

Composting Support Project in the Bosque River Watershed
Texas State Soil and Water Conservation Board
FY05-13 Clean Water Act Section 319(h)

WORKPLAN

1. Title of Project: Composting Support Project in the Bosque River Watershed

2. Project Goals/Objectives: This project will provide additional funding for the ongoing composting activities in the Bosque and Leon River watershed (project # 00-8 & 02-8). The project will continue to provide technical assistance to composters and dairy operations in order to aid in the development of a marketable-composted product. Financial assistance will be provided to TSSWCB approved contract haulers in order to offset the cost of transportation of raw manure from dairies to the compost facility(s).

3. Project Tasks: (1) Coordination activities among project participants, (2) The project coordinator will provide technical assistance to the dairy and compost industry, (3) Provide financial assistance to TSSWCB approved contract haulers to offset cost of transportation.

4. Measures of Success: Show significant reduction in potential agricultural NPS pollution by the quantity of manure exported from the watershed. The target amount of raw manure to be exported from participating dairy farms during the 36-month FY00-8 project period was 300,000 tons. Since the inception of this project (00-8 & 02-8) approximately 858,862 tons of dairy manure has been hauled to participating compost facilities. It is estimated that an additional 117,000 tons of manure can be hauled to participating compost facilities with the funds provided through this project.

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

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

7. Project Location: Segments 1255 and 1226 of the Bosque Watershed and segments 1221 and 1222 of the Leon Watershed

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 (); Other (); TMDL ()

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

11. NPS Management Program Elements: Milestones No. 15, 17, 20, 22, and 24

12. Project Costs: Federal \$228,000; Non-Federal Match \$152,000; Total Project \$380,000

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

14. Project Period: September 1, 2005 to August 31, 2007

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Problem/Need Statement:

The basis for this project is to provide supplemental funding for project # FY00-8 & FY02-8; thereby continuing the efforts and activities of the Texas State Soil and Water Conservation Board (TSSWCB/State Board) and local Soil and Water Conservation Districts (SWCDs) with respect to the reduction of nonpoint source (NPS) pollution loadings in the Bosque and Leon River Watersheds from agricultural activities. Traditional dairy manure management practices in the North Bosque and Leon River watersheds have led to concerns regarding non-point source pollution of these waters, with particular emphasis the phosphorus contained in the dairy manure.

Segment 1226 (North Bosque River) is impaired according to the 1998 State of Texas 303(d) list, which is the relevant year of listing for this watershed's total maximum daily load (TMDL) development. This segment appeared on the Texas Commission on Environmental Quality (TCEQ) TMDL Development Basin Schedule for 1998. Water quality data contributed by the Texas Institute for Applied Environmental Research (TIAER), low dissolved oxygen and elevated levels of ammonia nitrogen, nitrite/nitrate nitrogen, chlorophyll *a*, orthophosphorus, bacteria and total phosphorus were found in the watershed. Modeling results show this is the result of contaminants originating from municipal wastewater treatment plants, animal feeding operations (AFOs), and animal waste application fields (WAFs). TCEQ approved two TMDLs for phosphorus in the North Bosque River for Segments 1226 and 1255 on February 9, 2001, which were subsequently submitted to and approved by the United States Environmental Protection Agency (USEPA). The Implementation Plan for the two North Bosque River segments was approved by TCEQ in late 2002 and the Texas State Soil & Water Conservation Board (TSSWCB) in early 2003. This project will address the need for nonpoint source related phosphorus reduction measures in the North Bosque River watershed.

Representatives from the region's dairy industry have agreed to export approximately half of the manure produced in the region off of the production farms and into other areas outside of the North Bosque/Leon River watersheds where material can be beneficially used without attendant nonpoint source pollution concerns. This project will provide additional funding for ongoing efforts.

General Project Description:

This project is an addendum, providing supplemental funding to the ongoing compost support project in the Bosque and Leon River watersheds. 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 technical and financial assistance to landowners, haulers and composters in the creation and removal of a marketable-composted product.

Technical assistance is provided to the dairy producers and compost facilities by a contracted entity. The project coordinator, hired by the contractor as part of this project, works with dairy producers, haulers and compost facilities in the creation and removal of marketable compost products within the watershed. The project coordinator works closely with the Dublin TSSWCB Regional Office and local SWCDs to provide technical assistance.

Tasks, Objectives, Schedules, and Estimated Costs:

TASK 1: Project coordination with all entities involved in the project.

Costs: \$80,000 (Federal), \$0 (Match), \$80,000 (Total).

Objective: TIAER and its subcontractor, a project coordinator and administrative assistant, will coordinate the activities of the multiple agencies and groups involved with the project to efficiently and effectively achieve project goals. The project coordinator has established a project coordination group consisting of the following participants: Dairy producers, Composters, Haulers, SWCD, TSSWCB, TCEQ, NRCS, TAES, TCE, EPA, and others as may be deemed appropriate.

Subtask 1.1 The project coordinator will provide guidelines and procedures for dairy producers, haulers, and compost producers who wish to participate in the project. (Start Date: Month 1; Completion Date: Month 24)

Subtask: 1.2 The project coordinator will provide the documentation required for participating manure haulers to receive reimbursement for their manure transport cost. (Start Date: Month 1; Completion Date: Month 24)

Subtask 1.3 The project coordinator will prepare quarterly reports and a final report for submittal to the TSSWCB project manager. All progress reports will also be provided to the Project Coordination group, Cross Timbers SWCD, project cooperators and participants. (Start Date: Month 1; Completion Date: Month 24)

Subtask 1.4 The project coordinator will coordinate and compliment efforts with the TCEQ/TX DOT in the Bosque River Watershed project. (Start Date: Month 1; Completion Date: Month 24)

Deliverables:

- Quarterly Reports
- Draft Final Report
- Final report

Task 2: To provide financial assistance to contract manure haulers to offset cost of transporting raw manure to the TCEQ approved compost facilities.

Costs: \$148,000 (Federal), \$152,000 (Match), \$300,000(Total).

Objective: TSSWCB will contract with the Tarleton State University, Texas Institute for Applied Environmental Research (TIAER) to coordinate project activities and ensure accurate record of all activities associated with this project. TSSWCB approved contract manure haulers will receive financial assistance to offset transportation cost for hauling dairy manure to a compost facility. The hauler will be reimbursed on a ton per mile basis. The hauler will receive a scale ticket from the compost facility. This will be coordinated with TCEQ. The hauler will send the receipt to the project coordinator who will develop vouchers to send to the State Board for reimbursement. TIAER will review vouchers and make sure that the corresponding amount of manure was delivered. TIAER will also conduct regular spot audits to ensure all payment records are accurate and program/state guidelines are being followed. Once reviewed and approved by TIAER, payments will be made electronically to the haulers. TIAER or its subcontractor will also send semi-annual notification to all participating dairies of all TSSWCB approved contract manure haulers.

Subtask 2.1 TIAER or its subcontractor, with close oversight by the State Board will announce the continued availability of financial assistance for the transportation of manure. This will be

accomplished through the production of news articles, letters to producers, as well as meetings and workshops. (Start Date: Month 1; Completion Date: Month 24)

Subtask 2.2 Provide financial incentive payments to haulers based on a calculated set rate. Since October of 2002, the TSSWCB has reimbursed manure haulers at a rate of \$1.35 per ton of manure for the first mile between a dairy and the nearest composting operation, with an additional \$0.10 for each additional mile. Starting October 1, 2005, the TSSWCB will begin reimbursing manure haulers with the new funding at a rate of \$0.90 per ton of manure for the first mile and \$0.08 for each additional mile. On July 1, 2006, the rate will again be reduced to \$0.45 per ton for the first mile, and \$0.04 for each additional mile. Refer to project FY00-8 for further explanation. (Start Date: Month 1; Completion Date: Month 24)

Subtask 2.3 TIAER will ensure records are accurate and program/state guidelines are being followed through regular spot audits. TIAER or its subcontractor will also send semi-annual notification to all participating dairies of all TSSWCB approved contract manure haulers. (Start Date: Month 1; Completion Date: Month 24)

Subtask 2.4 All financial records for this project will be reconciled with State Board records on a monthly basis. Reconciliation forms will be provided by the State Board. (Start Date: Month 1; Completion Date: Month 24)

Deliverables:

- Report on all manure removed from the watershed. TIAER or its subcontractor will keep a database of every load that is delivered to a TCEQ approved compost facility, archive receipts received from haulers, generate vouchers for payment and send a copy of each voucher to the State Board.

Coordination, Roles and Responsibilities:

Participating organizations and agencies along with their roles in this project include:

- **Texas State Soil & Water Conservation Board**- Project lead. Provide financial assistance to contract manure haulers for transportation of manure from dairy producer to composting facility.
- **TIAER**- Coordination of project, provide technical assistance, maintain accurate records of all compost exported from watershed and reporting.
- **Private Sector**- Private composting entities, dairy producers, and haulers will play a vital role in the success of this project, as they will be producing the raw and finished product.

Public Participation:

Dairy producers, manure haulers, and composting companies will be major participants in this project. It is recognized that their participation is essential for a successful project outcome and achievement of project objectives. All reasonable efforts will be made to facilitate their active participation.

Measure of Success:

- Show significant potential reduction in agricultural NPS pollution by the quantity of manure and manure-derived nutrients exported from the watershed.
- 300,000 tons of raw manure was the target amount to be exported from participating dairy farms during the 36-month FY00-8 project period. Since the inception of this project (00-8 & 02-8) approximately 858,862 tons of dairy manure have been hauled to participating compost facilities. It is estimated that an additional 117,000 tons of manure can be hauled to participating compost facilities with the funds provided through this project.

Project Lead:

Name: TJ Helton

Address: P.O. Box 658
Temple, Texas 76503

Phone #: (254) 773-2250

Affiliation: Texas State Soil & Water Conservation Board

E-mail: thelton@tsswcb.state.tx.us

BUDGET

“Composting Support Project in the Bosque River Watershed”
Texas State Soil and Water Conservation Board

<u>Object Class Category</u>	<u>Federal Funds</u>	<u>Non-Federal</u>	<u>Total Cost</u>
1. Personnel	\$0		
Subtotal Personnel	\$0	\$0	\$0
2. Fringe Benefits			
Fringe @ 28%	<u>\$0</u>	<u>\$0</u>	<u>\$0</u>
Subtotal Salary and Fringe	\$0	\$0	\$0
3. Travel	\$0	\$0	\$0
4. Equipment	\$0	\$0	\$0
5. Supplies	\$0	\$0	\$0
6. Contractual			
Financial Incentive Payments to Haulers	\$132,000	\$88,000	\$220,000
Contracting Entity – TIAER	<u>\$96,000</u>	<u>\$64,000</u>	<u>\$160,000</u>
Subtotal Contractual	\$228,000	\$152,000	\$380,000
7. Construction	\$0	\$0	\$0
8. Other	\$0	\$0	\$0
9. Total Direct Costs	\$228,000	\$152,000	\$380,000
10. Indirect Costs	<u>\$0</u>	<u>\$0</u>	<u>\$0</u>
11. Total Project Costs	\$228,000	\$152,000	\$380,000