NONPOINT SOURCE SUMMARY PAGE

FY 01 CWA 319(h)

1/1/2001 to 3/31/2006

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1. TITLE OF PROJECT: North Texas Atrazine Remediation Project. SWCD #535

2. PROJECT GOALS/OBJECTIVES: This project will provide corn and sorghum producers in the Lake Lavon, Lake Tawakoni, and Big Creek Lake watersheds with an opportunity to participate in water quality educational activities, technical assistance, and financial assistance to implement BMPs to reduce the runoff of atrazine; thus restoring these drinking water lakes allowing them to be removed from the State of Texas §303(d) List. This project will be divided up amongst the seven involved Soil and Water Conservation Districts for contracting purposes.

3. PROJECT TASKS: (1) To provide water quality educational opportunities and demonstrations of BMPs which reduce the runoff of atrazine. (2) To provide corn and sorghum producers with technical and financial assistance to aid in the development and implementation of WQMPs to reduce the runoff of atrazine. (3) To compile information on the number, types, and locations of BMPs implemented.

4. MEASURES OF SUCCESS: (1) Implementation of **25** WQMPs. (2) Provide 1 education program describing methods to reduce atrazine runoff. (3) Reduction in percentage of samples exceeding §303(d) list screening criteria (1.5 *u*g/L) to less than 10%. (4) Removal of lakes from §303(d) list.

5. PROJECT TYPE: Statewide ( ) Watershed (X) Demonstration (X)

6. WATERBODY TYPE: River ( ) Lake (X) Wetland ( ) Ground Water ( ) Other ( )

7. PROJECT LOCATION: Basin: (X) Lake Lavon (watershed segment #0821), Lake Tawakoni (watershed segment #0507), and Big Creek Lake (watershed segment #0303A)

8. NPS MANAGEMENT PROGRAM REFERENCE: State of Texas Agricultural/Silvicultural Nonpoint Source Management Program – Approved February 15, 2000.

9. NPS ASSESSMENT REPORT STATUS: Impaired ( ) Impacted ( ) Threatened (X)

10. KEY PROJECT ACTIVITIES: Hire Staff (X) Monitoring ( ) Regulatory Assistance ( ) Technical Assistance (X) Education (X) BMP Implementation (X) Demonstration Project ( ) Other ( )

11. NPS MANAGEMENT PROGRAM ELEMENTS: Milestones 15, 17, 20, 22, 24.

12. PROJECT COSTS: Federal: ($404,200) Local Match: ($89,583) Total Project: ($493,783);

13. PROJECT MANAGEMENT: Texas State Soil and Water Conservation Board

14. PROJECT PERIOD: Three years from start date.

North Texas Atrazine Remediation Project

FY01 CWA Section 319(h)

WORKPLAN

Problem Need/Statement

Lake Lavon, Lake Tawakoni, and Big Creek Lake are listed as threatened by atrazine on the 1999 State of Texas §303(d) List. These lakes are important drinking water supplies for North Texas. To remove this threat, the Texas State Soil and Water Conservation Board will work cooperatively with the Fannin County Soil and Water Conservation District (SWCD), Upper Elm-Red SWCD, Upper Sabine SWCD, Collin County SWCD, Kaufman-Van Zandt SWCD, Delta SWCD, Hopkins-Rains SWCD, Natural Resources Conservation Service (NRCS), Texas Agricultural Extension Service (TAEX), Texas Department of Agriculture, and Texas Agricultural Experiment Station (TAES) to provide water quality education, BMP implementation, technical assistance, and financial assistance to corn and sorghum producers to promote the implementation of BMPs to reduce the runoff of atrazine.

General Project Description

Following are actions that will be undertaken by this project to reduce atrazine runoff to these lakes:

- Provide technical assistance to corn and sorghum producers on appropriate BMPs to reduce atrazine runoff.
- Provide 1 educational event describing methods for reducing atrazine runoff.
- Provide financial assistance to corn and sorghum producers that implement BMPs to reduce atrazine runoff.
- Conduct status reviews on all WQMPs to insure implementation schedules are being followed, and BMPs are being implemented in a timely manner.

Best management practices (BMPs) to reduce the runoff of atrazine will be implemented through the development of Water Quality Management Plans (WQMPs). The objective of WQMP implementation is to achieve a level of pollution prevention or abatement determined to be consistent with State water quality standards. Highest priorities will be given to the implementation of cost effective pollution abatement practices. TSSWCB and SWCDs will determine which landowners receive technical/financial assistance for the development and implementation of WQMPs. Potential BMPs, which may be included in the WQMPs, are:

- Buffer strips
- Integrated pest management (e.g., sprayer calibration, incorporation banding, follow label)
- Terraces and grassed waterways
- Conservation tillage
- Contour farming with strip cropping or buffer strips
- Conversion of cropland to grassland

The TNRCC (Texas Natural Resource Conservation Commission) will evaluate the atrazine levels within each lake. Both the TSSWCB and the TNRCC will maintain communication to ensure that both agencies are working together to achieve the highest level of pollution prevention.

Tasks, Objectives, Schedules, and Estimated Costs

Task 1: Program Coordination and Management

Costs: $15,000 (Federal), $0 (State), $15,000 (Total)

Objective: Organize an integrated team among the multiple agencies and groups involved with the project to efficiently and effectively achieve project goals.

Subtask 1.1: Conduct semi-annual meetings with project participants and landowners to discuss technical assistance activities, project schedule, lines of responsibility, communication needs, and other required tasks. (Month 1 through month 36)

Subtask 1.2: Prepare quarterly and final reports. All progress reports will also be provided to the coordinating committee and project cooperators and participants. (Month 1 to Month 36)

Deliverables

- Quarterly reports documenting project status.
- Final report at culmination of project

Task 2: Water Quality Education and Demonstration of Best Management Practices to Reduce Atrazine

Costs: $30,000 (Federal), $0 (State), $30,000 (Total)

Objective: To promote the implementation of cost effective BMPs that reduce atrazine runoff by informing and educating corn and sorghum producers about appropriate BMPs. Demonstrations will be fully publicized, including on-site signs as appropriate. The demonstration sites will be one of a producer in that respective watershed that has an approved WQMP within the Lake Lavon, Lake Tawakoni, and Big Creek Lake watersheds.

Subtask 2.1: Cooperate with the Fannin County SWCD, Upper Elm-Red SWCD, Upper Sabine SWCD, Collin County SWCD, Kaufman-Van Zandt SWCD, Delta SWCD, Hopkins-Rains SWCD, NRCS, TAEX, TAEX, and Texas Department of Agriculture to provide 1 educational/ training event describing methods for reducing atrazine runoff. (Month 1 through month 36)

Subtask 2.2: Obtain commitments from demonstration participants. The Fannin County SWCD, Upper Elm-Red SWCD, Upper Sabine SWCD, Collin County SWCD, Kaufman-Van Zandt SWCD, Delta SWCD, Hopkins-Rains SWCD, NRCS, and TAEX will assist in selecting the agricultural BMP demonstration participants. (Month 1 through month 36)

Subtask 2.3: Select appropriate agricultural BMPs practices for reducing atrazine runoff and implement at least one demonstration each year of the project in each watershed with assistance from the local SWCD, NRCS, county extension agent, and TAEX. (Month 1 through month 36)

Deliverables:

- Training and workshop schedules, agendas, and participants.
- Status update of progress will be included in quarterly progress reports.
- All educational materials distributed.
- Description of demonstrations, BMPs selected and why, and success of implementation.

- Report describing all relative educational activities performed within the watershed.

Task 3: Development and Implementation of **25** WQMPs

Costs: $339,200 (Federal), $89,583 (State), $428,783 (Total)

Objective: To encourage agricultural landowners to comply with state water quality laws through a traditional voluntary based incentive program and assistance to producers in developing and implementing WQMPs/BMPs.

Subtask 3.1: **The Collin county SWCD will hire a Planner to provide** technical assistance to corn and sorghum producers and develop WQMPs. The Planner will assist development of WQMPs for the Lake Tawakoni and Big Creek watershed. (Month 1 to month 6)

Subtask 3.2: The SWCD, with assistance from TAES and TAEX, and NRCS will send out notifications announcing the availability of assistance for implementing WQMPs, prioritize the WQMP applications and rank landowners based on greatest need of BMP implementation. (Month 1 to Month 36)

Subtask 3.3: The SWCD Planner will provide landowners information on appropriate BMPs and will work with TSSWCB Regional Office in developing and implementing WQMPs. (Month 1 to Month 36)

Subtask 3.4: The SWCD Planner and NRCS will provide landowners with technical assistance in planning and implementing WQMPs. (Month 1 to Month 36)

Subtask 3.5: The SWCD Planner will develop approximately **25** WQMPs in the Lake Lavon watershed. The SWCD Planners will complete all WQMPs with assistance from the NRCS as needed. (Month 1 to Month 36)

Subtask 3.6: TSSWCB will provide technical review and certification of WQMPs. (Month 1 to Month 36)

Subtask 3.7: Conduct status reviews on all WQMPs to insure implementation schedules are being followed, and BMPs are being implemented in a timely manner. (Month 1 to Month 36)

Deliverables:

- **25** WQMPs developed and implemented within each watershed.
- The SWCD planner will submit records of BMPs implemented to date by each producer
- Copies of status reviews

Task 4: Inventory of land use practices and BMPs implemented in the Lake Lavon watersheds.

Costs: $20,000 (Federal), $0 (State), $20,000 (Total)

Objective: To compile and document information on the amount and types of BMPs implemented through WQMPs, Conservation Plans, EQIP contracts, CRP contracts, WHIP contracts, and WRP contracts.

Subtask 4.1: The SWCDs, and NRCS will compile information on the location, numbers, and types of BMPs implemented within the each watershed annually. (Month 1 to Month 36)

Deliverables:

- Annual reports on all BMPs implemented through WQMPs, Conservation Plans, EQIP contracts, CRP contracts, WHIP contracts, and WRP contracts.

Coordination, Roles and Responsibilities:

Participating Agencies and Organizations along with their roles in this project include:

- **Texas State Soil and Water Conservation Board:** Lead agency responsible for technical review and certification of WQMPs. Provide assistance to the local SWCD in the implementation and development of WQMPs. Also assist the local SWCD in inventorying current BMPs and land use practices and the implementation of WQMPs.

- **Soil and Water Conservation District:** Development and implementation of WQMPs.

- **Natural Resources Conservation Service:** Work with and assist local SWCD and TSSWCB in development and implementation of WQMPs.

- **Texas Agricultural Extension Service/Texas Agricultural Experiment Station** – Blackland Research Center: Responsible for education programs and for mapping BMPs, land use practices, and the implementation of BMPs in the Lake Waxahachie watershed.

- **Texas Department of Agriculture:** License applicators. Ensure compliance with label. Assist with education on proper application of atrazine.

Measures of Success:

- Implementation of approximately **25** WQMPs within the Lake Lavon watershed Conduct 4 education programs for local corn and sorghum producers.

- Utilize 3 demonstrations sites of BMPs implemented through this project to reduce atrazine runoff from cropland in each watershed. These sites will be used as an educational tool through out the project.

- Reduce detections of atrazine concentrations in Lake Lavon to levels which remain below the established target level (1.5 *u*g/L) in >90% of the samples.

- Removal of Lake Lavon from the State of Texas §303(d) List. Thus preventing TMDL action.

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