

**Texas State Soil and Water Conservation Board
Clean Water Act §319(h) Nonpoint Source Grant Program
FY 2018 Project Workplan 18-10**

SUMMARY PAGE						
Title of Project	Coordinating Facilitation and Implementation of the Lavon Lake Watershed Protection Plan (WPP)					
Project Goals	<ul style="list-style-type: none"> Facilitate implementation of management measures identified in the Lavon Lake Watershed Protection Plan. Conduct regularly scheduled stakeholder meetings to provide the Partnership with updates on progress and seek stakeholder input and recommendations on needed activities. Assist the Partnership in identifying and developing proposals to acquire funding for implementation projects, and in managing and tracking implementation efforts. Coordinate and/or conduct water resources and related environmental outreach/education efforts across the watershed. Communicate water quality conditions to the public and the Partnership in order to support adaptive management and expand public knowledge and participation in the Lavon Lake project. 					
Project Tasks	(1) Project Administration; (2) Quality Assurance; (3) Conduct water quality monitoring and data analysis to support adaptive implementation of the Lavon Lake Watershed Protection Plan; (4) Facilitate and Promote Watershed Protection Plan Implementation.					
Measures of Success	<ul style="list-style-type: none"> Provide technical assistance to the Lavon Lake Partnership Evaluate progress toward WPP implementation Increased knowledge of citizens, landowners, and agricultural producers of management measures identified in the WPP 					
Project Type	Implementation (X); Education (X); Planning (); Assessment (); Groundwater ()					
Status of Waterbody on 2014 Texas Integrated Report	<u>Segment ID</u> Segment 0821 – Lavon Lake Segment 0821A – Pilot Grove Creek Segment 0821B – Sister Grove Creek Segment 0821C – Wilson Creek Segment 0821D – East Fork of the Trinity River abv Lavon Lake	<u>Parameter of Impairment or Concern</u> Nitrate Bacteria Bacteria	<u>Category Concern</u> 5c 5c			
Project Location (Statewide or Watershed and County)	The Lavon Lake Watershed in Collin, Fannin, Grayson, and Hunt Counties					
Key Project Activities	Hire Staff (); Surface Water Quality Monitoring (X); Technical Assistance (X); Education (X); Implementation (X); BMP Effectiveness Monitoring (); Demonstration (); Planning (); Modeling (X); Bacterial Source Tracking (); Other ()					
2012 Texas NPS Management Program Reference	<ul style="list-style-type: none"> Component 1 LTG 1, Objectives 1, 3, 6, 7 STG 2, Objective D STG 3, Objective A, B, D, G 					
Project Costs	Federal	\$76,416	Non-Federal	\$70,634	Total	\$147,050
Project Management	<ul style="list-style-type: none"> North Texas Municipal Water District 					
Project Period	December 1, 2018 – May 31,2022					

Part I – Applicant Information

Applicant							
Project Lead		David Cowan					
Title		Watershed Manager					
Organization		North Texas Municipal Water District					
E-mail Address		dcowan@ntmwd.com					
Street Address		201 E Brown St					
City	Wylie	County	Collin	State	TX	Zip Code	75098
Telephone Number	469-626-4416			Fax Number	972 295-6436		

Project Partners	
Names	Roles & Responsibilities
Texas State Soil and Water Conservation Board (TSSWCB)	Provide state oversight and management of all project activities and ensure coordination of activities with related projects and Texas Commission on Environmental Quality (TCEQ).
North Texas Municipal Water District (NTMWD)	Provide project administration and coordination. Serve as watershed coordinator, project reporting, provide assistance for stakeholder relations, and support the implementation of the WPP. Provide coordination of ongoing implementation efforts. Conduct water quality monitoring.
Lavon Lake Watershed Partnership	Collaborate as critical local stakeholders and play a lead role in communicating with other local stakeholders.
Collin County, Fannin County, Upper Elm-Red, and Upper Sabine Soil Water Conservation Districts (SWCD 535, 520, 524 & 530)	Collaborate with SWCD 535, 520, 524, and 530 to track implementation of Best Management Practices (BMPs).

Part II – Project Information

Project Type								
Surface Water	<input checked="" type="checkbox"/>	Groundwater	<input type="checkbox"/>					
Does the project implement recommendations made in (a) a completed WPP, (b) an adopted TMDL, (c) an approved I-Plan, (d) a Comprehensive Conservation and Management Plan developed under CWA §320, (e) the <i>Texas Coastal NPS Pollution Control Program</i> , or (f) the <i>Texas Groundwater Protection Strategy</i> ?				<table border="1"> <tr> <td>Yes</td> <td><input checked="" type="checkbox"/></td> <td>No</td> <td><input type="checkbox"/></td> </tr> </table>	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>
Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>					
If yes, identify the document.		The Lavon Lake Watershed Protection Plan						
If yes, identify the agency/group that developed and/or approved the document.		Lavon Lake Watershed Partnership, facilitated by the North Texas Municipal Water District, Texas A&M AgriLife, and TSSWCB.	Year Developed	2017				

Watershed Information				
Watershed or Aquifer Name(s)	Hydrologic Unit Code (12 Digit)	Segment ID	Category on 2014 IR	Size (Acres)
Lavon Lake Watershed	120301060101	0821 0821A 0821B 0821C 0821D	- CS - NA - NA - NS (5c) - NS (5c)	492,095
	120301060102			
	120301060103			
	120301060104			
	120301060105			
	120301060201			
	120301060202			
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	120301060304			
120301060305				
120301060306				
120301060307				

Water Quality Impairment

Describe all known causes (i.e., pollutants of concern) and sources (e.g., agricultural, silvicultural) of water quality impairments or concerns from any of the following sources: *2014 Texas Integrated Report*, Clean Rivers Program Basin Summary/Highlights Reports, or other documented sources.

Lake Lavon (Segment 0821) is a 492,095-acre watershed in the Trinity River basin with a concern for nitrate. Two major tributaries to Lake Lavon, Wilson Creek (Segment 0821C) and the East Fork of the Trinity River above Lake Lavon (Segment 0821D), are identified as impaired on the 2014 303(d) list due to bacteria. Data used for the 2014 Integrated Report were 22 samples for Wilson Creek and 17 samples for the East Fork of the Trinity River above Lake Lavon, taken during the 7-year period between December 2005 and November 2012. The geometric mean of these data for E. coli bacteria was 164 colony forming units per 100 milliliters (cfu/100 mL) for Wilson Creek and 151 cfu/100mL for the East Fork of the Trinity River above Lake Lavon, which exceed the state standard of 126 cfu/100 mL for waterbodies designated for primary contact recreation.

The 2014 Texas Integrated Report lists the sources of the bacteria impairment for Wilson Creek and the East Fork of the Trinity River above Lake Lavon as unknown. The Integrated Report also lists the source of nitrate in Lake Lavon as unknown. However, analysis conducted in support of the Lavon Lake Watershed Protection Plan indicates that nonpoint sources are the primary cause of bacteria and nutrient pollution in the Lavon Lake watershed. In addition, an analysis of land use/cover showed that rangeland, forests, and agricultural lands represent over 80% of the watershed. Consequently, potential nonpoint source pollution from agricultural operations and rural properties was determined to be a significant source of bacteria, nutrient, and sediment in the Lavon Lake watershed.

Project Narrative

Problem/Need Statement

Lavon Lake is a vital resource for North Texas, providing municipal water supply, flood control, wildlife habitat, and opportunities for recreation. Over 1.6 million North Texas residents rely on Lavon Lake as their primary source of drinking water. The land surrounding the lake supports a wide array of agricultural, industrial, and urban uses. Although the majority of the watershed is rural, the southwestern portion of the watershed is one of the most rapidly developing urban areas in the nation. However, agriculture remains a vital part of the local economy.

Lake Lavon was selected for WPP development in 2016 due to identification of two major tributaries, Wilson Creek and the East Fork of the Trinity River on Lake Lavon, on the 2014 303(d) list as impaired for *E. coli* bacteria (geometric mean = 181 and 168 cfu/100mL, respectively). The TSSWCB projects 16-62 and 17-51 entitled *Data Collection and Development of Essential Components to Support Development of a WPP for Lavon Lake* and *Development of a WPP for Lavon Lake*, respectively, supported development of the Lavon Lake WPP. These projects included water quality monitoring, water quality modeling, formation of the Lavon Lake Watershed Partnership, and WPP development. The WPP development was a stakeholder driven process led by North Texas Municipal Water District and Texas A&M AgriLife, with vital support from TSSWCB. The Lavon Lake Watershed Partnership includes local officials, land and business owners, and private citizens, and is supported by state and federal agency partners. With technical assistance from project staff, the Partnership identified issues that are of particular importance to the surrounding communities, contributed information on land use and activities that helped identify potential sources of pollution, and guided development of the WPP.

Based on an evaluation of existing water quality data and watershed characteristics, the Partnership recommended management measures to reduce bacteria levels in the watershed and prevent pollution from nutrients, sediment, and hazardous substances from reaching harmful levels. Recommendations were made for several categories of nonpoint sources in the watershed, which include: 1) urban areas; 2) wastewater; and 3) agricultural and rural areas. This proposal is in support of implementing these recommendations, with an emphasis on components of the latter two categories.

An active and involved stakeholder group is essential for successful implementation of the Lavon Lake WPP. Communication among project stakeholders and agency partners must be actively maintained to make progress and sustain momentum. Collaborative efforts among project partners will be essential to implement management measures for all three key source categories with specific emphasis on measures identified in Tables 8.1 and 8.2 of the WPP. Substantial emphasis also will be needed on education and training to enable all stakeholder groups and agency partners to work effectively toward full implementation of the Lavon Lake WPP and ultimately achieve the water quality goals that have been established. NTMWD will facilitate and promote active stakeholder involvement and agency cooperation in the implementation of the Lavon Lake WPP through this project.

Project Narrative

General Project Description (Include Project Location Map)

NTMWD will continue to facilitate the Lavon Lake Watershed Partnership through coordination with all key stakeholder groups (cities, counties, agricultural groups, local businesses, HOAs, etc.) and partner agencies (North Central Texas Council of Governments [NCTCOG], Natural Resources Conservation Service [NRCS], SWCDs, TCEQ, etc.). This will include organizing and conducting regular public meetings with the Partnership, as well as other planning and implementation meetings, as necessary and appropriate. NTMWD will promote public participation in meetings, events, and implementation activities through various communication mechanisms, including a semi-annual newsletter, news releases, radio, and other mass media, the project website, and direct correspondence.

NTMWD will facilitate collaborative efforts among project partners to implement management measures for all three key categories of nonpoint source pollution: urban, wastewater and agricultural, including specific emphasis on management measures identified in Tables 8.1 and 8.2 of the Lavon Lake WPP. In particular, this will include working closely with city and county personnel, as well as local and regional state staff, SWCDs, and federal agency staff.

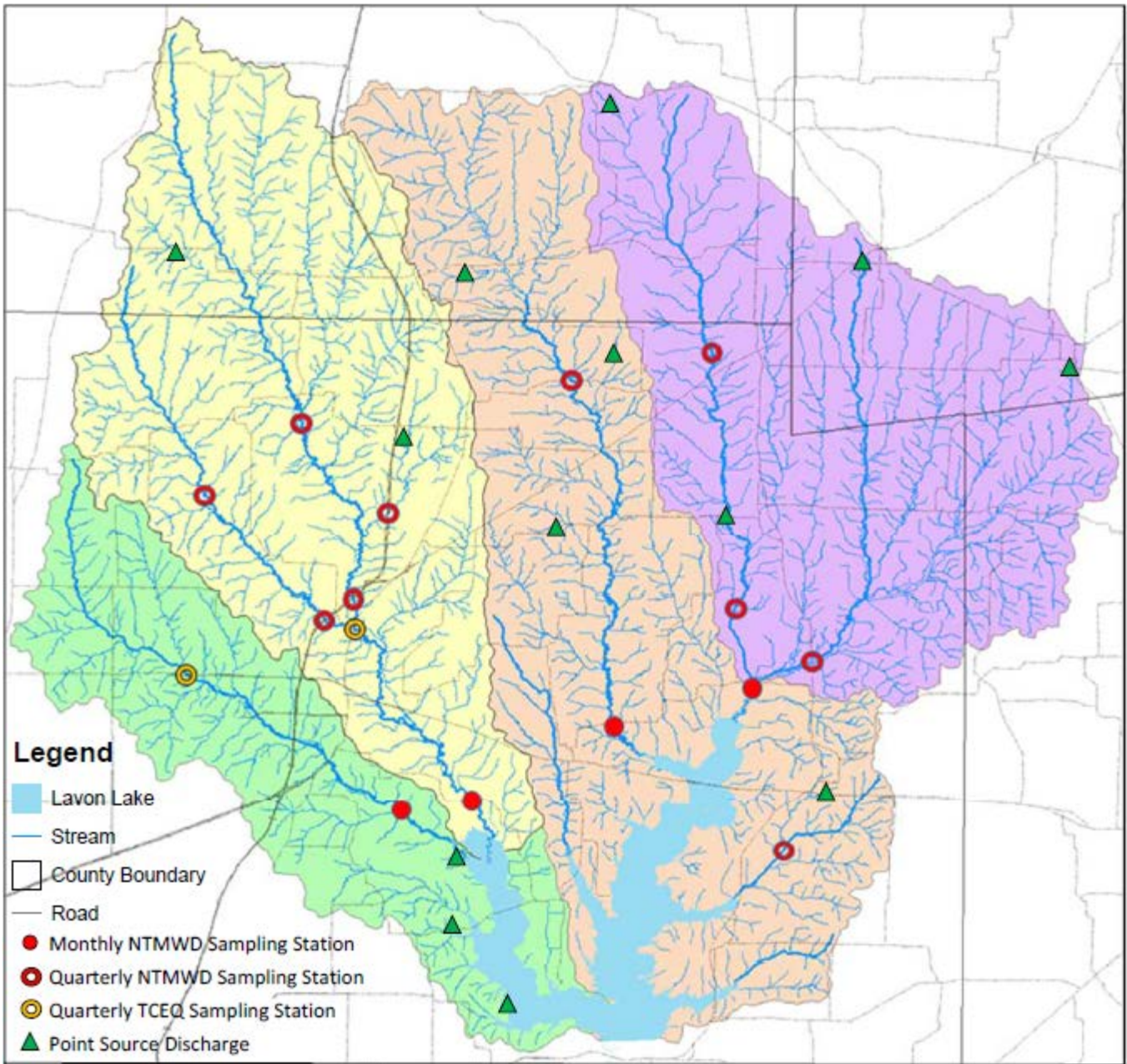
NTMWD will assist governmental and non-governmental organizations in the Lavon Lake watershed with acquisition of resources to enable WPP implementation. This will include the identification of potential funding sources and assistance with the development of proposals and plans of work to secure supplemental funding from both internal (local) and external (state, federal, etc.) sources, as well as tracking and reporting for successful projects, as appropriate.

NTMWD will facilitate and coordinate outreach and education activities in the watershed to promote implementation of recommended management measures. This will include active use of local media outlets (newspapers, newsletters, regional magazines, radio, etc.) to communicate project planning efforts and activities, and development and dissemination of factsheets and other educational resources at public events through the project website. NTMWD will also work with Texas A&M AgriLife (AgriLife) to facilitate and/or conduct a wide range of targeted educational programs consistent with the WPP including: a Texas Watershed Steward Training, Lone Star Healthy Streams workshop, Nonpoint Education for Municipal Officials (NEMO) workshops, Master Gardener/Master Naturalist Programs, Sports and Athletic Field Education, septic system workshops, agricultural nutrient management education, livestock grazing management education, and feral hog management.

In addition, the water quality sampling program initiated to support the development of the WPP will be continued through this project by retaining 4 routine monthly sites and 10 quarterly sites on tributaries to Lavon Lake. The TCEQ will continue to monitor two routine ambient monitoring locations quarterly under the Clean Rivers Program (CRP). NTMWD will collect and analyze samples, track changes in water quality identified through monitoring, communicate results to stakeholders, and facilitate adaptive management activities to continue progress toward addressing nonpoint source water quality concerns in the watershed.

Proposed Monitoring Locations				
Site Name	TCEQ ID	Lat_dd	Lon_dd	Description
Lower Wilson Creek*	21764	33° 8'55.58"N	96°34'59.11"W	Lower Wilson Creek at Hwy 317 near McKinney, TX.
East Fk Trinity River*	22130	33.154360	-96.549415	East Fk of Trinity River at CR 546 in Lowry Crossing, TX.
Lower Sister Grove Creek*	21396	33°12'51.54"N	96°24'8.66"W	Sister Grove Creek Downstream FM1377/Monte Carlo Blvd 1.6 km East of intersection of 6 th St. and FM 1377 near Princeton, TX.
Lower Pilot Grove Creek*	21717	33°12'51.54"N	96°24'8.66"W	Pilot Grove Creek at FM 2756 upstream of Lake Lavon
Headwaters Sister Grove Creek	21767	33°22'3.36"N	96°29'40.78"W	Headwaters of Sister Grove Creek at Hwy 2862, approximately 4 miles NE of Anna, TX.
Pilot Grove Creek	15692	33°15'13.31"N	96°24'44.15"W	Pilot Grove Creek at CR 574, approximately 3 miles South of Blue Ridge, TX in Collin County.
Headwaters Pilot Grove Creek	21768	33°22'48.02"N	96°25'29.68"W	Headwaters of Pilot Grove Creek at CR 584 in Collin County.
Indian Creek	21769	33°13'34.01"N	96°22'24.41"W	Indian Creek at Hwy 78, approximately 4.5 miles North of Farmersville, TX.
Elm Creek	21773	33° 7'39.70"N	96°23'16.41"W	Elm Creek at CR 605 in Collin County, approximately 3 mi SW of Farmersville, TX.
Lower Honey Creek	21776	33°14'47.54"N	96°37'26.71"W	Honey Creek at Hwy 75 in Collin County.
Throckmorton Creek	21777	33°18'3.66"N	96°35'27.24"W	Throckmorton Creek at Hwy 75 in Collin County.
East Fk Trinity River 3	21778	33°15'27.80"N	96°36'34.53"W	East Fk of Trinity River at Hwy 75 in Collin County.
Upper Honey Creek	20932	33°18'40.02"N	96°41'6.52"W	Honey Creek at CR 170 in Collin County.
East Fk Trinity River 4	21779	33°20'58.09"N	96°38'15.38"W	East Fk of Trinity River at CR 210 in Collin County.

*Monthly monitoring sites





**NORTH
 TEXAS
 MUNICIPAL
 WATER
 DISTRICT**

Lavon Lake Watershed

Legend

-  Drainage Basin
-  Area Reservoirs
-  County Boundary
-  Rivers & Streams

0 2 4 8 Miles



Tasks, Objectives and Schedules						
Task 1	Project Administration					
Costs	Federal	\$8,295	Non-Federal	\$5,544	Total	\$13,839
Objective	To effectively administer, coordinate and monitor all work performed under this project including technical and financial supervision and preparation of status reports.					
Subtask 1.1	NTMWD will prepare electronic quarterly progress reports (QPRs) for submission to the TSSWCB. QPRs shall document all activities performed within a quarter and shall be submitted by the 1 st of January, April, July and October. QPRs shall be distributed to all Project Partners.					
	Start Date	Month 1		Completion Date	Month 42	
Subtask 1.2	NTMWD will perform accounting functions for project funds and will submit appropriate Reimbursement Forms to TSSWCB at least quarterly.					
	Start Date	Month 1		Completion Date	Month 42	
Subtask 1.3	NTMWD will host coordination meetings or conference calls, at least quarterly, with Project Partners to discuss project activities, project schedule, communication needs, deliverables, and other requirements. NTMWD will develop lists of action items needed following each project coordination meeting and distribute to project personnel.					
	Start Date	Month 1		Completion Date	Month 42	
Subtask 1.4	NTMWD will develop a Final Report that summarizes activities completed and conclusions reached during the project. The report will also include the extent to which project goals and measures of success have been achieved.					
	Start Date	Month 1		Completion Date	Month 42	
Deliverables	<ul style="list-style-type: none"> • QPRs in electronic format • Reimbursement Forms and necessary documentation in hard copy format • Final Report in electronic and hard copy formats 					

Tasks, Objectives and Schedules						
Task 2	Quality Assurance					
Costs	Federal	\$8,295	Non-Federal	\$5,544	Total	\$13,839
Objective	To develop data quality objectives (DQOs) and quality assurance/control (QA/QC) activities to ensure data of known and acceptable quality are generated through this project.					
Subtask 2.1	NTMWD will develop a QAPP for activities in Task 3 consistent with the most recent versions of <i>EPA Requirements for Quality Assurance Project Plans (QA/R-5)</i> and the <i>TSSWCB Environmental Data Quality Management Plan</i> . All monitoring procedures and methods prescribed in the QAPP shall be consistent with the guidelines detailed in the <i>TCEQ Surface Water Quality Monitoring Procedures, Volume 1: Physical and Chemical Monitoring Methods for Water, Sediment, and Tissue (RG-415)</i> and <i>Volume 2: Methods for Collecting and Analyzing Biological Assemblage and Habitat Data (RG-416)</i> . [Consistency with Title 30, Chapter 25 of the Texas Administrative Code, <i>Environmental Testing Laboratory Accreditation and Certification</i> , which describes Texas' approach to implementing the National Environmental Laboratory Accreditation Conference (NELAC) standards, shall be required where applicable.]					
	Start Date	Month 1		Completion Date	Month 3	
Subtask 2.2	NTMWD will implement the approved QAPP. NTMWD will submit revisions and necessary amendments to the QAPP as needed.					
	Start Date	Month 1		Completion Date	Month 42	
Deliverables	<ul style="list-style-type: none"> QAPP approved by TSSWCB and EPA in both electronic and hard copy formats Approved revisions and amendments to QAPPs, as needed Data of known and acceptable quality as reported through Task 3 					

Tasks, Objectives and Schedules						
Task 3	Conduct water quality monitoring and data analysis to support adaptive implementation of the Lavon Lake Watershed Protection Plan.					
Costs	Federal	\$33,034	Non-Federal	\$28,512	Total	\$61,546
Objective	Conduct water quality monitoring and data analysis to support adaptive implementation of the Lavon Lake Watershed Protection Plan, including evaluation and prioritization of best management practices to improve water quality.					
Subtask 3.1	NTMWD will conduct in-stream water quality monitoring at 4 target locations on a monthly basis for 39 months for selected parameters, analyze and report the data, and participate in two Partnership meetings to share and interpret results. NTMWD will transfer monitoring data to TCEQ for inclusion in the Surface Water Quality Monitoring Information System (SWQMIS).					
	Start Date	Month 3		Completion Date	Month 42	
Subtask 3.2	NTMWD will conduct water quality monitoring at 10 target locations quarterly for selected parameters, analyze and report the data, interpret the results. NTMWD will transfer the data to TCEQ for inclusion in the SWQMIS.					
	Start Date	Month 3		Completion Date	Month 42	
Deliverables	<ul style="list-style-type: none"> Water quality data. Site observation reports. Technical reports detailing water quality. 					

Tasks, Objectives and Schedules						
Task 4	Facilitate and Promote Watershed Protection Plan Implementation.					
Costs	Federal	\$26,792	Non-Federal	\$31,034	Total	\$57,826
Objective	Facilitate the Lavon Lake Watershed Partnership and promote stakeholder implementation of the WPP.					
Subtask 4.1	NTMWD will facilitate public participation and stakeholder involvement in the implementation of the Lavon Lake Watershed Protection Plan, including public Partnership meetings.					
	Start Date	Month 1		Completion Date	Month 42	
Subtask 4.2	NTMWD will assist governmental and non-governmental organizations in the watershed in identification and acquisition of resources (financial and technical) to enable WPP implementation. Extension will actively seek and pursue funding opportunities and work with partners to develop grant proposals. The watershed coordinator will coordinate these activities with state and federal agencies, as appropriate.					
	Start Date	Month 1		Completion Date	Month 42	
Subtask 4.3	NTMWD will lead public education efforts for the project, including mass media (newspaper, radio), maintenance of a project website, educational programs (Texas Watershed Steward, Lone Star Healthy Streams), etc.					
	Start Date	Month 1		Completion Date	Month 42	
Subtask 4.4	NTMWD will develop public outreach and education tools, such as a stream hydrology trailer, educational video on watershed protection topic(s), fact sheets and brochures, etc.					
	Start Date	Month 1		Completion Date	Month 42	
Subtask 4.5	NTMWD will evaluate progress toward achieving milestones established in the WPP, assess water quality data, and provide updates to stakeholders regarding the project.					
	Start Date	Month 1		Completion Date	Month 42	
Deliverables	<ul style="list-style-type: none"> Agendas and attendance lists from Partnership meetings, educational workshops, and other events. Documentation of resource opportunities identified, applied for, and obtained to support WPP implementation. Newsletters, press releases, and other publications developed in support of the project. 					

Project Goals (Expand from Summary Page)
<ul style="list-style-type: none"> Coordinate implementation of the Lavon Lake WPP. Inform, educate and encourage active involvement of the public in implementation of the WPP. Communicate water quality conditions to the public and Partnership in order to support adaptive management of the WPP. Facilitate the Partnership and foster coordinated activities and actions between and among the cities, counties, NCTCOG, TSSWCB, local SWCDs, NRCS, and United States Army Corps of Engineers (USACE). Conduct Partnership meetings to provide regular updates on progress, and seek stakeholder input and recommendations on needed activities. Develop and/or assist with the development of proposals to acquire funding for implementation of management measures, and with managing and tracking implementation projects. Conduct and/or facilitate education and training programs in order to encourage adoption of BMPs. Work with state and federal agencies, as appropriate, to secure and optimize the delivery of technical and financial resources for the watershed. Track and document implementation efforts to assess progress toward achieving milestones established in the WPP. Facilitate public awareness and participation in planning and implementation efforts by actively updating website content and producing a semi-annual newsletter.

Measures of Success (Expand from Summary Page)

- Technical assistance provided to the Partnership through identification and acquisition of resources and funding for implementation efforts.
- Communication of water quality data to the public and Partnership, and use of those data to evaluate progress in achieving water quality restoration.
- Increased knowledge and adoption by citizens, landowners and agricultural producers of management measures identified in the WPP as a result of outreach and education efforts.
- Development and dissemination of factsheets, news releases, newspaper and magazine articles, and a semi-annual newsletter to maintain contact with Lavon Lake stakeholders and promote implementation of the WPP.
- Active management of the project website to announce education and training events, provide project updates and disseminate educational resources to stakeholders.
- Provide regular updates to the Lavon Lake Partnership that describe modifications/updates to goals and milestones, and documents success in achieving goals and milestones for water quality improvement and load reductions.

2012 Texas NPS Management Program Reference (Expand from Summary Page)

Components, Goals, and Objectives

Long-Term Goal One– Protect and restore water quality affected by NPS pollution through assessment, implementation, and education.

- Objective 1 – Focus NPS abatement efforts, implementation strategies, and available resources in watersheds and aquifers identified as impacted by nonpoint source pollution.
- Objective 3 – Support the implementation of state, regional, and local programs to reduce NPS pollution, such as the implementation of strategies defined in TMDL I-Plans, WPPs, and other water planning efforts in the state.
- Objective 6 – Develop partnerships, relationships, memoranda of agreement, and other instruments to facilitate collective, cooperative approaches to manage NPS pollution.

Objective 7 – Increase overall public awareness of NPS issues and prevention activities.

Short-Term Goal Two – Implementation

Objective D – Implement TMDL I-Plans, WPPs, and other state, regional, and local plans developed to restore and maintain water quality in water bodies identified as impacted by NPS pollution.

Short-Term Goal Three – Education

- Objective A – Enhance existing outreach programs at the state, regional, and local levels to maximize the effectiveness of NPS education.
- Objective B – Administer programs to educate citizens about water quality and their potential role in causing NPS pollution.
- Objective D – Conduct outreach through the CRP, AgriLife Extension, SWCDs, and others to enable stakeholders and the public to participate in decision-making and provide a more complete understanding of water quality issues and how they relate to each citizen.
- Objective G – Implement public outreach and education to maintain and restore water quality in water bodies by NPS pollution.

Estimated Load Reductions Expected (Only applicable to Implementation Project Type)

Load reductions expected from this project include those quantified through pre- and post-tests given at educational programs. These will vary depending on the actual programs delivered in the watershed and will be quantified in the project final report based on accepted calculation methods.

Effectiveness monitoring will also allow for pollutant load reductions to be quantified. Water quality data collected through this project can be compared to previously collected data through appropriate statistical analysis to determine if water quality has improved since WPP implementation began.

In addition, Hydrologic and Water Quality System (HAWQS) can be used to simulate the expected load reductions from structural BMPs and land use changes that occur during the course of this project.

EPA State Categorical Program Grants – Workplan Essential Elements
FY 2018-2022 EPA Strategic Plan Reference

Strategic Plan Goal – Goal 1 Core Mission

Strategic Plan Objective – Objective 1.2 Provide for Clean and Safe Water

Part III – Financial Information

Budget Summary				
Federal	\$	76,416	% of total project	60%
Non-Federal	\$	70,634	% of total project	40%
Total	\$	147,050	Total	100%
Category		Federal	Non-Federal	Total
Personnel	\$	27,370	\$ 34,582	\$ 61,952
Fringe Benefits	\$	10,956	\$ 13,832	\$ 24,788
Travel	\$	3,179	\$ 0	\$ 3,179
Equipment	\$	0	\$ 0	\$ 0
Supplies	\$	4,665	\$ 0	\$ 4,665
Contractual	\$	0	\$ 0	\$ 0
Construction	\$	0	\$ 0	\$ 0
Other	\$	20,280	\$ 22,220	\$ 42,500
Total Direct Costs	\$	66,450	\$ 70,634	\$ 137,084
Indirect Costs (≤ 15%)	\$	9,966	\$ 0	\$ 9,966
Total Project Costs	\$	76,416	\$ 70,634	\$ 147,050

Budget Justification (Federal)		
Category	Total Amount	Justification
Personnel	\$ 27,370	NTMWD Watershed Manager (\$48.91/hour x 145 hours = \$21,230) Lab Manager (\$51.45/hour x 40 hours = \$6,140)
Fringe Benefits	\$ 10,956	Calculated at a rate of 40% of total salary
Travel	\$ 3,179	Travel for staff to attend conferences, meetings and educational workshops in support of project tasks. Lodging& transportation at state rate= \$2,604); Participate in state meetings (Clean Rivers Program Basin Steering Committees, Texas Watershed Coordinator Roundtables, and the TSSWCB Annual Directors meeting). Lodging and& transportation at state rate(\$575)
Equipment	\$ 0	N/A
Supplies	\$ 4,665	Projector and screen (\$1,000); Meeting supplies (\$1,990); Monitoring supplies (\$1,675)
Contractual*	\$ 0	N/A
Construction	\$ 0	N/A
Other	\$ 20,280	Printing for publications (\$1,000); Stream hydrology trailer (trailer, accessories, and labor = \$10,700); Educational video development (\$1,000); OSSF homeowner education program (\$1,000); Texas Stream Team monitoring kits and maintenance costs (\$1,340); Enviroscape models and accessories (\$3,000); Conference fees (\$1,500); Advertising (\$740)
Indirect	\$ 9,966	Calculated at 15% of Modified Total Direct Cost

Budget Justification (Non-Federal)		
Category	Total Amount	Justification
Personnel	\$ 34,582	Watershed Manager (\$48.91/hour x 80 hours/year x 3 years = \$11,800) 3 Field Staff (\$24/hour x 3 field staff x 105 hours/year x 3 years = \$22,782)
Fringe Benefits	\$ 13,832	Calculated at a rate of 40% of total salary
Travel	\$ 0	N/A
Equipment	\$ 0	N/A
Supplies	\$ 0	N/A
Contractual*	\$ 0	N/A
Construction	\$ 0	N/A
Other	\$ 22,220	Lab analysis of water samples (\$101/sample x 220 samples = \$22,220)
Indirect	\$ 0	N/A