1. **Title of Project:** Saltwater Revegetation Demonstration Project

2. **Project Goals/Objectives:** 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. The objective is to stabilize the area and reduce the soil loss to tolerable limits. The final product would be the area shaped with a good cover of vegetation.

3. **Project Tasks:** (1) Implementation of conservation practices on demonstration site (2) Conservation tour of demonstration site

4. **Measures of Success:** Both the gross erosion equation and the revised universal soil loss equation will be used to measure how much soil is being saved for down stream protection. Different plant species will be evaluated to find out which ones are more tolerant to saline soils.

5. **Project Type:** Statewide (); Watershed (); Demonstration (x)

6. **Waterbody Type:** River (); Groundwater (); Other (x)

7. **Project Location:** Northwestern Young County in the Brazos River Watershed


9. **NPS Assessment Report Status:** Impaired (); Impacted (); Threatened (); Other (X)

10. **Key Project Activities:** Hire Staff (); Monitoring (); Regulatory Assistance (); Technical Assistance (); Education (); Implementation (); Demonstration (x); Other ()

11. **NPS Management Program Elements:** Milestones from the “1999 Texas Nonpoint Source Pollution Assessment Report and Management Program”, which will be implemented include: (1) Coordinating with Federal, State, and Local Programs (2) Committing to technology transfer, technical support, administrative support and cooperation between agencies and programs for the prevention of NPS pollution.

12. **Project Costs:** Federal ($15,060); Non-Federal Match ($10,040); Total Project ($25,100)

13. **Project Management:** Texas State Soil and Water Conservation Board

14. **Cooperating Entities:** Young SWCD, NRCS – Graham Field Office, Young County Texas Cooperative Extension, and Turner Seed

15. **Project Period:** 18 months from start date
Problem/Need Statement:
The basis for this project is to provide alternatives to reclaim areas of extremely high salt content due to some natural occurrences, but mainly due to oilfield activity in the past. These areas are unproductive and an eyesore and the loss of vegetation causes downstream sedimentation. The objective is to stabilize the area and reduce the soil loss to tolerable limits. The final product would be the area shaped with a good cover of vegetation.

General Project Description:
This proposed project will be set up as a demonstration project. The NRCS will design diversion terraces to cut off the outside water for protection. They will make recommendation on how to shape the existing gullies and rills and recommend different seeding techniques using an adapted mixture of plants as well as mulching techniques. The Young SWCD will conduct a field day to show results after the project is complete. Before and after photos will provide additional documentation of the project’s success. Additional educational material and advertising for the field day will be provided by Texas Cooperative Extension. Turner Seed Company will provide different varieties of seed at cost or donation.

Task, Objectives, Schedules, and Estimated Costs:

**TASK 1: Implementation of conservation practices on demonstration site**

**Costs:** $14,460 (Federal), $9,640 (Non-Federal), $24,100 (Total)

**Objective:** To implement conservation practices that will help to stabilize the area and reduce soil loss.

- **Subtask 1.1** Install diversion terraces to provide protection from outside water. (Start Date: Month 1; Completion Date: Month 15)

- **Subtask 1.2:** Critical area shaping will be done to smooth existing gullies. (Start Date: Month 1; Completion Date: Month 15)

- **Subtask 1.3:** A proper seedbed will be established for grass seeding. (Start Date: Month 1; Completion Date: Month 15)

- **Subtask 1.4:** Different seeding and mulching methods will be used to establish best grass cover. (Start Date: Month 1; Completion Date: Month 15)

- **Subtask 1.5:** Fertilizer will be applied according to soil test. (Start Date: Month 1; Completion Date: Month 15)

- **Subtask 1.6:** Fencing will be installed to protect area until grass is well established. (Start Date: Month 1; Completion Date: Month 15)

- **Subtask 1.7:** Measure soil savings using gross erosion equation. (Start Date: Month 15; Completion Date: Month 18)

- **Subtask 1.8:** Prepare Quarterly and Final Reports. The Final Report should provide: (1) photo documentation of project activities, (2) soil savings, (3) evaluation of plant species suitable for revegetation, (4) attendance, agenda, and other material from field day, and (5) any other material developed through the project. (Start Date: Month 1; Completion Date: Month 18)

**Deliverables:**
- Quarterly Reports
- Final report at culmination of project in electronic format
**TASK 2: Conservation tour of demonstration site**

Costs: $600 (Federal), $400 (Non-Federal), $1,000 (Total)

**Objective:** To allow landowners to view the results of the demonstration site

*Subtask 2.1:* The Young SWCD will conduct a field day to show results of the project. (Start Date: Month 15; Completion Date: Month 18)

*Subtask 2.2:* The Young SWCD will advertise the field day; make brochures and produce pictures of before and after work of the project. (Start Date: Month 15; Completion Date: Month 18)

*Subtask 2.3:* Additional educational material and advertising the field day will be provided by Texas Cooperative Extension. (Start Date: Month 1; Completion Date: Month 18)

**Deliverables:**
- Attendance list, agenda, and all material from field day
- Any material developed thru project

**Coordination, Roles and Responsibilities:**
Participating organizations and agencies along with their roles in this project include:

- Texas State Soil & Water Conservation Board - Project Lead, Responsible for overall management of project.
- Young SWCD - Responsible for administering project, and conducting field day.
- Natural Resources Conservation Service - Responsible for working in the planning stages with the landowner to decide the plan of action on how the project will be carried out.
- Texas Cooperative Extension - Provide additional educational materials and help advertise the field day.
- Turner Seed – provide seed for revegetation through donation or at cost.

**Measures of Success:**

- Both the gross erosion equation and RUSLE will be used to measure how much soil is being saved for downstream protection. Different plant species will be evaluated to find out which ones are more tolerant to saline soils.

Reference to Project in the NPS Management Program:
Category: Agriculture

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