



Texas State Soil and Water Conservation Board
WATER SUPPLY ENHANCEMENT PROGRAM
2012 ANNUAL REPORT
JANUARY 1, 2012 - DECEMBER 31, 2012

PROGRAM PURPOSE

Primary Goal of the WSE Program

Enhance domestic and municipal uses, including water for sustaining human life and the life of domestic animals, agricultural and industrial uses, which means processes designed to convert materials of a lower order of value into forms having greater usability, commercial value, and Environmental Flows.

Secondary Goal of the WSE Program

Enhance mining and recovery of minerals, power generation, navigation, recreation and pleasure, and other beneficial uses.

PROGRAM BUDGET

FY2012	\$2,135,413	General Revenue
FY2013	\$2,135,413	General Revenue

2012 ACTIVITIES AT A GLANCE

TSSWCB WSE Program staff participated in a variety of activities and meetings in order to communicate and exchange ideas regarding the WSE Program. Staff has been actively working with the Texas Water Development Board to gather information on the water supply need for Texas, and has been collaborating with the Texas Department of Agriculture with respect to water yield enhancement.

To ensure the TSSWCB is targeting areas for WSE, the TSSWCB contracted with the Texas Tech University Water Resources Center and the United States Geological Survey to develop a set of criteria that will likely have the most profound and positive impact on water salvage while maintaining the ecological integrity of the landscape.

The TSSWCB also assembled a Science Advisory Committee to assess the overall effectiveness of the WSE Program, and to establish a process for funding feasibility studies.

WSE Program staff participated in EDYS modeling training provided by Dr. Ken Rainwater and ArcView training provided by Dr. Ernest Fish to gather new information and ideas regarding feasibility studies and updated mapping systems.

A ranking system recommended by the Stakeholder Committee (Dr. Robert Mace, Texas Water Development Board) is the approach that the TSSWCB WSE Program staff will use for ranking projects. Essentially, there are six steps to consider when ranking potential projects:

- Step 1: Water supplies expected to be benefited by the project
- Step 2: Firm yield benefit to water supplies
- Step 3: Water User Groups (WUGs) relying on water supplies
- Step 4: Percent of augmented water supply used by WUGs
- Step 5: Population of WUG
- Step 6: Ranking Index (RI)

To meet the requirements of Texas Agriculture Code Section 203.053 Criteria for Accepting and Prioritizing WSE Projects, subsection (d)(2) projected water yield of areas of the project, based on soil, slope, land use, types and distribution of trees, brush, and other vegetative matter, and proximity of trees, brush, and other vegetative matter to rivers, streams, and channels; the WSE Program staff will digitize this information onto maps submitted with WSE Program applications.

STATUS REVIEWS

Scheduled Follow-up Treatment and Status Review Requirements

The State Board shall continue to require follow-up brush control treatment, at no cost to the State, in its WSE plans.

Status Review Schedule:

Status reviews will be conducted within three to five years after initial treatment of Mesquite, Mixed Brush, Juniper or Saltcedar to determine if the canopy is above 5%. A second status review will be performed eight to nine years after initial treatment.

Policy---If the producer is found out of compliance, he/she will not be eligible for another contract for a period of ten years.

Follow-up Treatment Scheduled in WSE Plan:

Mesquite, Mixed Brush, Saltcedar -	Follow-up treatment is scheduled 3 years after initial treatment if canopy is above 5%
Juniper -	Follow-up treatment is scheduled 8 years after initial treatment if canopy is above 5%

The WSE Contract states:

(2) follow up treatment is to be carried out as specified in an eligible person's WSE plan and status reviews will be conducted

The TSSWCB presents this annual report covering the 2012 calendar year. The 81st Legislature continued funding for the WSE Program by providing \$2,135,413 in General Revenue Funds in FY2012. Along with completing projects from FY2010 and certifying ongoing FY2011 projects, the WSE Program completed all 2012 project allocations in the following six project areas:

- Edwards Aquifer,
- Guadalupe River Watershed,
- Lake Brownwood Watershed,
- Pedernales River Watershed,
- Twin Buttes Watershed, and
- Little Wichita River Watershed.



Below is a table with compiled data regarding Predicted Water Yield on all FY2012 projects.

WATER YIELD FOR FY2012

Twin Buttes Project Annual Increase in Water Yield FY2012

<u>Acres</u>	<u>Target</u>	<u>Increase in Water Yield (gal/acre/year)</u>
3,174	Lake Nasworthy	90,199,060 gal/ac
	<u>Population Served</u>	
	City of San Angelo	

Lake Brownwood Project Annual Increase in Water Yield FY2012

<u>Acres</u>	<u>Target</u>	<u>Increase in Water Yield (gal/acre/year)</u>
1,408	Lake Brownwood	127,971,407 gal/ac
	<u>Population Served</u>	
	City of Brownwood and surrounding areas for industrial, agricultural, and municipal uses	

Little Wichita Project Annual Increase in Water Yield FY2012

<u>Acres</u>	<u>Target</u>	<u>Increase in Water Yield (gal/acre/year)</u>
13,178	Lake Arrowhead and Lake Kickapoo	2,416,692,073 gal/ac

Population Served

City of Wichita Falls and surrounding areas for industrial, agricultural, and municipal uses

The Bosque Project Annual Increase in Water Yield FY2012

<u>Acres</u>	<u>Target</u>	<u>Increase in Water Yield (gal/acre/year)</u>
400	Steel Creek that flows directly into Lake Whitney	41,384,000 gal/ac

Population Served

City of Waco and surrounding areas

Ft Phantom Hill Project Annual Increase in Water Yield FY2012

<u>Acres</u>	<u>Target</u>	<u>Increase in Water Yield (gal/acre/year)</u>
572	Elm Creek that feeds into Lake Fort Phantom	59,179,120 gal/ac

Population Served

City of Abilene and surrounding areas

Palo Pinto Project Annual Increase in Water Yield FY2012

<u>Acres</u>	<u>Target</u>	<u>Increase in Water Yield (gal/acre/year)</u>
725	Lake Palo Pinto	145,600,843 gal/ac

Population Served

City of Mineral Wells and surrounding areas

Guadalupe Project Annual Increase in Water Yield FY2012

<u>Acres</u>	<u>Target</u>	<u>Increase in Water Yield (gal/acre/year)</u>
423	Lake Canyon and Lake Kerrville	26,896,300 gal/ac

Population Served

New Braunfels, San Marcos, and surrounding areas

Pedernales Project Annual Increase in Water Yield FY2012

<u>Acres</u>	<u>Target</u>	<u>Increase in Water Yield (gal/acre/year)</u>
425	Lake Travis	247,577,791 gal/ac

Population Served

Austin and surrounding areas

Edwards Aquifer Project Annual Increase in Water Yield FY2012

<u>Acres</u>	<u>Target</u>	<u>Increase in Water Yield (gal/acre/year)</u>
865	Edwards Aquifer Recharge Zone	137,851,491 gal/ac

Population Served

San Antonio metropolitan area

Grand Total: Acres Treated and Cleared

21,170 Acres

Grand Total: Increase in Water Yield (gal/ac)

3,293,352,085 gal/ac

Grand Total: Acre-ft. Per Year

10,107