9 /30/2010	$520,000

	Title	Description	Lead	Start	End	Federal
07-10	Broad-based Communication and Forecasting for Environmental Quality (Envirocast- Houston)	This project will develop a plan of action to create and maintain a website for water quality & other environmental issues and environmental quality broadcast spots to educate the public in the target watersheds in partnership with StormCenter Communications Inc. and Houston Channel 11 (CBS Affiliate); develop partnerships with state, federal and regional agencies and local governments as local content providers to provide information for the website and broadcast spots; publicize and promote the project; train partnering station and local content providers on developing, implementing and utilized the Envirocast tools; evaluation of Phase I; project administration.	HGAC	10/1 /2007	9 /30/2010	$725,000
07-11	Lampasas River Watershed Assessment and Protection Project	The purpose of this project is to work in concert with federal, state and local partners to coordinate a stakeholder driven process for the development of a WPP in the Lampasas River Watershed that is consistent with EPA's nine essential elements fundamental to a potentially	Texas AgriLife Research at Blackland	10/1 /2007	9 /30/2010	$498,422
07-12	Assessing Water Quality Management Plan Implementation in the Middle and South Bosque River and Hog Creek Watersheds	This project will provide storm and routine monitoring of the Middle and South Bosque River and Hog Creek watersheds in order to assess ag NPS reductions associated with implementation of WQMPs within waterbodies of concern for nitrite-nitrate nitrogen. A secondary objective is to monitor reductions in bacteria concentrations through routine grab sampling.	TIAER	10/1 /2007	9 /30/2010	$308,640
07-13	Identify and Characterize NPS Bacteria Pollution to Support Implementation of Bacteria TMDLs in the Oso Bay Watershed	To provide information on nonpoint sources of enterococci in the upstream section of Oso Creek to state agencies and local planning entities in support of the Implementation Phase of the Oso Creek/Oso Bay watershed TMDL	Texas A&M University-Corpus Christi	10/1 /2007	9 /30/2010	$442,372
07-14	Agricultural NPS Remediation in the Cedar Creek Reservoir Watershed	The project's goal is to reduce nutrient and sediment loading to Cedar Creek Reservoir by implementing BMPs on crop and pasture lands. The objectives are to encourage BMP implementation by providing landowners with technical and financial assistance through the Kaufmann-Van Zandt SWCD and educational programs through Texas Cooperative Extension. Effectiveness of BMPs will be assessed by TAES.	Kaufman-Van Zandt SWCD #505	10/1 /2007	9 /30/2010	$736,619

	Title	Description	Lead	Start	End	Federal
08-01	Administration of the FY2008 CWA Section 319(h) Agricultural/Silvicultural Nonpoint Source Management Program	Administer/manage the FY08 CWA 319(h) cooperative agreement between EPA and TSSWCB. Coordinate with project cooperators on administrative related issues and manage the financial aspects of each contract.	TSSWCB	9 /1 /2008	8 /31/2011	$260,000
08-02	FY2008 Statewide Agricultural/Silvicultural NPS Management Program	Provide technical assistance for FY08 CWA 319(h) agricultural and silvicultural projects and ensure that projects meet all technical requirements and are successfully completed in a timely fashion.	TSSWCB	9 /1 /2008	8 /31/2011	$507,824
08-03	Texas Silvicultural Nonpoint Source Pollution Prevention and Abatement	The major goal of this project is to protect and improve water quality in Texas. The extensive education, training, and outreach components of this project will lead to an increase in forestry BMP implementation, as well as preventing unnecessary erosion and sedimentation from occurring. Another goal is to provide technical assistance to the forestry community on emerging issues - biomass, urban forestry, and land stewardship in Central Texas.	TFS	9 /1 /2008	8 /31/2011	$506,327
08-04	Efficient Nitrogen Fertilization: Accounting for Field Nitrogen Mineralization	This project will demonstrate an enhanced soil test methodology that accounts for all sources of plant available N in the soil, improve fertilizer efficiency by considering all sources of plant available N in the soil, and demonstrate the potential for reduced N runoff due to reduced N application based on use of this soil test methodology.	USDA- ARS	9 /1 /2008	8 /31/2011	$293,883
08-05	Modeling Support for Buck Creek Watershed Protection Plan	This project will develop an estimate of bacterial loading in Buck Creek using the SELECT model and identify highest contributing areas and their associated sources. Load Duration Curves will be used to determine bacteria load reductions needed to achieve water quality standards. The results of this project will be incorporated into the Buck Creek Watershed Protection Plan.	TWRI	9 /1 /2008	8 /31/2011	$42,330
08-06	Development of a Watershed Protection Plan for Geronimo Creek	The goals of the project are to collect and analyze water quality data and coordinate the development of a watershed protection plan for the Geronimo Creek watershed that satisfies the nine elements.	GBRA	9 /1 /2008	8 /31/2011	$472,398

	Title	Description	Lead	Start	End	Federal
08-07	Implementing Agricultural Nonpoint Source Components of the Plum Creek Watershed Protection Plan	This project will foster coordinated technical assistance activities between the TSSWCB, local SWCDs and the NRCS and provide technical and financial assistance to agricultural producers for the development of Water Quality Management Plans (WQMPs) and implementation of Best Management Practices (BMPs). It will also provide education on feral hog management strategies and track feral hog management activities conducted by landowners. Lastly, it wll support and facilitate Plum Creek Watershed Partnership in developing proposals to acquire funding for implementation projects, managing and tracking implementation projects as well as to deliver educational programs to citizens in the watershed to encourage adoption of agricultural BMPs.	Caldwell-Travis SWCD/ AgriLife Extension	9 /1 /2008	8 /31/2011	$996,079

TEXAS STATE SOIL & WATER CONSERVATION BOARD

SEMI - ANNUAL REPORT

TO THE

GOVERNOR,
LIEUTENANT GOVERNOR,
AND
SPEAKER OF THE HOUSE

JULY 1, 2009

Forward

In response to S.B. 1828 passed by the 78th Texas Legislature in Regular Session, 2003, the Texas State Soil and Water Conservation Board presents this review of its programs and activities. S.B. 1828 added §201.028 to the Texas Agriculture Code to provide that the TSSWCB shall prepare and deliver to the Governor, the Lieutenant Governor, and the Speaker of the House of Representatives a report, not later than January 1 and July 1 of each year, relating to the status of the budget areas of responsibility assigned to the State Board including outreach programs, grants made and received, federal funding applied for and received, special projects, and oversight of soil and water conservation district activities.

The FY09 Operating Budget with expenditures is attached to this report. Information on grants made to local districts and other entities is incorporated within the program section it involves. Ongoing Federal grant program projects under the Clean Water Act are provided in another attachment.

The Texas State Soil & Water Conservation Board takes pride in the accomplishments and remarkable progress that have been made in soil and water conservation in this state. Often environmental successes are slow to be realized. We have realized and previously reported one success story that involves reducing the level of Atrazine in several water bodies, particularly the Aquilla Reservoir in the Hill County-Blackland SWCD.

However, we recognize there remains a continuing challenge and an ongoing need to ensure our land has the capability to produce food and fiber for future Texans. Because of changes in land use, ownership, technology, and population growth, the need for soil and water conservation programs will remain critical. Texas has a finite number of acres to provide for the needs and desires of citizens and visitors, and this places an ever-increasing demand on agricultural land. Farmers and ranchers face complex decisions concerning the best ways to manage and utilize the land available to them.

We believe that soil and water conservation programs must remain dynamic as land uses change and technology improves to make some conservation practices more capable of meeting demands on soil and water resources. We also maintain the belief that the purpose of the soil and water conservation program is to promote the wise use of our renewable natural resources and provide for the conservation and enhancement of the soil and water resources of this state through and by the dynamic decisions of local soil and water conservation districts which promotes the use of each acre of land within its capabilities and treating it according to its needs.

From the beginning, the Texas State Soil and Water Conservation Board and local soil and water conservation districts have formed an organizational framework through which various complex governmental conservation programs are delivered to local landowners and operators. This relationship has successfully been utilized to disseminate sound management techniques and practices to maintain individual productive land uses to provide for the needs of present and future generations.

To the landowners of Texas, the individual soil and water conservation district directors, and the many agencies and organizations assisting and working with our programs, we offer our sincere thanks.

Table of Contents

	Page
Historical Background	4
Organization	6
Staff	7
Soil and Water Conservation Districts	8
Annual State Meeting Of Soil and Water Conservation District Directors	9
Director Mileage and Per Diem	10
District Technical Assistance Funds	10
District Conservation Assistance Program	10
Programs and Activities of the TSSWCB	10
Flood Control Programs	11
Texas Nonpoint Source Management Program	12
Clean Water Act §319(h) Nonpoint Source Grant Program	13
State Nonpoint Source Grant Program	13
Total Maximum Daily Load Program	14
Recreational Use Attainability Analyses	15
Watershed Protection Plan Program	16
Water Quality Management Plan Program	17
Poultry Water Quality Management Plan Initiative	20
Comprehensive Nutrient Management Plan Program	22
Coastal Coordination Council	22
Texas Groundwater Protection Committee	23
Watershed Approach to Water Quality Planning and Implementation	25
Statewide Bacterial Water Quality Impairment Reduction Initiative	27
Information Technology	27
Public Information /Education Report	29
General Overview	29
2008 Summer Teacher Workshops	29
2009 Texas Conservation Awards Program	30
Soil & Water Stewardship Public Speaking Contest	32
Wildlife Alliance For Youth	32
State Woodland Clinic and Contest	33
Regional Woodland Clinic	34
Conservation Education Video Library	34
Nonpoint Source (NPS) Pollution Watershed Flow Model	34
Water Supply Enhancement Program Status Report	35
TSSWCB FY09 Fiscal Report	Atch 1
Ongoing Clean Water Act, §319(h) Grant Program Projects	Atch 2
Ongoing State Nonpoint Source Grant Projects	Atch 3

Historical Background

In the early history of the United States, those involved in agriculture often did not consider the conservation of soil and water resources. Land was cleared and put into farm production. When the land quit producing at a profitable level, the farmers merely moved on to new land farther west and started the process over again. There was no need to be concerned with soil conservation, as there was a seemingly unlimited supply of virgin land waiting to be tilled. This process continued through the 1800s and into the early 1900s. With the outbreak of World War I, farmers in the Great Plains states were encouraged to break out native grassland to grow wheat and other foodstuffs to feed the nation and the world. As a result of these and other unwise management practices and the fact that the farmlands were experiencing long periods of drought, the 1930s produced some of the worst dust storms the nation had ever seen. Clouds of dust rolled across the plains states sending dust storms through the south and into the nation's capital. At the same time, the nation was in the midst of a great economic depression. The federal government, seeking ways to put people back to work and encourage conservation, created the Civilian Conservation Corps and Soil Erosion Service. Through these mechanisms, demonstration projects were initiated to train technicians and to educate the public in ways to conserve soil resources. These programs were successful in putting people back to work, but lacked the local ties to establish lasting conservation programs.

One of the early day leaders in the national effort to control soil erosion was Hugh Hammond Bennett from North Carolina. After graduation from the University of North Carolina in 1903, Hugh Bennett took a job with the Bureau of Soils in the United States Department of Agriculture. Because of his experience, scientific knowledge and leadership ability, he was put in charge of the Soil Erosion Service when it was created in 1933. In 1935, P.L. (Public Law) 46 was passed creating the Soil Conservation Service within the U.S. Department of Agriculture and Hugh Bennett became the first Chief of the agency. He soon became internationally known for his accomplishments in conservation work.

With the help of Congressman Buchannan from Columbus, Texas, Hugh Bennett was able to persuade President Franklin Roosevelt that the soil resources of this nation were being wasted. He convinced the President that a Model Soil Conservation Act should be developed and sent to the governors of each state for passage by their state legislatures. The purpose of this Model Act would be to develop programs at the state and local level to control soil erosion.

In 1936, such a Model Act was sent to the governors with the endorsement of President Roosevelt. The Model Act, developed in Washington, was patterned after the Texas Wind Erosion Act, the Grass Conservation Acts in the Northern High Plains and certain water conservation district law.

In 1937 legislation was introduced in the Texas Legislature based on this Model Act. It is reported that as many as 25 different versions of this soil conservation law were considered before a final version was passed. There was much heated discussion of the proposed legislation. When the final version was adopted, the bill contained many undesirable features. The law would have set up Soil Conservation Districts automatically on a county basis and made County Commissioners Courts the governing body. A portion of the county tax was to be used to finance the program and county agricultural agents were to be the administrative officers.

A number of agricultural leaders from across the state had, by this time, become concerned about the newly passed legislation. It was their opinion that, if the responsibility for installing and maintaining conservation measures lay in the hands of the land owners, the control of such a program should also be

in their hands. As a result of these and other concerns, a group of landowners led by V.C. Marshall of Heidenheimer, Texas, convinced the Governor to veto the 1937 legislation.

Hard feelings among agricultural leaders resulted from the attempt to pass this soil conservation law. Under the leadership of Mr. Marshall, a concerted effort was made during the interim between legislative sessions to heal the old wounds and to put together a version of a law that would be generally accepted by the farmers and ranchers of Texas. Mr. Marshall organized a committee of leaders from across the state to promote the passage of a new Soil Conservation Law. He traveled many miles at his own expense seeking the views of agricultural leaders and promoting the idea of the Soil Conservation District Program.

The key points Mr. Marshall felt should be included in the new law were that (1) farmers and ranchers should determine whether or not a Soil Conservation District was needed and hold a local option election prior to the establishment of the district; (2) the program should be controlled by landowners; and (3) the Soil Conservation Districts should have no taxing authority or the power of eminent domain.

In 1939 the Texas Legislature passed H.B. (House Bill) 20 which incorporated those features and was the first Soil Conservation Law for the state. The law created the State Soil Conservation Board and allowed for the creation of the Soil Conservation Districts. Mr. Marshall was elected as the first Chairman of the Soil Conservation Board and later resigned to become the first Executive Director of the agency.

On April 30, 1940, the Secretary of the State issued Certificates of Organization for the first 16 Soil Conservation Districts paving the way for the program we now operate. Today, Texas has 216 local soil and water conservation districts that encompass more than 99% of the state.

As previously mentioned, the Model Act endorsed by President Roosevelt was in part patterned after the Texas Wind Erosion Act. Texas was already making attempts to address soil conservation as a result of the "Dust Bowl" days of the 1930s. The 44th Legislature in 1935 passed legislation authorizing the establishment of Wind Erosion Conservation Districts. This law provided for the creation of districts to "conserve the soil by prevention of unnecessary erosion caused by winds, and the reclamation of lands that have been depreciated or denuded of soil by reasons of winds." Although a number of Wind Erosion Control Districts were created, the passage of the Soil Conservation District Law in 1939 resulted in those districts becoming dormant.

In 1975, Governor Dolph Briscoe, by Executive Order, designated the TSSWCB as lead agency to assume the planning and management responsibility for control of agricultural and silvicultural nonpoint source pollution as required by the Federal Water Pollution Control Act.

In 1981 the 67th Legislature passed H.B. 1436, which for the first time codified the agricultural laws of Texas. Title 7, Chapter 201 of this code contains the portion pertaining to Soil and Water Conservation.

In 1985 the 69th Legislature passed S.B. 1083 creating a Brush Control Program in Texas and granting new powers and responsibilities, without funding, to the TSSWCB and Soil and Water Conservation Districts under Chapter 203 of the Agriculture Code. In 1999, the TSSWCB received its first appropriation in the FY00-01 biennium to control water-depleting brush and trees, such as cedar and mesquite. The program received $9.1 million to establish a pilot project in the North Concho Watershed.

In 1993, the 73rd Legislature passed S.B. 503 which named the TSSWCB the lead agency to address water quality issues relating to runoff from diffused, or nonpoint sources resulting from agricultural and forestry operations. In 1999, the Legislature expanded the TSSWCB's environmental mission and appropriated money to address water pollution from nonpoint sources under a separate, federally mandated program.

The leaders who framed the Texas Soil and Water Conservation Law in 1939 recognized that landowners and operators of private land constitute the basic resource for the conservation of our renewable natural resources. Without the support and willing participation of private landowners and operators in the development and implementation of soil and water conservation programs there is little hope of success. Local soil and water conservation districts led by farmers and ranchers who know the land and the local conditions and problems have the means to develop conservation plans that address each acre of land specific to its needs to solve or reduce the severity of its problems.

Organization

Since inception, the TSSWCB has been governed by five board members, elected by delegates from each of five regions of the state's 216 local soil and water conservation districts. Elections occur annually at regional conventions of the local soil and water conservation districts, with members serving two-year staggered terms. However, with the enactment of S.B. 1828 by the 78th Legislature, two Governor appointees join the five elected board members to create a seven-member board. The two Governor appointed positions are listed below. The term of one member appointed by the Governor expires February 1 of each odd-numbered year, and the term of the other member appointed by the Governor expires on February 1 of each even-numbered year.

Elected State Board members must be 18 years of age or older; hold title to farmland or ranchland; and be actively engaged in farming or ranching. The Governor appointees must be actively engaged in the business of farming, animal husbandry, or other business related to agriculture and wholly or partly owns or leases land used in connection with that business; and may not be a member of the board of directors of a conservation district.

The State Board elects its own Chair and generally meets every odd month, unless specific programs or issues require more immediate action. The following list shows the current Board members and shows which State Board Region they represent.

Texas State Soil and Water Conservation Board

Member Name	**Region**	**Term**	**Residence**
Aubrey L. Russell	#1	May 5, 2009 – May 3, 2011	Panhandle
Marty H. Graham	#2	May 6, 2008 - May 4, 2010	Rocksprings
José O. Dodier, Jr.	#3	May 5, 2009 – May 3, 2011	Zapata
Jerry D. Nichols	#4	May 6, 2008 – May 4, 2010	Nacogdoches
Barry Mahler	#5	May 5, 2009 – May 3, 2011	Iowa Park
Larry D. Jacobs	Appointed	February 1, 2008-February 1, 2010	Montgomery
Joe L. Ward	Appointed	February 1, 2009-February 1, 2011	Telephone

Staff

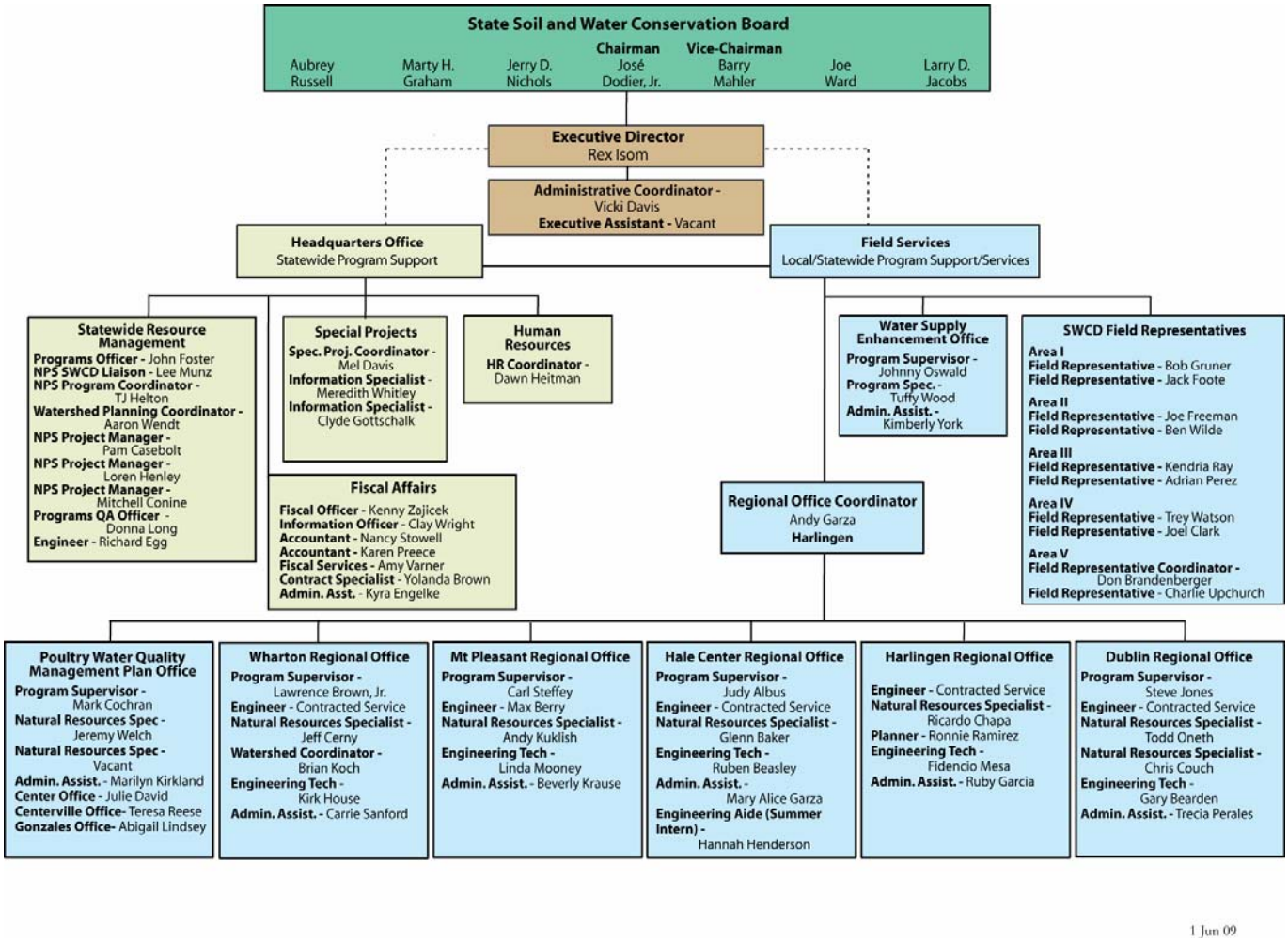
Mr. Rex Isom was named as the Executive Director in January 2004 and continues to carry out the directives of the State Board and directing staff efforts. We emphasize our agency philosophy as stated in our Strategic Plan, "The State Soil and Water Conservation Board will act in accordance with the highest standards of ethics, accountability, efficiency, and openness. We affirm that the conservation of our natural resources is both a public and a private benefit, and we approach our activities with a deep sense of purpose and responsibility." Mr. Isom, as Executive Director, is leading the agency in that direction and expects all employees to follow that lead.

The 81st Legislature authorized appropriations for 6 additional full-time employees (FTEs). These positions are coordinator for the Invasive Species Coordinating Committee as created by HB 865 (81st RS); a GIS/Database Administrator; two Flood Control Program Field positions; a Flood Control Program accounting position and a Water Supply Enhancement accounting position.

As of June 1, 2009 the TSSWCB employed 65 staff, 22 of which work in the Temple headquarters. The remaining employees are field staff, either working out of their homes or located in seven satellite offices; five regional offices and two program specific offices, located throughout the state. Due to difficulty in recruiting engineers, this service is now being contracted with engineering firms. The following organization chart shows the agency's current structure.

The current structure of the TSSWCB reflects efforts to maintain more personnel in the field and away from headquarters for a 66% to 34% ratio of Field personnel to Headquarters personnel.

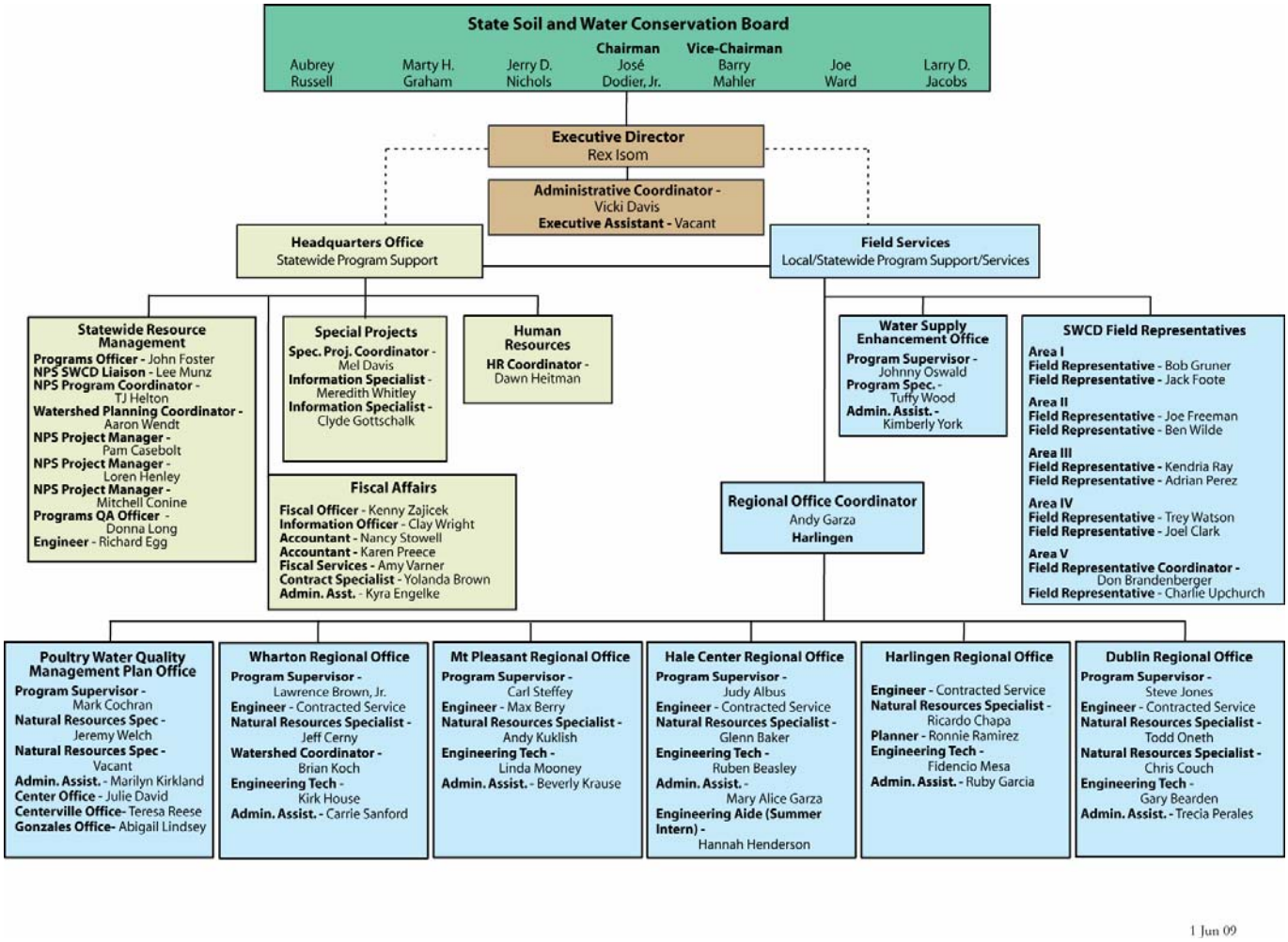
The regional office staff along with the program specific staff provides on-site technical assistance to farmers and ranchers. The field staff serves as a liaison between the TSSWCB and local districts. The field staff also provides assistance to local districts and district employees concerning operations, programs, and activities. The regional office staff and the program specific staff coordinates with the Texas Commission on Environmental Quality (TCEQ), Texas AgriLife Extension Service, and the USDA's Natural Resource Conservation Service (NRCS) to provide technical assistance to landowners to implement Water Quality Management Plans (WQMPs).



Soil and Water Conservation Districts

The TSSWCB performs many of its activities in coordination with the state's 216 local soil and water conservation districts. These local districts are political subdivisions of the state, established through local option elections of agricultural landowners. Districts generally reflect county boundaries, but may also follow river basin or watershed boundaries, depending on the desires of the local landowners.

The following soil and water conservation district map shows the current 216 local districts that cover almost the entire state. That portion of the state not in a soil and water conservation district is in Kenedy County and contains the privately owned King Ranch. The map also shows the grouping of the districts into the five State Board Districts that respectively elect a State Board member and shows the field staff that is assigned to work with each district within a specific area.



Landowners within these local districts elect the five district directors that comprise the districts governing body or board of directors. This board of directors administers the programs and activities of the district. Representatives of the districts within each region then elect the members of the State Board through a series of convention style-elections.

Districts do not have taxing authority and rely on locally generated funds from various activities and programs, federal assistance, county assistance, and state assistance from the TSSWCB. The USDA Natural Resource Conservation Service (NRCS) provides most of the federal assistance available to districts and through cooperative agreements provides technical assistance to farmers and ranchers requesting assistance from the district.

Annual State Meeting Of Soil and Water Conservation District Directors

The Annual State Meeting of Soil and Water Conservation District Directors, required in §201.081, Texas Agriculture Code, was scheduled to convened in Galveston September 29-30 and October 1 2008, however that meeting was cancelled due to Hurricane Ike which hit the Galveston area just days before. The State Board quickly rescheduled and conducted the meeting at the Hyatt Lost Pines Resort near

Bastrop on October 27-28, 2008. There were 120 districts represented, with 244 individual district directors that registered for the meeting. The total registration was 630.

The agency has scheduled the 2009 annual meeting for October 19-21 in Arlington.

Director Mileage and Per Diem

Under Section 201.077(a) of the Agriculture Code, Directors of Soil and Water Conservation Districts are entitled to receive mileage and per diem for official meetings of the District Board. At its July 2009 Meeting, the TSSWCB approved $434,510 in Director Mileage & Per Diem allocations for FY 2010 claims.

District Technical Assistance Funds

The 81st Legislature appropriated a $677,200 increase in Technical Assistance Funds for the 2010-11 Biennium. The TSSWCB disburses Technical Assistance payments to Soil and Water Conservation Districts on a reimbursing basis to supplement their efforts in providing assistance to agricultural producers in the state. Distributions are contingent upon Districts filing annual performance reports with the TSSWCB. At its July 2009 Meeting, the TSSWCB approved $1,778,154 in Technical Assistance allocations for FY 2010 claims.

District Conservation Assistance Program

District Conservation Assistance (Matching Fund) grants are awarded on a matching basis requiring Soil and Water Conservation Districts to raise funds from sources other than state appropriations. Districts do not have taxing authority and use locally raised funds with this matching grant to support their operational expenses. At its July 2009 Meeting, the TSSWCB approved $916,364 in Matching Fund allocations for FY 2010 claims.

Programs & Activities of the TSSWCB

The services and programs provided by the TSSWCB target rural Texas farmers and ranchers, but the results of these services benefit all Texans. For example, many of the flood control structures maintained by SWCDs serve to protect heavily populated areas from flood damage, and also prevent sediment from building up in drinking water supplies. Another example is the use of best management practices (BMPs), implemented through TSSWCB-certified water quality management plans (WQMPs), to prevent pesticides, nutrients, bacteria and other pollutants from impairing the use of Texas streams, rivers, lakes, and estuaries.

The agency is responsible for numerous natural resource conservation efforts, the most prominent of which is serving as the lead state agency responsible for planning, implementing and managing programs and practices for preventing and abating agricultural and silvicultural (forestry-related) nonpoint source (NPS) water pollution. To fulfill this mandate, the agency jointly administers the *Texas Nonpoint Source Management Program*. As a result, many of the agency's programs and services, and more than 60% of the agency's FY2009 budget, aim to improve and protect water quality, including the Water Quality

Management Plan Program, the Clean Water Act §319(h) Nonpoint Source Grant Program, the State Nonpoint Source Grant Program, the Total Maximum Daily Load Program, and the Watershed Protection Plan Program. Additionally, the TSSWCB is a statutorily-authorized member of the Coastal Coordination Council and the Texas Groundwater Protection Committee.

The TSSWCB is also responsible for programs affecting water quantity. The major existing program is the Water Supply Enhancement Program which seeks to increase water supply through the selective control of noxious phreatophytic brush. Additionally, many BMPs implemented by farmers and ranchers as prescribed in their WQMP have ancillary water conservation benefits – increasing irrigation efficiency and reducing water demand. The TSSWCB is a statutorily-authorized member of the Water Conservation Advisory Council, which was established by the 80th Texas Legislature.

Other responsibilities include prevention of soil erosion, control of floods, maintaining the navigability of waterways, the preservation of wildlife, protection of public lands, and providing information to landowners regarding the jurisdictions of the TSSWCB and the Texas Commission on Environmental Quality (TCEQ) related to NPS water pollution.

Flood Control Programs

Background

Nearly 2,000 floodwater retarding structures, or dams, have been built over the last 60 years within the State of Texas. The primary purpose of the structures is to protect lives and property by reducing the velocity of floodwaters, and thereby releasing flows at a safer rate. These are earthen dams that exist on private property, and were designed and constructed by the United States Department of Agriculture - Natural Resources Conservation Service (USDA-NRCS). They were built with the understanding that the private property owner would provide the land, the federal government would provide the technical design expertise and the funding to construct them, and then units of local government would be responsible for maintaining them into the future.

Local sponsors of the dams were required before a federal project was begun. Local sponsors signed a watershed agreement which outlined the duties and responsibilities of the federal and local sponsors. In general, local sponsors are required to obtain and enforce easements, conduct operation and maintenance (O&M) inspections, maintain the structures, and implement land treatment measures in the watershed. Soil and water conservation districts (SWCD) are one of the local sponsors in all watershed projects. Other local sponsors include counties, cities, and Water Control and Improvement Districts (WCIDs).

Due to the passage of time and difficulty in raising adequate funds locally, many sponsors approached the Texas Legislature with their concerns over amount of needed O&M and repairs. In recognition that these dams will continue to serve as a critical protection for our state's infrastructure, private property, and lives, the Legislature appropriated $15 million dollars to the Texas State Soil and Water Conservation Board (TSSWCB) for grants to local SWCDs during the 2010-2011 biennium for O&M and structural repairs.

Program Development

The TSSWCB is currently in the process of developing an (1) O&M Grant Program and a (2) Structural Repair Grant Program for the biennium. Rules for the O&M Grant Program were developed by the TSSWCB staff and a representative stakeholder group during the Summer of 2009, and it is anticipated that those rules will be published in the Texas Register on July 31, 2009 for a 30-day comment period. The agency's goal is to have the rules for the Structural Repair Program published for public comment during September 2009.

Texas Nonpoint Source Management Program

The federal Clean Water Act (CWA) requires States to develop a program to protect the quality of water resources from the adverse effects of NPS water pollution. The *Texas NPS Management Program* is the State's official roadmap for addressing NPS pollution. The program publication is updated every five years. The most recent revision was submitted to the U.S. Environmental Protection Agency (EPA) by the Governor in December 2005. The *Texas NPS Program* is jointly administered by the TSSWCB and the TCEQ.

The *Texas NPS Program* utilizes baseline water quality management programs and regulatory, voluntary, financial, and technical assistance approaches to achieve a balanced program. NPS pollution is managed through assessment, planning, implementation, and education. The TSSWCB and the TCEQ have established goals and objectives for guiding and tracking the progress of NPS management in Texas.

On May 13, 2009, TSSWCB and TCEQ released the *2008 Annual Report on Managing NPS Water Pollution in Texas*; the report is jointly published by the TSSWCB and the TCEQ. In accordance with the CWA, the State must annually report to EPA on success in achieving the goals and objectives of the *Texas NPS Program*. The report highlights the State's efforts during FY2008 to collect data, assess water quality, implement projects that reduce or prevent NPS pollution, and educate and involve the public to improve and maintain the quality of water resources for current and future generations of Texans. The report is available at http://www.tsswcb.state.tx.us/reports#nps.

Implementation of the *Texas NPS Program* involves partnerships among many organizations. With the extent and variety of NPS issues across Texas, cooperation across political boundaries is essential. Many local, regional, state, and federal agencies play an integral part in managing NPS pollution, especially at the watershed level. They provide information about local concerns and infrastructure and build support for the kind of pollution controls that are necessary to prevent and reduce NPS pollution. SWCDs are vital partners in working with landowners to implement BMPs that prevent and abate agricultural and silvicultural NPS water pollution. By establishing coordinated frameworks to share information and resources, the State can more effectively focus its water quality protection efforts.

Multiple water quality programs administered by and/or coordinated through TSSWCB collectively represent the agency's efforts in supporting the goals and objectives of the *Texas NPS Program* including:

- Clean Water Act §319(h) Nonpoint Source Grant Program
- State Nonpoint Source Grant Program
- Total Maximum Daily Load Program
- Watershed Protection Plan Program
- Water Quality Management Plan Program

- Coastal Coordination Council
- Texas Groundwater Protection Committee

For more information on the Texas NPS Management Program, visit our website at http://www.tsswcb.state.tx.us/managementprogram.

Clean Water Act §319(h) Nonpoint Source Grant Program

Congress enacted §319(h) of the CWA in 1987, establishing a national program to control NPS water pollution. Through §319(h), federal funds are provided annually through the EPA to States for the development and implementation of each State's NPS Management Program. Texas' share of the §319(h) funding is divided equally between the TCEQ and the TSSWCB. Over the past several years, the State's allocation has been approximately $9 million per year.

TSSWCB is currently administering $14 million in unliquidated federal funds from FY2003-FY2008 CWA §319(h) allocations. There are currently 54 ongoing §319(h) grant-funded projects addressing a wide array of agricultural and silvicultural NPS issues; a list and brief description of ongoing projects is provided in Attachment 2. Specific project activities include developing and implementing Watershed Protection Plans and Total Maximum Daily Loads; supporting targeted educational programs; and implementing BMPs to abate NPS pollution from dairy and poultry operations, silvicultural activities, grazing livestock operations, and row crop operations.

Quarterly progress reports for ongoing projects were received on January 15, 2009 and April 15, 2009. To date, reports have been received for 100% of the projects. These reports are entered semi-annually into EPA's Grants Reporting and Tracking System.

The TSSWCB's FY2009 CWA §319(h) program allocation from EPA is $4,578,700. The TSSWCB received 22 proposals requesting a total of $6,038,897 in federal funds during the fall 2008 request for proposals. Of those, 8 were selected for funding. TSSWCB submitted the FY2009 §319(h) grant application to EPA on July 8, 2009.

For more information on the TSSWCB CWA §319(h) NPS Grant Program, visit our website at http://www.tsswcb.state.tx.us/managementprogram/browseactive.

State Nonpoint Source Grant Program

The 80th Texas Legislature appropriated general revenue funds to the TSSWCB for the purpose of planning, implementing, and managing programs and practices for preventing and abating agricultural and silvicultural NPS water pollution in impaired watersheds. On May 24, 2007, the TSSWCB approved a *TSSWCB Policy on TMDLs* which provides guidance to staff on directing state appropriations for the State NPS Grant Program. TSSWCB is committed to funding projects encompassing monitoring, assessment, modeling, planning, education, and implementation. Subsequently, the TSSWCB approved operating budgets for FY2008 and FY2009 that each allocated $1.2 million in state general revenue to the State NPS Grant Program.

TSSWCB is currently administering $1.9 million in unliquidated state funds from FY2008-FY2009 State NPS Grant Program allocations. There are currently 12 ongoing general revenue-funded projects addressing an array of agricultural and silvicultural NPS issues; a list and brief description of ongoing projects is provided in Attachment 3. These projects support increased analytical infrastructure at public bacterial source tracking (BST) laboratories, implementation of agricultural NPS components of Total Maximum Daily Load Implementation Plans, technical assistance for the development of WQMPs on agricultural lands, and the collection and analysis of water quality data for watersheds with impaired waterbodies.

Quarterly progress reports for ongoing projects were received on March 15, 2009 and June 15, 2009. To date, reports have been received for 100% of the projects.

For more information on the TSSWCB State NPS Grant Program, visit our website at http://www.tsswcb.state.tx.us/managementprogram/browseactive.

Total Maximum Daily Load Program

The CWA requires Texas to identify lakes, rivers, streams, and estuaries failing to meet or not expected to meet water quality standards and not supporting their designated uses (swimming, drinking, aquatic life, etc.). This list of impaired waterbodies is known as the *Texas 303(d) List* and must be submitted to the EPA for review and approval every two years. The *2008 Texas Water Quality Inventory and 303(d) List* was approved by EPA on July 9, 2008. The *2008 List* identifies over 830 impairments (waterbody-pollutant combinations).

The State must then establish a Total Maximum Daily Load (TMDL) for certain waterbodies identified on the *303(d) List*. A TMDL defines the maximum amount of a pollutant that a waterbody can assimilate on a daily basis and still meet water quality standards. The pollution reduction goal set by the TMDL is necessary to restore attainment of the designated use of the impaired waterbody. The maximum amount of pollutant is determined by conducting a detailed water quality assessment that provides the information for a TMDL to allocate pollutant loads between point sources and nonpoint sources. It also takes into account a margin of safety, which reflects uncertainty and future growth.

Based on the environmental target of the TMDL, an Implementation Plan (I-Plan) is then developed that prescribes the measures necessary to mitigate anthropogenic (human-caused) sources of that pollutant in that waterbody. The I-Plan specifies limits for point source dischargers and recommends BMPs for nonpoint sources. It also lays out a schedule for implementation. Together, the TMDL and the I-Plan serve as the mechanism to reduce the pollutant, restore the full use of the waterbody and remove it from the *303(d) List*. EPA must approve the TMDL, but the I-Plan only requires State approval.

With authority as the lead agency in Texas for planning, implementing, and managing programs and practices for preventing and abating agricultural and silvicultural NPS water pollution, TSSWCB shares responsibility with the TCEQ for the development and implementation of TMDLs. TSSWCB is committed to funding and collaborating with the TCEQ, on TMDL projects encompassing monitoring, assessment, modeling, planning, education, and implementation.

On September 27, 2006, at a joint meeting, the TSSWCB and the TCEQ renewed this partnership and approved a revised *Memorandum of Agreement on Total Maximum Daily Loads, Implementation Plans,*

and Watershed Protection Plans. This framework for collaboration between the two agencies describes the programmatic mechanisms employed to develop and implement TMDLs and I-Plans.

TSSWCB is engaged in implementation activities that support approved I-Plans addressing agricultural or silvicultural NPS load reductions described in adopted TMDLs; collaborating with stakeholders on the development of I-Plans for adopted TMDLs that contain agricultural or silvicultural NPS load reductions; and, actively engaged in the development of TMDLs for waterbodies impaired due to known or suspected agricultural or silvicultural NPS pollution.

TSSWCB funded activities are mitigating bacteria, atrazine, dissolved oxygen, phosphorus and salinity impairments through TMDLs and I-Plans. Specific watersheds where TSSWCB efforts to restore water quality are channeled through TMDL development and implementation are discussed in the *Watershed Approach to Water Quality Planning and Implementation* section of this Report.

In order to abate agricultural and silvicultural NPS pollution, TMDLs and I-Plans will implement components of other TSSWCB Programs, such as the Water Quality Management Plan Program or the Water Supply Enhancement Program. Additionally, the TSSWCB CWA §319(h) NPS Grant Program and the State NPS Grant Program frequently serve as funding sources to implement the agricultural and silvicultural NPS components of I-Plans. These programs are described in detail in other sections of this Report.

For more information on the TSSWCB TMDL Program, visit our website at http://www.tsswcb.state.tx.us/tmdl.

Recreational Use Attainability Analyses

According to the *2008 Texas Water Quality Inventory and 303(d) List*, two hundred ninety-five (295) waterbodies are impaired because they do not meet surface water quality standards for bacteria established to protect contact recreation use (in freshwater or saltwater) and/or oyster water use. The magnitude of bacteria impairments in Texas is evident when compared to all other types of water quality impairments. These bacteria impairments represent over 48% of all impairments on the *303(d) List*.

Critical to solving the breadth of bacteria impairments statewide is ensuring that the water quality standards designed to protect recreation use are appropriate and credible. Major revisions to the Texas Surface Water Quality Standards are currently being drafted by the TCEQ, including significant modifications to contact recreation use and associated bacteria criteria. TSSWCB is engaged in this process. TCEQ adoption of the proposed Standards changes is not expected until late spring 2010 at the earliest. EPA must then take action to approve any changes to the Standards.

Irregardless of what Standards changes are finally approved, in order to change the presumed level of recreation use of a waterbody and the associated bacteria criterion, a Recreational Use Attainability Analysis (RUAA) would need to be completed and approved by TCEQ and subsequently EPA. TCEQ has recently developed draft procedures for conducting RUAAs; previously there were no RUAA protocols in Texas.

The purpose of an RUAA is to ascertain the actual recreation occurring on a waterbody, establish or verify a presumed use, and, if necessary, assign a more appropriate use. During an RUAA information is

collected on water recreation activities, stream flow type, and stream depth; additionally, interviews from users who are present during surveys and those familiar with the waterbody may be conducted and a review of historical information may be completed. If the results of the RUAA indicate that a different, more appropriate use is warranted, the resulting change in the associated bacteria criterion may result in the waterbody no longer being identified on the *303(d) List* as impaired, thus negating the need to adopt a TMDL.

The TCEQ is conducting RUAAs during summer 2009 and summer 2010 on nearly 90 waterbodies across the state. Prior to conducting the surveys, local stakeholders will be contacted to seek input on each project's monitoring plan. Specifically, citizens will be asked to provide input on potential sites near stream crossings to perform evaluations, and landowners will be asked to provide access to evaluate those stretches of the river that are not readily accessible to the public. TCEQ is coordinating communication with SWCDs through the TSSWCB. After the RUAAs are conducted, TCEQ will evaluate the information and again consult with stakeholders regarding potential site-specific revisions to the surface water quality standards for each waterbody.

Because proposed changes to the surface water quality standards affecting recreation use and bacteria criteria must first be approved by TCEQ and EPA, and this is not expected until late spring 2010 at the earliest, any changes to specific waterbodies as a result of this suite of RUAAs being conducted will not be reflected until the *2012 303(d) List* is published in April 2012.

Watershed Protection Plan Program

Watershed Protection Plans (WPPs) are locally-driven efforts that serve as a mechanism for voluntarily addressing complex water quality problems that cross multiple jurisdictions. WPPs are coordinated frameworks for implementing prioritized and integrated water quality protection and restoration strategies driven by environmental objectives. Through the WPP process, TSSWCB encourages stakeholders to holistically address all the sources and causes of impairments and threats to both surface and ground water resources within a watershed.

WPPs serve as tools to better leverage the resources of local governments, state and federal agencies, and non-governmental organizations. WPPs integrate activities and prioritize implementation projects based upon technical merit and benefits to the community, promote a unified approach to seeking funding for implementation, and create a coordinated public communication and education program. Developed and implemented through diverse, well integrated partnerships, a WPP assures the long-term health of the watershed with strategies for protecting unimpaired waters and restoring impaired waters.

WPPs have a variety of ingredients and can take many forms. TSSWCB-sponsored WPPs are consistent with guidelines promulgated by the EPA in 2003. These guidelines describe nine elements fundamental to a potentially successful plan. The TCEQ also sponsors WPPs based on EPA's guidelines. EPA requires certain expenditures through §319(h) grants to be in accordance with a WPP.

TSSWCB provides technical and financial assistance to local stakeholder groups to develop and implement WPPs. Entities are provided financial assistance necessary to facilitate the WPP process in specific watersheds with significant agricultural or silvicultural NPS pollution. Additionally, TSSWCB staff provide technical assistance in developing WPPs which are funded and facilitated by other entities, such as the TCEQ.

Partnerships with the Texas AgriLife Extension Service, the Texas Water Resources Institute and the TCEQ have resulted in the development of training programs for local stakeholder groups and watershed coordinators. The Texas Watershed Steward Program (http://tws.tamu.edu/) supports the development and implementation of WPPs by promoting a sustainable proactive approach to managing water quality at the local level by empowering individuals to take leadership roles in the management of water resources. The Texas Watershed Planning Short Course (http://watershedplanning.tamu.edu/) delivers training to watershed coordinators and water resource professionals to ensure WPPs are adequately planned, coordinated, implemented, and results properly assessed and reported.

On September 27, 2006, at a joint meeting, the TSSWCB and the TCEQ approved a revised *Memorandum of Agreement on Total Maximum Daily Loads, Implementation Plans, and Watershed Protection Plans*. This framework for collaboration between the two agencies describes the programmatic mechanisms employed to develop and implement WPPs.

WPPs currently sponsored by TSSWCB have significant agricultural or silvicultural NPS pollution components and are all funded through CWA §319(h) NPS Grants. While WPPs sponsored by TCEQ have significant water quality issues related to urban NPS pollution or wastewater treatment, most, to varying degrees, have agricultural or silvicultural NPS pollution components. There are several other watershed planning efforts across the state which are funded and sponsored by entities and agencies other than the TSSWCB or the TCEQ. These third-party WPPs may or may not adequately satisfy EPA's nine elements; although, those that do, are eligible to receive CWA §319(h) NPS Grants from the TSSWCB to support implementation of agricultural or silvicultural NPS pollution components of the WPP.

Specific watersheds where TSSWCB efforts to restore water quality are channeled through WPP development and implementation are discussed in the *Watershed Approach to Water Quality Planning and Implementation* section of this Report.

In order to abate agricultural and silvicultural NPS pollution, WPPs will implement components of other TSSWCB Programs, such as the Water Quality Management Plan Program or the Water Supply Enhancement Program. Additionally, the TSSWCB CWA §319(h) NPS Grant Program and the State NPS Grant Program serve as funding sources to implement the agricultural and silvicultural NPS components of WPPs. These programs are described in detail in other sections of this Report.

For more information on the TSSWCB WPP Program, visit our website at http://www.tsswcb.state.tx.us/wpp.

Water Quality Management Plan Program

In 1993, the Texas Legislature passed Senate Bill 503 that directed the TSSWCB to implement Water Quality Management Plans (WQMPs) in Texas. The agency has implemented more than 6000 WQMPs since the inception of the program.

The WQMP Program is administered from five Regional Offices around the state. A poultry WQMP office was opened in Nacogdoches in January 2005. The Regional Offices are:

Dublin Regional Office
Hale Center Regional Office
Harlingen Regional Office
Mount Pleasant Regional Office
Wharton Regional Office
Poultry Program Office (Nacogdoches)

A WQMP is a site-specific conservation plan developed through (and approved by) SWCDs for agricultural or silvicultural lands. The plan includes appropriate land treatment practices, production practices, management measures, technologies or combinations thereof. The purpose of WQMPs is to achieve a level of pollution prevention or abatement determined by the TSSWCB, in consultation with local soil and water conservation districts that is consistent with state water quality standards.

The TSSWCB selected requirements for a WQMP based on the criteria outlined in the *Field Office Technical Guide (FOTG)*, a publication of the United States Department of Agriculture's Natural Resources Conservation Service (NRCS).

Nutrient management must be included if nutrients are applied. If an animal feeding operation is involved (such as an unpermitted dairy), a WQMP will be planned with practices that individually or in combination with other practices will properly manage animal wastes. Waste utilization will be considered when agricultural wastes are applied. These WQMPs also have subcomponents for irrigation waters, erosion control, and are flexible enough to cater to a wide range of operating systems.

Agricultural and forestry landowners may enter into these cooperative agreements with their local district to control nonpoint source pollution from their operations. While the decision to develop a plan is voluntary, landowners have many reasons to do so. These plans provide for landowners to use best management practices in their operations to protect their most precious agricultural resources by controlling erosion, conserving water, and protecting water quality. In addition, certified plans have the same legal status as Texas Commission on Environmental Quality (TCEQ) point source pollution permits, without having to go through that agency's regulatory process. Landowners may also receive financial incentives to help pay for implementing these plans.

It should be noted that an animal feeding operation that is required by law to operate within the confines of a water quality permit issued by the TCEQ may not participate in the TSSWCB program.

Water Quality Management Plans are especially useful for animal feeding operations. Depending on their size, animal feeding operations may be regulated by TCEQ as a point source or are unregulated and eligible for the TSSWCB's voluntary program. Generally, these feeding operations are classified according to the number of animals they have, calculated as "animal units"; however, TECQ has adopted rules that provide if you have or exceed a certain number of animals, you will be regulated. Animal feeding operations with more than the number of animals listed in TCEQ rules must apply for a permit. Most animal feeding operations in Texas are not large enough to require a permit, which makes this program critical to protecting Texas' water quality.

In developing the Water Quality Management Plan, the TSSWCB, SWCDs, and the USDA Natural Resources Conservation Service (NRCS) provide technical assistance to help the landowner meet the criteria of the plan. A plan establishes practices and installations on the farm that adhere to best

management practices specific for that area. The various installations that a plan calls for depend on the operation. A farm may include a combination of cropland, dairy cows, poultry, hogs or cattle.

These plans may also include erosion control measures such as terraces or grass waterways; or they may address nutrient management to help landowners avoid over-fertilizing their land, or over-applying animal waste. Although a plan will take into consideration each farm's unique components, all WQMPs generally attempt to control erosion, conserve water, and protect water quality.

Upon TSSWCB certification of a WQMP, a landowner may apply for a financial incentive that will help pay for implementing the plan. Local districts have varying rates for sharing the cost of plan implementation; however cost-share may not exceed 75% with a maximum $10,000 grant limit per plan. Landowners receiving financial incentive have approximately are now given a specific time period to implement conservation practices, otherwise, their applications are cancelled automatically and the funds are reallocated to another plan. This approach hopefully will reduce the amount of lapsed funds.

The TSSWCB allocates money to local districts for financial incentives based on whether the area has impaired water bodies as determined by TCEQ, or if the TSSWCB had previously designated it as a priority. Most of these financial incentives were appropriated from General Revenue funds. Some plans received financial incentives from federal funds. State appropriations provided to local districts in FY08 amounted to $2,171,740.00 to carry out a WQMP cost-share program in their district.

In addition to certifying WQMPs to ensure that they help abate nonpoint source pollution, the TSSWCB monitors WQMPs to ensure they are properly implemented. Each year, the TSSWCB conducts status reviews on a minimum of 10% of the plans. Additional technical assistance may be offered to a landowner when a WQMP is found noncompliant. In the unlikely case that the landowner does not achieve compliance with the WQMP, the TSSWCB may decertify the plan.

During FY03, the WQMP Program was administered from the TSSWCB office in Temple. The staff reductions in the FY04 budget made it necessary for the program to be reorganized and the Regional Offices activities are now coordinated through the Harlingen Regional Office. Additionally, plan certification authority was shifted from the Temple headquarters to each regional office. This change is already expediting the certification process and reducing postage expenditures, while maintaining the integrity and standards of the program.

The last adjustment involved the complaint process, which was also administered out of the headquarters office during FY03. Headquarters office no longer has an individual to do complaint inspections and all complaints are investigated from the appropriate Regional Office.

Current Status

A total of 642 water quality management plans have been certified by the State Board through the end of the 3rd quarter of FY-2009. This is 3.5% greater than the yearly goal.

District cost-share fund allocations for FY-10 have been approved by the State Board. The period for obligating FY-10 cost-share funds goes from September 1, 2009 to April 30, 2010.

For FY-09, the Hall-Childress #109, Salt Fork #133, Atascosa #307, Hill Country #534 and Mills County #554 were designated as priority districts because of impaired water bodies within their boundaries. These districts are now eligible to receive cost-share allocations.

Lapsed cost-share funds have been reduced by 53% in the last four years. Approximately 12.5% of total cost-share funds are being lapsed statewide at the present time.

Poultry Water Quality Management Plan Initiative

Background

In 1994, the Texas State Soil and Water Conservation Board (TSSWCB) began assisting poultry operations with the establishment of the Northeast Texas - Senate Bill 503 Cost-share Area. Since 1994, over $300,000 of WQMP Program funding has been provided annually to six soil and water conservation districts (SWCDs) in Northeast Texas to address animal feeding operations (AFOs). Shelby SWCD began receiving SB 503 funds in FY 2005 and the Nacogdoches SWCD began receiving SB 503 funds in FY 2007.

In 1995, the TSSWCB initiated three federal Clean Water Act, §319(h) projects to demonstrate composting as a means for dead bird disposal, buffer strips, and proper land application of poultry litter. In 1996, the TSSWCB expanded its efforts by initiating a composting and marketing project. This effort to promote the installation of composters and other means of mortality management on poultry farms resulted in accelerated WQMP development.

In 1997, the Texas Legislature passed Senate Bill 1910, which required all poultry farms to have a TCEQ-approved method of dead bird disposal. The law took effect in March 1998. However, the rules were not adopted and did not take effect until fall 1999. It was during this time that requests for poultry WQMPs significantly increased due to pursuit of cost-share for mandated mortality management. This activity intensified the TSSWCB's poultry initiative.

In 1999, in response to water quality concerns and the initiation of TMDL development in the Big Cypress/Lake O' the Pines watershed, the TSSWCB began using §319 funds for cost-share in the area in addition to the Senate Bill 503 cost-share funds already directed to the watershed. The current implementation process of the TMDL has shown that the WQMP program has resulted in reduced nutrient loadings in the watershed. Due to rising concerns in nearby watersheds, the TSSWCB also included the Sam Rayburn and Toledo Bend Reservoir watersheds in its initiative in 1999. The TSSWCB expanded the poultry initiative again in 2001 to the Gonzales area.

Beginning in 2001, seven soil and water conservation district (SWCD) technicians were employed under federal Clean Water Act §319 contracts to develop WQMPs in poultry producing areas. Six of those contracts expired in 2004 and the seventh expired in 2005. An eighth §319 district technician was hired in 2003 with the Shelby SWCD and that contract expired in August 2007. Two more positions were hired by local SWCDs in FY 2007 to help with WQMP development for the Sanderson Farms expansion in the Waco area. Those contracts have also expired.

In 2001, the 77th Legislature passed Senate Bill 1339, which requires all poultry facilities in Texas to operate in accordance with a WQMP certified by the TSSWCB. The review and certification process assures the plan includes appropriate practices, management measures, and schedules of implementation.

This law provided for a staggered-schedule of deadlines by which each producer, depending on their initial date of operation, must have requested the development of a WQMP from their soil and water conservation district. Any commercial poultry facility constructed after January 1, 2002 is required to have a WQMP prior to the receipt of any birds. All other commercial poultry facilities were required to have a WQMP no later than December 31, 2007.

In October 2007, two technicians were hired by local Soil and Water Conservation Districts, with one expiring in August 2008 and the other in August 2009. Because of expiring contracts and difficulty retaining temporary contract SWCD staff, TSSWCB submitted a 2008-2009 Legislative Appropriations Request for 4 additional FTEs to replace the expiring SWCD technician positions, so as to continue technical assistance for poultry producers in these areas. The budget request was approved by the 80th Texas Legislature and took effect September 1, 2007. The four new positions are located in the four most heavily poultry populated areas of the state which are Shelby, Nacogdoches, Gonzales, and Leon Counties and they also serve the poultry producers in surrounding counties. The 4 new positions are part of the TSSWCB Poultry Program reporting to the Nacogdoches Poultry Office.

Due to changes made by the U.S. Environmental Protection Agency (EPA) to the federal regulations for concentrated animal feeding operations (CAFOs), the Texas Commission on Environmental Quality (TCEQ) adopted a rule change in 2004 that required dry-litter poultry operations larger than 125,000 broilers or pullets, 82,000 layers or breeders, or 55,000 turkeys to operate under a water quality permit. However, due to a federal court decision by the U.S. 2nd Circuit Court of Appeals in February 2005, the EPA issued a notice that the date by which a permit and a Nutrient Management Plan must be obtained was extended to July 31, 2007 and EPA then further extended the date to February 27, 2009. Also in compliance with the court decision, the EPA released additional proposed rule changes in June 2006. Under the new rule, farms that do not actually discharge wastes to waters of the U.S. are not required to apply for permit coverage, thereby eliminating the need for dry-litter operations to apply. In advance of EPA's final rule, TCEQ made a rule change in September 2006 to allow CAFO size dry-litter poultry farms an exemption to permitting if they obtain and follow a WQMP certified by TSSWCB. A supplemental guidance document is available from the TSSWCB for poultry producers that provides requirements in addition to the WQMP that are necessary to stay in compliance with the CAFO rules. Meetings were held in seven different poultry producing locations in January, February, and June 2008 to inform poultry producers of those additional requirements.

Current Issues

Currently, the TSSWCB is aware of 1310 total dry-litter poultry farms, of which 460 (35%) are defined as Concentrated Animal Feeding Operations (CAFO). However, there is an ongoing challenge of identifying new poultry farms continually being constructed and put into production, others going out of business, learning of farms that have changed bird placement numbers, and locating other poultry farms not yet identified. Sanderson Farms has completed its new contract farms in the Waco area to supply a new processing plant that began operation in August 2007. TSSWCB staff has developed or is currently developing WQMPs for all of the known new farms.

In FY 2009, staff in the Poultry WQMP Program continues to develop, update, and review Water Quality Management Plans for poultry producers and provide assistance with all issues related to the Poultry WQMP Program. The Program Supervisor and two Natural Resource Specialists staff the Nacogdoches Poultry Office. There are also three Natural Resource Specialists located in Center, Centerville, and

Gonzales. In addition, two technicians continue to work for local Soil & Water Conservation Districts (SWCD) in Nacogdoches and Shelby Counties to assist the Poultry WQMP Program in the Nacogdoches area. Approximately 537 (41%) of the estimated 1310 dry-litter poultry farms in Texas are located in an eight-county area surrounding Nacogdoches. About 121 (23%) of the 537 farms in the 8-county area are large enough to be defined as Concentrated Animal Feeding Operations (CAFO), which require inspections conducted by TSSWCB staff which could result in needed revisions to their WQMP. In addition, the other existing WQMPs are reviewed regularly for needed updates and revisions. The office also assists other SWCDs in the state with poultry WQMP development and revision and complaint investigations as needed.

Comprehensive Nutrient Management Plan Program

The TSSWCB Comprehensive Nutrient Management Plan (CNMP) Program was developed in response to a control measure recommended in the TMDL *I-Plan for Soluble Reactive Phosphorus in the North Bosque River Watershed*. The I-Plan recommended that dairy producers in the watershed voluntarily develop and implement a CNMP; however, the TCEQ adopted a rule that made the recommendation a requirement. The CNMP Program is confined to the North Bosque River and Leon River watersheds by TSSWCB rule.

A CNMP is a resource management plan containing a grouping of conservation practices and management activities which, when combined into a conservation system, will help ensure that both agricultural production goals and natural resource concerns dealing with nutrient and organic by-products and their adverse impacts on water quality are achieved. A CNMP incorporates practices to utilize animal manure and organic by-products as a beneficial resource. The TSSWCB selected requirements for a CNMP based on the TCEQ rules and regulations required for permitted and unpermitted animal feeding operations and criteria outlined in the Field Office Technical Guide (FOTG), a publication of the USDA NRCS. The FOTG represents the best available technology and is already tailored to meet the needs of SWCDs all over the nation. To be certified by the TSSWCB, the local SWCD, the producer, and the local NRCS Field Office must approve a CNMP.

As of June 1, 2009 the TSSWCB has certified 90 of the 90 CNMPs that have been submitted for approval. The TSSWCB, NRCS, and the Texas Association of Dairymen have held numerous meetings with dairy producers and technical service providers since January 2006 in an effort to facilitate development and submittal of CNMPs.

Coastal Coordination Council

The Texas Coastal Management Program (CMP) was created to coordinate state, local, and federal programs for the management of Texas coastal resources. The program brings federal Coastal Zone Management Act (CZMA) funds to Texas to implement projects and program activities for a wide variety of purposes. The Texas General Land Office (GLO) is responsible for coordinating activities associated with the CMP. The Coastal Coordination Council (CCC), established by the Texas Legislature, administers the CMP; the TSSWCB is a statutorily-authorized member of the CCC.

The CCC is charged with adopting uniform goals and policies to guide decision-making by all entities regulating or managing natural resource use within the Texas coastal area. The CCC reviews significant actions taken or authorized by state agencies and subdivisions that may adversely affect coastal natural

resources to determine consistency with CMP goals and policies. In addition, the CCC oversees the CMP Grants Program and the Small Business and Individual Permitting Assistance Program.

The Coastal Zone Act Reauthorization Amendments (CZARA) §6217, requires each State with an approved coastal zone management program (CMP) to develop a federally approvable program to control coastal NPS pollution. The National Oceanic and Atmospheric Administration (NOAA) and the EPA jointly administer §6217 at the federal level. In Texas, the TSSWCB and the TCEQ hold primary responsibility for the coastal NPS program's development and implementation.

CZARA §6217 calls for implementation of management measures that will control significant NPS pollution to coastal waters. Six source categories are addressed by these measures: agriculture, forestry, urban and developing areas, marinas, wetland/riparian areas, and hydromodification. States can use voluntary approaches combined with existing state authorities to achieve implementation of management measures. However, if the voluntary mechanisms are not effective, States must have backup enforcement authorities in place to ensure that management measures are implemented.

Texas submitted the *Texas Coastal NPS Pollution Control Program* to EPA and NOAA in December 1998. In July 2003, NOAA and EPA issued conditional approval of the Texas Coastal NPS Program. The agricultural and silvicultural portions of the program were approved without conditions. Texas had five years to meet the remaining conditions to gain full approval. States that fail to submit an adequate program (full approval) face penalties including loss of EPA and NOAA funds, including CWA §319(h) NPS grant monies.

In July 2008, the CCC responded to the conditional approval findings of NOAA and EPA. It was anticipated that this response would address the remaining conditions resulting in a fully approved program. However, on May 29, 2009, GLO received comments from NOAA and EPA which concluded that enough progress had been made to lift only one of the conditions. TSSWCB, TCEQ, and GLO plan to meet with NOAA and EPA in the near future to discuss requirements for Texas to fully meet all conditions.

Mechanisms the TSSWCB implements in order to abate agricultural and silvicultural NPS pollution in the coastal zone include the agency's Water Quality Management Plan Program, CWA §319(h) NPS Grant Program, State NPS Grant Program, Total Maximum Daily Load Program, and Watershed Protection Plan Program. These programs are described in detail in other sections of this Report.

Many of the WPPs and TMDLs that the TSSWCB is engaged in are in the coastal zone. WPPs being developed or implemented in the Coastal Zone include Arroyo Colorado, Bastrop Bayou, Armand Bayou and Dickinson Bayou. TMDLs being developed or implemented in the Coastal Zone include Adams and Cow Bayous, Copano Bay and Aransas and Mission Rivers, Dickinson Bayou, and Oso Bay and Creek.

For more information on the Texas Coastal NPS Pollution Control Program, visit our website at http://www.tsswcb.state.tx.us/coastalnps.

Texas Groundwater Protection Committee

Established by the Texas Legislature in 1989, the Texas Groundwater Protection Committee (TGPC) bridges the gap between State groundwater programs, improves coordination between member agencies

and works to protect groundwater as a vital resource; the TSSWCB is a statutorily-authorized member of the TGPC.

The Texas Water Code sets non-degradation of the State's groundwater resources as the goal for all State programs and asserts that groundwater be kept reasonably free of contaminants that interfere with its present and potential uses. The TGPC implements the State's groundwater protection policy which:

- Requires that pollution discharges, waste disposal and other regulated activities not harm public health or impair current or potential groundwater use;
- Recognizes the variability between aquifers;
- Acknowledges the importance of water quality;
- Balances the protection of the environment and the long-term economic health of the state; and,
- Recognizes the use of the best professional judgment of the responsible state agencies to implement the policy.

The Texas Groundwater Protection Committee:

- Reports on its activities and recommends new protection programs to the Legislature.
- Publishes numerous reports.
- Advises the TCEQ on the development of agricultural chemical plans for groundwater.
- Develops, implements and updates a comprehensive Texas Groundwater Protection Strategy and an annual Joint Groundwater Monitoring and Contamination Report.

Mechanisms the TSSWCB implements in order to prevent and abate agricultural and silvicultural NPS pollution impacting groundwater include the agency's Water Quality Management Plan Program, CWA §319(h) NPS Grant Program, State NPS Grant Program, Total Maximum Daily Load Program, and Watershed Protection Plan Program. These programs are described in detail in other sections of this Report. High priority aquifers where TSSWCB has historically committed agency resources include the Seymour Aquifer and the Ogallala Aquifer.

The Texas Water Code requires that the TGPC biennially prepare a report that provides recommendations to improve groundwater protection for legislative consideration and that describes the TGPC's activities for the preceding biennium. The report, *Activities and Recommendations of the Texas Groundwater Protection Committee: A Report to the 81st Legislature*, was published in January 2009. Fourteen groundwater protection recommendations are presented in the report requesting legislative consideration in three topical areas: 1) strengthen groundwater conservation and water quality protection efforts, 2) advance groundwater management and protection through enhanced data collection and availability, and 3) support of groundwater research. Two of the fourteen recommendations specifically are targeted to TSSWCB programs, one of which addresses agricultural NPS pollution:

- Fund Brush-Control Projects to Increase Groundwater Yield – Continue to fund the TSSWCB State Brush Control Program and expand it as funds become available in areas where it is found to be effective and will increase long-term availability of groundwater by increasing recharge of aquifers.
- Encourage On-Farm Agricultural BMP Incentives through Continued Support of Water Conservation Plan Program – Continue support of a program to implement certified water-conservation plans on irrigated agricultural lands through the TSSWCB, with cost-share to assist in implementation of on-farm BMPs.

More information on the TGPC is available at http://www.tgpc.state.tx.us/.

Watershed Approach to Water Quality Planning and Implementation

Protecting the State's rivers, streams, lakes, bays, and aquifers from the impacts of NPS pollution is a complex process. Texas uses a Watershed Approach to focus efforts on the highest priority water quality issues of both surface and ground water. The Watershed Approach is based on the following principles:

- Geographic focus based on hydrology rather than political boundaries;
- Water quality objectives based on scientific data;
- Coordinated priorities and integrated solutions; and,
- Diverse, well-integrated partnerships.

For groundwater management, the geographic focus is on aquifers rather than watersheds. Otherwise, the approach is the same. Wherever interactions between surface and ground water are identified, management activities will support the quality of both resources.

The TSSWCB applies the Watershed Approach to managing NPS pollution by channeling its efforts to restore water quality through WPP and TMDL development and implementation. Specific watersheds where TSSWCB believes agricultural and/or silvicultural NPS pollution may be contributing to a water quality impairment or concern to an extent which is sufficient to justify expenditure of agency resources are listed below and shown on the map (Figure #). Specific information on each watershed, including waterbody name and segment number, overall water quality condition, pollutants of concern, specific mechanism (TMDL, I-Plan, WPP, UAA) being utilized to restore water quality with lead agency indicated, and links to relevant activities associated with restoration of the waterbody, is available at http://www.tsswcb.state.tx.us/watersheds.

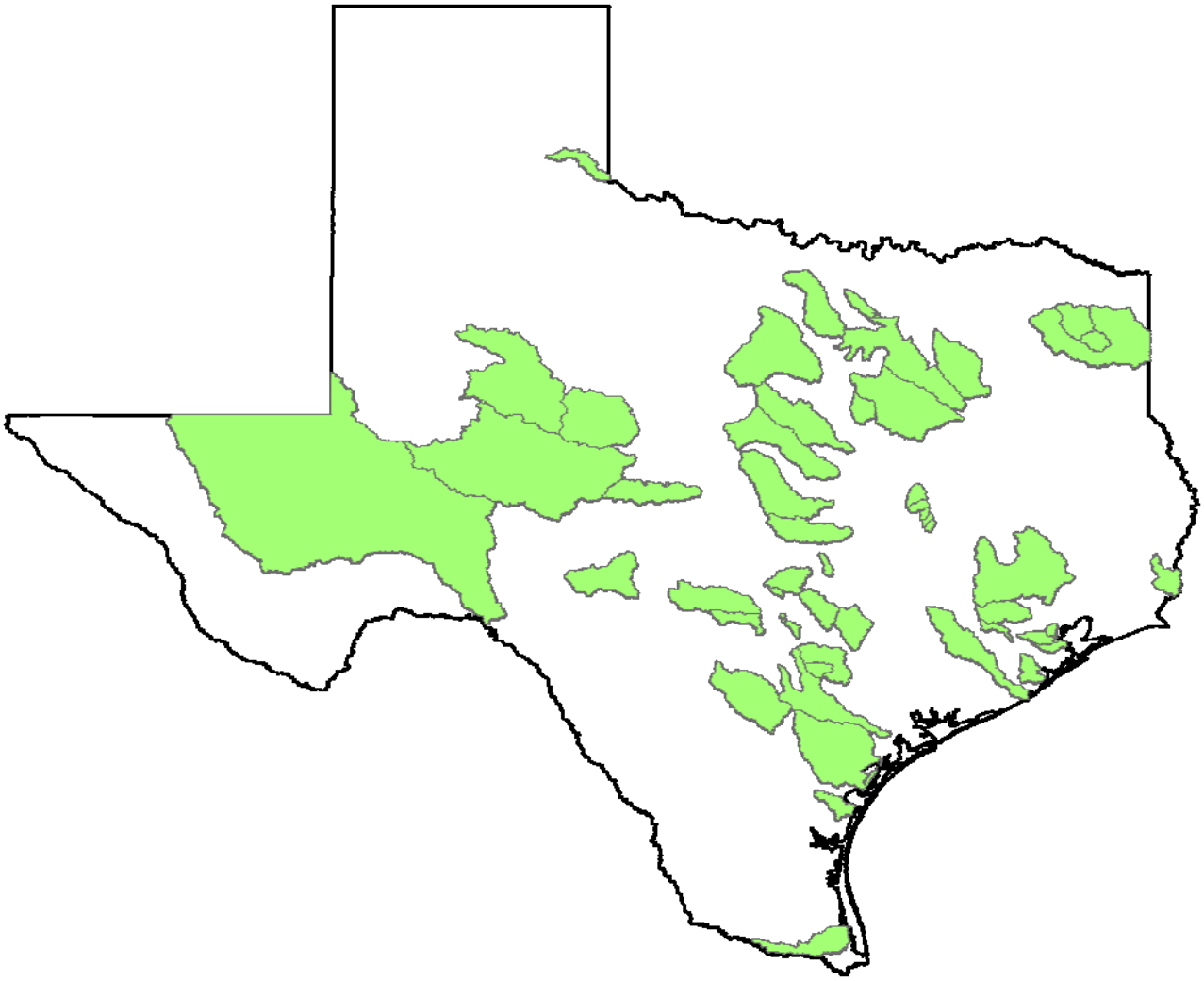


Figure 1 – Map of watersheds where TSSWCB is engaged in water quality planning and implementation.

Adams & Cow Bayous
Aquilla Reservoir
Armand Bayou
Arroyo Colorado
Atascosa River
Bastrop Bayou
Big Cypress Creek
North Bosque River
Brady Creek
Buck Creek
Buffalo & Whiteoak Bayous
Caddo Lake
Cedar Creek Reservoir
Upper Cibolo Creek
Clear Creek
Colorado River below E.V. Spence Reservoir
Concho River
Copano Bay & Mission & Aransas Rivers
Cypress Creek
Dickinson Bayou
Eagle Mountain Reservoir
Elm & Sandies Creeks
Geronimo Creek
Gilleland Creek
Lake Granbury
Lake Granger
Guadalupe River above Canyon Lake
Hickory Creek
Lake Houston
Lake O' the Pines
Lampasas River
Leon River
Little Brazos River Tributaries
Onion Creek
Oso Bay & Creek
Peach Creek
Pecos River
Plum Creek
Richland-Chambers Reservoir
Lower San Antonio River
San Bernard River
South Llano River
E.V. Spence Reservoir
Upper Trinity River
Upper Oyster Creek

This list of "priority" watersheds is frequently updated by the TSSWCB.

Statewide Bacterial Water Quality Impairment Reduction Initiative

According to the *2008 Texas Water Quality Inventory and 303(d) List*, two hundred ninety-five (295) waterbodies are impaired because they do not meet surface water quality standards for bacteria established to protect contact recreation use (in freshwater or saltwater) and/or oyster water use. The magnitude of bacteria impairments in Texas is evident when compared to all other types of water quality impairments. These bacteria impairments represent over 48% of all impairments on the *303(d) List*.

As the lead agency in Texas responsible for the prevention, abatement, and management of NPS pollution from agricultural and/or silvicultural activities, the TSSWCB plays a critical role in addressing water quality impairments for bacteria. Many of these impairments have been attributed, at least in part, to grazing livestock or animal feeding operations.

In order to address these bacteria impairments, TSSWCB has continued to strengthen partnerships with industry commodity organizations including the Texas Farm Bureau, the Texas and Southwestern Cattle Raisers Association, the Independent Cattlemen's Association of Texas, the Texas Poultry Federation, the Texas Association of Dairymen and the Texas Pork Producers Association. Voluntary participation by the members of these organizations in TSSWCB programs, such as the Water Quality Management Plan Program, is crucial to ameliorating any potential contributions of livestock to bacteria impairments.

Working with the USDA Natural Resources Conservation Service (NRCS) and the State Technical Advisory Committee, an Environmental Quality Incentives Program (EQIP) State Resource Concern for Water Quality in South Central Texas was established to provide livestock producers in the Peach Creek, Elm and Sandies Creeks, Atascosa River and Lower San Antonio River watersheds financial assistance in implementing BMPs to prevent and abate NPS pollution from their operations which may be contributing to the bacterial water quality impairment in those watersheds. This financial assistance is leveraged with technical assistance provided by the local SWCDs through CWA §319(h) NPS Grants from TSSWCB.

The magnitude of water quality impairments from excessive bacteria in Texas has resulted in a marked increase in the number of bacteria-related education, assessment, demonstration, and implementation projects initiated and directed by the TSSWCB. Most of these projects are funded through the agency's CWA §319(h) NPS Grant Program, but the agency has utilized other funding mechanisms such as the TSSWCB State NPS Grant Program and the USDA NRCS Grassland Reserve Program. Nearly two dozen projects are currently focused on the abatement of bacterial NPS pollution.

For more information on the TSSWCB Statewide Bacterial Water Quality Impairment Reduction Initiative, visit our website at
http://www.tsswcb.state.tx.us/managementprogram/initiatives/bacteria.

Information Technology

Mobile Workforce Smartphone Rollout

Gone are the days when being out of the office freed an employee from the need to stay connected to coworkers via voice and data services. To better equip the mobile workforce of the TSSWCB, the agency began providing employees with smartphones that include email. calendaring, contact and task management capabilities in addition to voice service.

These devices have worked well for staff due to the good cellular service coverage across most of the state and the flexibility of the devices themselves. User feedback has been positive, with staff noting that smartphone devices can be more easily transported than laptops and that network connectivity is much less problematic while working on a cellular network when compared to the WiFi networks needed by most agency laptops.

In order to reduce costs, the agency is using email polling services through AT&T that are provided at no additional expense. The email polling system connects to the agency's email servers, which are themselves running on open source software, resulting in no direct cost to the agency for software licensing or support.

Making Smartphones (and PCs) Smarter With Groupware

Closely related to the smartphone rollout is an in-house groupware project to provide the backend support for managing some of the data services being provided to smartphone users.

After trials of several groupware products, the agency chose an open source groupware platform that provides calendaring, contact and task management through solutions based on open standards.

The impetus behind this project was to provide a means for managing data between employees' smartphones and their desktop PCs. As the agency has standardized on the open source Mozilla Thunderbird client for email management, the groupware field was narrowed considerably. The groupware product chosen, however, integrates very tightly with the Thunderbird email client on the desktop and uses the open source Funambol server to provide PIM synchronization capabilities with smartphones.

While originally conceived of as an aid to users of smartphones, the groupware system has been recognized as providing a useful expansion of the capabilities of all desktop PC users and an expansion of the groupware's use agency-wide is planned.

As with all network services currently in use at the TSSWCB, this project makes exclusive use of open source software, resulting in no costs to the agency related to software licensing. Support for this project is provided by in-house staff.

Virtual Servers Ease Hardware Migration

A few years ago, the TSSWCB migrated most of its application and network servers to virtual servers as a means of increasing hardware utilization and reducing hardware costs and administrative overhead associated with managing several physical servers.

The move to a virtualized server environment paid out another benefit earlier this year when the TSSWCB accomplished its smoothest, most trouble-free server migration to date.

As part of its continuing efforts to provide robust, secure and highly available network services, the agency migrated a group of its primary application servers from aging server hardware to a new system featuring enhanced component redundancy and improved system monitoring capabilities.

This project involved moving the virtual environments, or containers, of multiple virtual servers that are all hosted on a single physical server. After the new server was installed with a base operating system and

then configured to support virtual server containers, the migration consisted of simply transferring the server containers from one system to another. The result was an incredibly streamlined process that was much faster and easier to accomplish than migrating non-virtualized servers to new hardware.

While there are many virutalization products on the market, the TSSWCB has found a good fit in a mature open source project that is freely available for commercial and private use. An upgrade path to a commercially supported product is available with this software, but thus far the agency has had excellent results running the freely-distributed software with in-house support.

PC Hardware Upgrades

The first half of 2009 also saw a continuation of the work to replace the oldest and most problematic agency desktop PCs with more capable and reliable units. This work was part of a continuous process that aims to lessen the risk of unacceptable levels of downtime that could occur following PC hardware failures.

Each of the machines replaced was at or, in most cases, significantly beyond the PC life cycle recommendations from the Texas Department of Information Resources (DIR).

All purchases were made in accordance with DIR guidelines through a DIR-approved vendor. Most purchases were made using DIR's Buyer's Alert Program, which resulted in notable cost-savings during the purchase phase of this work.

Public Information /Education Report

General Overview

The purpose of the public information/education program is to provide leadership and coordination of information/education programs relating to the agency and district programs, services, operations and resources. The TSSWCB prepares and disseminates public information relative to the agency and district functions, programs, events and accomplishments for the public and to farmers and ranchers. TSSWCB staff coordinates seminars, conferences, workshops, displays at trade shows and training for district directors and district bookkeepers, conservation professionals, youth groups and other entities. Staff provides guidance to districts with their own individual information/education programs as well as regional and state information/education programs initiated by districts. Staff prepares and disseminates press releases, news stories and printed promotional products. The TSSWCB monitors the use of the publications and use of information. Staff represents the agency as needed with various information/education groups and entities. The TSSWCB has a cooperative agreement with the Association of Texas Soil and Water Conservation Districts to provide assistance and help coordinate district involvement and participation with Association’s Information/Education Committee and its programs.

2009 Summer Teacher Workshop

Several teacher workshops are held each summer by soil and water conservation districts in cooperation with the TSSWCB on conservation and natural resource issues. The Texas Environmental Education Advisory Committee to the Texas Education Agency approves the content of these workshops, sponsored

by the TSSWCB. As an approved Environmental Education Professional Development Provider, teachers are able to get 16 credit hours toward their required continuing education units (CEUs) for recertification while experiencing nature and the outdoors.

Pedernales SWCD hosted a Teachers Workshop in Blanco, Texas at the Franklin Family Ranch on June 9-11, 2009. Topics covered were soils, the water cycle, plants in the Texas Hill Country, prescribed burning, and wildlife biology.

2009 Texas Conservation Awards Program

Each year, the Texas State Soil and Water Conservation Board and the Association of Texas Soil and Water Conservation Districts co-sponsor the Texas Conservation Awards Program to recognize and honor those who dedicate themselves and their talents to the conservation and wise use of renewable natural resources. The 2009 Awards Program marks the 31st year of this joint program.

Local districts select their outstanding individuals as winners and submit them by mid-February each year for regional judging. Those selected as regional winners are honored each May at regional Awards Banquets. From these regional winners, a state winner is selected for the Outstanding Conservation Districts, Outstanding Conservation Teacher, Poster Contest, and the Essay Contest. These individuals are invited to the Annual State Meeting for recognition.

The conservation awards program provides competition and incentives to expand and improve conservation efforts, resource development, and increase the wise utilization of renewable natural resources. As a result, soil and water conservation districts, and both rural and urban citizens of Texas are benefited.

Soil and water conservation districts may enter their local recognition honorees in any of 10 categories (East Texas has an additional category of Forestry Conservationist), depending on appropriateness to the category description. For the youth of the district, there is also a poster and essay contest. The categories and a brief description of each are:

Outstanding Conservation District

Awarded to the winning soil and water conservation district in each area for the most outstanding program during the past fiscal year.

Resident Conservation Rancher

Awarded to the outstanding resident conservation rancher in each area. They must be a resident of the district, perform ranching activities within the district and be a cooperator with the district from which the entry was submitted. The rancher may have other business or professional interests.

Resident Conservation Farmer

Awarded to the outstanding resident conservation farmer in each area. They must be a resident of the district, perform farming activities within the district, and be a cooperator with the district from which the entry was submitted. The farmer may have other business or professional interests.

Absentee Conservation Farmer/Rancher

Awarded to the outstanding absentee conservation farmer or rancher in each area. They must reside outside the district, but operate farming or ranching activities within the district and be a cooperator with the district from which the entry was submitted. The person may have other business or professional interests.

Water Quality Management Plan

Awarded to the outstanding Water Quality Management Plan recipient in each area. They must be a district cooperator who has a district approved Water Quality Management Plan and has incorporated water quality into their farming or ranching activities and soil and water conservation work.

Essay Contest –Two Categories (Those 13 and under and those 14 to 18 years of age)

Essays (topic: "Celebrate Conservation") are to be submitted to local soil and water conservation districts for local judging. Each local district will judge the entries and submit three essays to the TSSWCB for competition on the area level. Plaques will be awarded to 1st, 2nd and 3rd place winners on the area level and state winners will be selected from the area winners. This contest is open to students, in two categories, one for those ages 13 and under, and the other category for those ages 14 to 18 years of age and does not jeopardize Texas University Interscholastic League eligibility.

Poster Contest

Posters should address one of the following subjects: "Food for the Future" or "The Living Soil". Posters shall be submitted to local soil and water conservation districts for local judging. Each local district will judge the entries and submit three posters to the TSSWCB for competition on the area level. Plaques will be awarded to the 1st, 2nd and 3rd place winners on the area level and state winners will be selected from the area winners. This contest is open to students, 12 years and under, and does not jeopardize Texas University Interscholastic League eligibility.

Business/Professional Individual

Awarded to the outstanding man or woman in the business community who has rendered the most unselfish conservation service in each area. Representatives of the news media (radio, television, newspaper, magazines, etc) who contribute to or provide support for conservation shall also be considered eligible for this award. (This award is not for individual conservation practices or individuals who, because of employment, assist with or augment the work of the soil and water conservation district.)

Conservation Teacher

Awarded to the outstanding teacher of conservation in schools in each area. Teachers of all grade levels are eligible for this award.

Wildlife Conservationist

Awarded to the outstanding wildlife conservationist in each area. They must be a district cooperator who has incorporated wildlife conservation into their farming and ranching activities.

Conservation Homemaker

Awarded to the outstanding conservation homemaker in each area. The homemaker and or family must own or operate a farm or ranch, be a district cooperator and have knowledge of the conservation programs being implemented.

Conservation District Employee

Awarded to the outstanding soil and water conservation district employee who exhibits a degree of knowledge, skill, ability, and leadership that clearly results in superior job performance far above the basic requirements of the position.

Forestry Conservationist (Area IV only)

Awarded to the outstanding forestry conservationist for the most outstanding farm forestry conservation program in the commercial forest areas of Texas. They must be a district cooperator or an individual who has implemented conservation practices on their land and has done missionary work for conservation and the district program.

Soil & Water Stewardship Public Speaking Contest

The Soil & Water Stewardship Public Speaking Contest is open to high school FFA students interested in soil, water and related renewable natural resource conservation. The contest is aimed at broadening students' interest and knowledge of conservation and how individuals must depend on and take care of the world around them for survival. The contest is coordinated through the Texas FFA, with contests at the local, area and state level. Local winners compete in the 10 state FFA areas and the first and second place winners at the area level compete for the state title. The theme of the 2009 contest is “Dig It! The Secrets of Soil.”

To prepare for the contest, students were to consult with their Agriculture Science teacher and work with their local soil and water conservation district. Students are encouraged to visit with their local SWCD to find out more about conservation practices in their area.

This project is a partnership between the Texas FFA, the Vocational Agriculture Teacher's Association of Texas, The Texas State Soil and Water Conservation Board, and the Association of Texas Soil and Water Conservation Districts. The State Winner of the Soil and Water Stewardship Public Speaking Contest is invited to attend the Annual State Meeting each year and asked to deliver their winning address.

Wildlife Alliance For The Youth

The Wildlife Alliance for Youth (WAY) contests offer opportunities at the local district level for 4-H and FFA students to demonstrate their knowledge of the outdoors on wildlife habitat and management,

wildlife laws, sportsmanship and other factual information on wildlife. The program offers awards to the high scoring FFA chapter in each of the five state regions and awards to the first, second and third place high scoring teams at the state event. It is a powerful tool for students to become involved in conservation and obtain an appreciation for wildlife.

Agriculture Science students, who compete in the WAY Contest, first acquire the foundational knowledge and skills for this event through the Agscience 381 - Wildlife and Recreation Curriculum. The WAY contests address the following nine subject areas in Wildlife and Recreation Management: Wildlife Plant Identification; Wildlife Plant Preferences; Wildlife Biological Facts; Wildlife Habitat; Habitat Management; Game Laws; Hunter and Boater Safety; Compass and Pacing; and Identification Techniques. FFA and 4-H youth should have an understanding of these subject areas before they compete.

The WAY contests are held in the five Texas State Soil and Water Conservation Board areas. Area IV (East Texas) holds their contest in the fall. Area V (North Central), Area I (Panhandle), Area II (West Texas) and Area III (South Texas) all hold their contests in the spring. Each team is certified to the area level by their local SWCD. The WAY State Contest is held each year in one of the geographical areas of the state. Approximately 2,400 youth participate in the statewide competition.

The TSSWCB is the lead agency in sponsoring and organizing the contests. The Association of Texas Soil and Water Conservation Districts, USDA- Natural Resources Conservation Service, Texas Parks and Wildlife Commission, Cooperative Extension service, and the Texas Education Agency, along with local soil and water conservation districts (SWCD), all partner in the success of the youth organization.

State Woodland Clinic and Contest

The Texas State Woodland Clinic and Contest is held annually in the month of April. It is a joint effort between local soil and water conservation districts, Stephen F. Austin University School of Forestry and the NRCS-USDA.

The contest is an opportunity for 4-H and FFA youth to demonstrate their expertise in different aspects of forestry management and skills in identification of needed practices and management techniques. Competition is between teams composed of four members representing either a 4-H Club or a FFA Chapter. Prior to the state contest several local districts conduct contests for 4-H Clubs and FFA Chapters within their district and the surrounding area.

The contest began in the late 1950s and was initiated by local SWCDs and timber industry personnel to develop forestry and woodland curriculum in schools in the commercial timber area of the state (East Texas Piney Woods). The clinic and contest have experienced widespread popularity and now has participation from outside of the commercial timber area on a regular basis. The state participation level for teams averages around 55 teams per year, with the vast majority of teams being composed of FFA Chapters. Winners at the state level are eligible to participate in the four states regional woodland contest held each May in one of four states. Texas, Louisiana, Arkansas and Oklahoma host the regional contest on a rotational basis.

Regional Woodland Contest

The four states regional woodland contest is sponsored by soil and water conservation districts in each of the four states with program and technical support provided by USDA-NRCS and Resource Conservation and Development (RC&D), state organizations and industry personnel. The soil and water conservation districts in Texas hosted the first four states or southern regional woodland contest in 1984.

Each state is allowed to send a maximum of six teams to the regional contest. Each state has a competition that determines the six teams from that state that may enter in the regional contest. Those teams may be composed of individuals representing either a 4-H Club or an FFA Chapter.

Conservation Education Video Library

The Association of Texas Soil and Water Conservation Districts has established and updated a conservation related video library that is maintained by TSSWCB staff on their behalf for the benefit of local districts and educators. Currently, there over 200 conservation-related videos in the library that are available to districts and teachers which includes 30 new titles in DVD format. The Association of Texas Soil and Water Conservation Districts' Public Information/Education Committee pays the first transit postage costs to mail the video(s) to the requester. Postage for returning will be the responsibility of the borrower and all videos must be insured upon return. Borrowing privileges are for a length of two weeks and must be returned upon date specified by the librarian. Videos can be ordered through your local soil and water conservation district or by contacting the TSSWCB. From January to June, there have been 28 videos and 1 DVD of various titles loaned out to districts and teachers across the state..

Nonpoint Source (NPS) Pollution Watershed Flow Model

The NPS model is a hands-on representation of a landscape that allows students to understand how water sources can become polluted from nonpoint sources. The plastic landscape structure has industrial, undeveloped, agricultural, and residential and roadway features complete with individual houses, trees, cars, tractors and cows. When "rain" falls on the model, the runoff flows into a city lake. Using various products to add color to the water, the model demonstrates how potential pollutants are picked up by run-off.

The model is a layout of a watershed that includes all the factors that may contribute to polluting our water. (Urban features such as: factories, parking lots, construction sites, lawn chemicals and golf courses and Rural features such as: forested land, dairies, feedlots, cropland and pastureland). To demonstrate how each type of potential pollutant can enter a water body Kool-Aid and cocoa are used to color “runoff”. Grape Kool-Aid is used to represent pollution from factories and oil from parking lots and roads. Orange Kool-aid represents pollution from lawn chemicals, golf courses, and cropland and pastureland chemicals. Cocoa is used to represent pollution from construction sites, forested land, dairies and feedlots. The Kool-aid and Cocoa are sprinkled on the model in the areas that represent each type of pollutant. Once all the pollutants are sprinkled on the model a spray bottle with water is use to represent rainfall. As the pollutants get wet and start to runoff the students can see how the water carries them to the streams and into the lake where we get our drinking water. Once all the pollutants have run into the lake the students can see how these factors have the potential to make surface waters unattractive and unsafe. This demonstration leads to a discussion about how to protect the water quality and prevent our water from looking like the model.

WATER SUPPLY ENHANCEMENT PROGRAM STATUS REPORT

BACKGROUND:

The 81ST Legislature continued funding for the Water Supply Enhancement Program by providing $4,503,641.00 in General Revenue Funds in FY10. These funds were directed to be used for continuation of brush control projects designated by the Soil and Water Conservation Board.

- Provided the following SWCDs with Water Supply Enhancement Program Updates, Water Supply Enhancement Program Certification, and /or Contracts

Area 2 Districts

North Concho River SWCD
Middle Concho SWCD
Tom Green SWCD
Gillespie County SWCD
Nolan County SWCD
Eldorado-Divide SWCD
Pedernales SWCD

Area 3 Districts

McMullen County SWCD
Caldwell-Travis SWCD
Webb SWCD
LaSalle County SWCD
Comal-Guadalupe SWCD

Area 4 Districts

Harris County SWCD

Area 5 Districts

Archer County SWCD
Lower Clear Fork of the Brazos SWCD
Pecan Bayou SWCD
Bosque SWCD
Little Wichita SWCD

Current Water Supply Enhancement Projects throughout the State and Project Managers:

- Canadian River Project- Rod Goodwin; Canadian River Municipal Water Authority
- Twin Buttes- Tuffy Wood; TSSWCB
- Little Wichita River (Archer and Clay Counties)- Cody York
- Pedernales Project- Melissa Grote
- Guadalupe River Project- Melissa Grote
- Edwards Aquifer Project (Bandera County)-Melissa Grote
- Lake Brownwood Project- Cody York
- Nueces River Project- Tuffy Wood
- Bosque Project- Cody York
- Sam Houston Area Council Boy Scout of America (Bandera)- Cody York
- Sam Houston Area Council Boy Scout of America (Wimberley)- Cody York

Evaluating Watersheds is based on the following criteria as per Chapter 203.053:

In ranking areas under the plan, the board shall consider:

(1) the location of various brush infestations;
(2) the type and severity of brush infestations;
(3) the various management methods that may be used to control brush;
(4) the amount of water produced by a project and the severity of water shortage in the project area; and any other criteria that the board considers relevant to assure that the brush control program can be most effectively, efficiently, and economically implemented

Evaluating Limits on Cost Share Participation as per Chapter 203.154

(a) Not more than 70 percent of the total cost of a single brush control project may be made available as the state's share in cost sharing.
(b) A person is not eligible to participate in the state brush control program or to receive money from the state brush control program if the person is simultaneously receiving any cost-share money for brush control on the same acreage from a federal government program.
(c) The board may grant an exception to Subsection (b) if the board finds that joint participation of the state brush control program and any federal brush control program will:
  (1) enhance the efficiency and effectiveness of a project;
  (2) lessen the state's financial commitment to the project; and
  (3) not exceed 80 percent of the total cost of the project.
(d) A political subdivision is eligible for cost sharing under the brush control program, provided that the state's share may not exceed 50 percent of the total cost of a single project.
(e) Notwithstanding any other provision of this Section, 100 percent of the total cost of a single project on public lands may be made available as the state's share in cost sharing.

Staff Activities

- Evaluate pending application sub basin criteria from all projects
- Assisted Guadalupe Blanco River Authority with potential areas for Water Supply Enhancement Projects
- Assisted 15 landowners with Brush Certifications
- Assisted 1 landowner with Brush Contracts
- Working with TWRI on the Water Supply Enhancement Program to develop a Priority system using GIS
- Met with field staff and discuss potential new projects in respective areas throughout the State

- Pedernales work group meeting held in Johnson City with the Pedernales SWCD and the Gillespie County SWCD
- Met with Rep. Heflin to review Water Supply Enhancement Program
- Attended Independent Cattlemen's Association convention in San Marcos
- Attended Interagency Task Force on Economic Growth and Endangered Species