Texas State Soil and Water Conservation Board
Clean Water Act §319(h) Nonpoint Source Grant Program
FY 2018 Workplan 18-09

SUMMARY PAGE						
Title of Project	Implementing Agricultural Nonpoint Source Components of the Lavon Lake Watershed Protection Plan					
Project Goals	• Provide technical assistance to agricultural producers for the development of Water Quality Management Plans (WQMPs) and implementation of Best Management Practices (BMPs) and track progress • Provide educational programs to increase stakeholders and citizens knowledge about water quality issues in the watershed • Conduct status reviews on WQMPs to track implementation success • Foster coordinated technical assistance activities between TSSWCB, the local SWCD, and NRCS • Inform and coordinate project efforts with local Steering Committee, Watershed Coordinator, and other partners.					
Project Tasks	(1) Project Administration; (2) Promotion and implementation of the TSSWCB WQMP Program					
Measures of Success	• Provide needed technical assistance to agricultural producers; • Development and implementation of WQMPs; • Implementation of management measures outlined in the Mill Creek WPP; • Reduction in potential pollutant loads of streams from NPS pollution from agricultural operations					
Project Type	Implementation (X); Education ( ); Planning ( ); Assessment ( ); Groundwater ( )					
Status of Waterbody on *2014 Texas Integrated Report*	Segment ID 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	Parameter of Impairment or Concern Nitrate Bacteria Bacteria	Category Concern 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 (X); Surface Water Quality Monitoring ( ); Technical Assistance (X); Education (X); Implementation (X); BMP Effectiveness Monitoring ( ); Demonstration ( ); Planning ( ); Modeling ( ); Bacterial Source Tracking ( ); Other ( )					
2012 Texas NPS Management Program Reference	• Component 1 – Long Term Goal – Objectives 1, 2, 3 • Component 1 – Short Term Goal 2 – Objectives A, B, D • Component 1 – Short Term Goal 3 – Objectives A, D, G • Components 2, 3, and 4					
Project Costs	Federal	$215,838	Non-Federal	$0	Total	$215,838
Project Management	• Collin County SWCD					
Project Period	November 1, 2018- August 31, 2023					

Part I – Applicant Information

Applicant							
Project Lead	R.E Aycock, Jr.						
Title	Chairman						
Organization	Collin County SWCD #535						
E-mail Address	collincountyswcd@tx.nacdnet.org						
Street Address	1404 N McDonald St, Suite 100						
City	McKinney	County	Collin County	State	TX	Zip Code	75071
Telephone Number	972-542-0081			Fax Number	972-542-4001		

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 TCEQ.
Collin County Soil and Water Conservation District	Supervise one technician. Develop, implement and maintain WQMPs. Conduct status reviews. Responsible for all project deliverables.
United States Department of Agriculture-Natural Resources Conservation Service (NRCS)	Support SWCD Technician in the development, implementation, and maintenance of WQMPs. Provide training as necessary to the technician.
North Texas Municipal Water District	Support the SWCD Technician in educational program and resource development and delivery and in maintaining communication with the Steering Committee and Watershed Coordinator. Collaborate with Collin County SWCD to track implementation of BMPs for incorporation into future Lavon Lake WPP updates.
Lavon Lake Watershed Steering Committee	Collaborate as critical local stakeholders and play a lead role in communicating with other local stakeholders.

Part II – Project Information

Project Type							
Surface Water	X	Groundwater					
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 *Texas Coastal NPS Pollution Control Program*, or (f) the *Texas Groundwater Protection Strategy*?				Yes	X	No	
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, facilitate 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 120301060102 120301060103 120301060104 120301060105 120301060201 120301060202 120301060203 120301060204 120301060205 120301060206 120301060207 120301060208 120301060301 120301060302 120301060303 120301060304 120301060305 120301060306 120301060307	0821 0821A 0821B 0821C 0821D	- CS - NA - NA - NS (5c) - NS (5c)	492,095

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

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 2014 Trinity River Basin Highlights Report identified nonpoint source runoff as the likely cause of these impairments. The 492,095 acre watershed is made up of approximately 40% rangeland, 20% forest, 17% cultivated crops, 15% urban, and 4% managed pasture. Major agricultural uses include livestock grazing, hay and forage production, and row crop grain production.

Analysis conducted during development of the Lavon Lake WPP indicates that nonpoint source pollution from rural and agricultural lands are a significant source of bacteria, nutrient, and sediment. The Lavon Lake Watershed Partnership and Steering committee recommended that multiple agricultural BMPs be integrated, where appropriate, to address these potential sources. They further recommended that this can best be done by development of voluntary, site-specific management plans for individual farms.

Both the NRCS and TSSWCB offer agricultural producers technical guidance as well as financial incentives for implementation of BMPs. To receive financial incentives from TSSWCB, the landowner must develop a Water Quality Management Plan (WQMP) with the local Soil and Water Conservation District (SWCD) that is customized to fit the needs of their operation. The NRCS offers options for development and implementation of both individual practices and whole farm conservation plans. To facilitate development and implementation of these management plans, the Lavon Lake Watershed Partnership recommended pursuing funding to support a financial incentives program for the Collin County, Fannin County, Upper Elm-Red, and Upper Sabine SWCDs, and the creation of a new technician position to provide assistance in the watershed. This technician is intended to serve the watershed by working one-on-one with local agricultural producers to develop and implement WQMPs.

Project Narrative

General Project Description (Include Project Location Map)

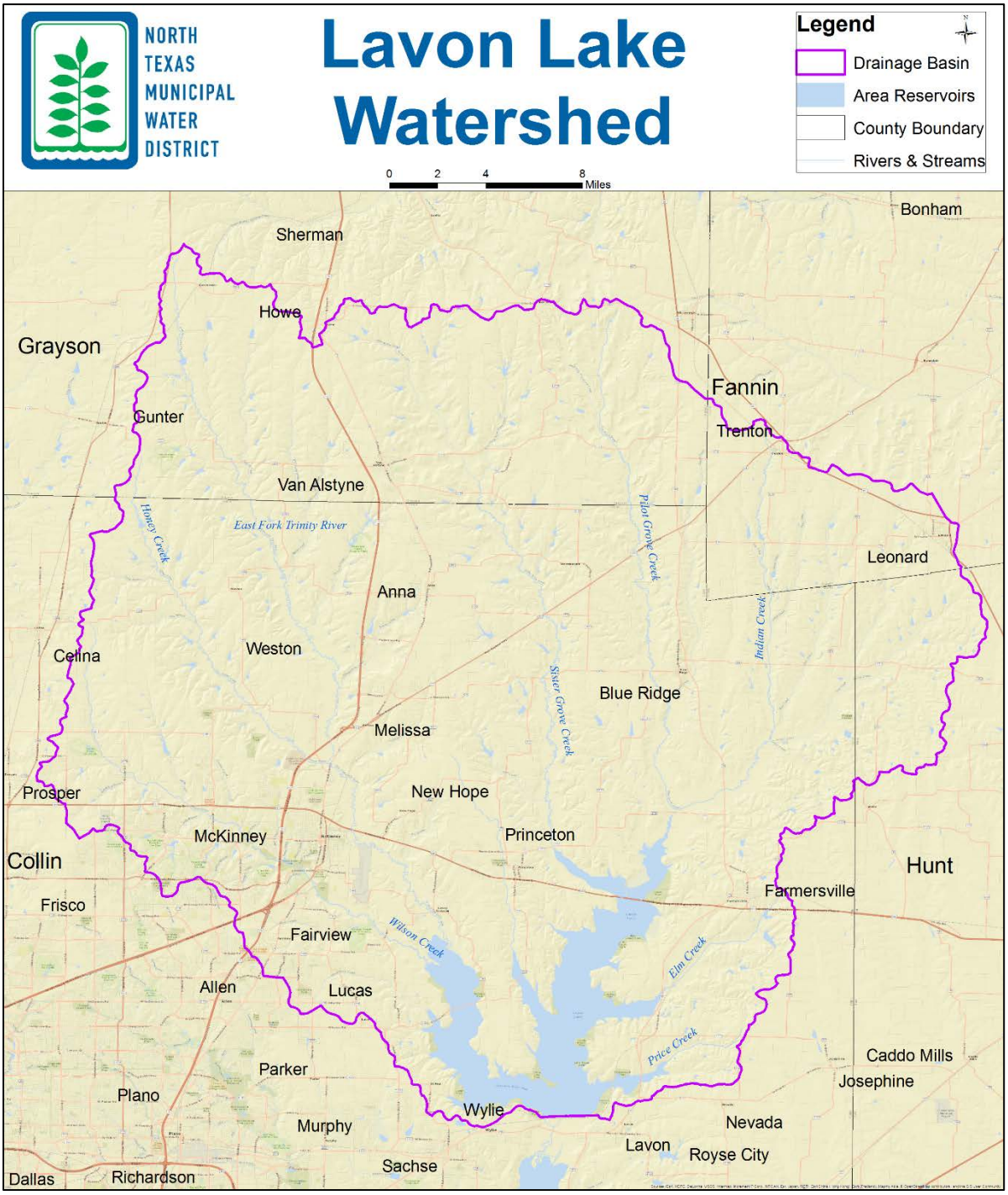
A comprehensive watershed approach focused on the most significant potential sources of NPS pollution contributing to the current impairments was used for WPP development. Recommended BMPs were identified for implementation by the Steering Committee and partner agencies (Table 8.1 in the WPP). This project provides funding to support implementation of recommended agricultural management measures identified for action in the Lavon Lake WPP during the 10-year implementation schedule.

To achieve this goal, the TSSWCB will administer federal CWA §319(h) funds through Collin County SWCD for support of one District Technician who will provide technical assistance to agricultural producers in developing and implementing WQMPs and Prescribed Grazing Plans in the Lavon Lake Watershed. WQMPs are developed according to the NRCS Field Office Technical Guide. Once the WQMP is developed, it will be sent to the appropriate TSSWCB regional office for technical review and certification. Upon certification of the WQMP, the District Technician will work with the landowners to implement the BMPs prescribed in the WQMP.

The District Technician will be placed in the Collin County SWCD office and will work under the direction of the Collin County SWCD, with assistance from the TSSWCB, NRCS, and Watershed Coordinator, as needed. The District Technician also will assist landowners in applying for and obtaining financial incentives to aid in implementation of BMPs prescribed in WQMPs.

The District Technician will conduct annual status reviews on all WQMPs developed and certified through the course of this project to ensure that landowners implement BMPs as specified and agreed to in the WQMP implementation schedule. The District Technician will track utilization of obligated financial incentives and assist landowners in utilizing these funds on schedule. The District Technician will complete an aggregate final report which describes the success of the project including WQMPs developed, BMPs implemented, and financial incentives funds obligated and utilized.

The District Technician also will work with TSSWCB, NRCS and the Watershed Coordinator to educate agricultural producers about water quality issues and how WQMPs and BMPs address NPS pollution from agriculture. The Technician will work with commodity organizations, such as Texas and Southwestern Cattle Raisers Association (TSCRA), Independent Cattlemen's Association of Texas (ICA), Texas Farm Bureau (TFB), and others to educate their members about how BMPs can protect and enhance the value of their operation and achieve water quality goals for the watershed at the same time. The Technician will cooperate and communicate with the Lavon Lake Watershed Steering Committee in order to effectively and efficiently achieve project goals and to summarize activities and achievements made throughout the course of this project.


NORTH TEXAS MUNICIPAL WATER DISTRICT
Lavon Lake Watershed
0 2 4 8 Miles
Legend
Drainage Basin
Area Reservoirs
County Boundary
Rivers & Streams
Bonham
Sherman
Howe
Grayson
Fannin
Gunter
Trenton
Van Alstyne
East Fork Trinity River
Honey Creek
Pilot Grove Creek
Leonard
Anna
Indian Creek
Celina
Weston
Sister Grove Creek
Blue Ridge
Melissa
Prosper
New Hope
McKinney
Princeton
Collin
Hunt
Farmersville
Frisco
Fairview
Wilson Creek
Elm Creek
Allen
Lucas
Price Creek
Caddo Mills
Parker
Josephine
Plano
Wylie
Nevada
Murphy
Lavon
Royse City
Sachse
Dallas
Richardson

Tasks, Objectives and Schedules						
Task 1	Project Administration					
Costs	Federal	$28,641	Non-Federal	$0	Total	$28,641
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	Collin County SWCD 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 1st of January, April, July and October. QPRs shall be distributed to all Project Partners.					
	Start Date	Month 1	Completion Date	Month 58		
Subtask 1.2	Collin County SWCD 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 58		
Subtask 1.3	Collin County SWCD 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. Collin County SWCD will develop lists of action items needed following each project coordination meeting and distribute to project personnel.					
	Start Date	Month 1	Completion Date	Month 58		
Subtask 1.4	Collin County SWCD 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 58		
Deliverables	• 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	Promotion and Implementation of the TSSWCB WQMP Program					
Costs	Federal	$187,197	Non-Federal	$0	Total	$187,197
Objective	To promote WQMP development and implementation, encourage participation, and provide technical assistance to agricultural producers for the development and implementation of WQMPs. Promote the availability of financial incentives to support BMP implementation. Track implementation of WQMPs to achieve load reductions in selected watershed(s).					
Subtask 2.1	Collin County SWCD will hire one District Technician to promote, develop, and implement WQMPs.					
	Start Date	Month 1	Completion Date	Month 58		
Subtask 2.2	The District Technician will identify landowners in priority areas to distribute notifications announcing the availability of technical assistance and financial incentives for developing and implementing WQMPs. The District Technician will develop and distribute flyers, brochures, letters, news releases and other appropriate promotional publications to encourage participation from agricultural producers. TSSWCB must approve all announcements, letters and publications prior to distribution.					
	Start Date	Month 1	Completion Date	Month 58		
Subtask 2.3	The District Technician will work with TSSWCB, NRCS and the Watershed Coordinator to educate producers about water quality issues and how WQMPs and BMPs address pollutant contamination from agriculture.					
	Start Date	Month 1	Completion Date	Month 58		
Subtask 2.4	The District Technician will work with commodity organizations, such as Texas and Southwestern Cattle Raisers Association (TSCRA), Independent Cattlemen's Association of Texas (ICA), and Texas Farm Bureau (TFB), to educate their members on this opportunity to enhance the value of their operation and achieve water quality goals for the watershed at the same time.					
	Start Date	Month 1	Completion Date	Month 58		

Subtask 2.5	The District Technician, with assistance from NRCS and TSSWCB, will assist landowners in the development of WQMPs and associated Prescribed Grazing Plans. The District Technician will develop at least 4 WQMPs but shall strive to develop additional WQMPs beyond the 4.			
	Start Date:	Month 1	Completion Date:	Month 58
Subtask 2.6	The District Technician, with assistance from NRCS and TSSWCB, will assist landowners in applying for and obtaining financial incentives to aid in implementation of BMPs prescribed in WQMPs. Financial incentives will be based on actual costs not to exceed the average cost of the practice.			
	Start Date:	Month 1	Completion Date:	Month 58
Subtask 2.7	The District Technician will prioritize WQMP development and financial incentive applications consistent with the priority areas identified in the WPP.			
	Start Date:	Month 1	Completion Date:	Month 58
Subtask 2.8	The District Technician will conduct annual status reviews on all WQMPs developed and certified through the course of this project and any existing WQMPs (certified prior to this project) in the selected watershed to ensure that landowners implement BMPs as specified and agreed to in the WQMP implementation schedule. The District Technician will document any follow-up technical assistance needed or necessary modifications to the WQMP implementation schedule.			
	Start Date:	Month 1	Completion Date:	Month 58
Subtask 2.9	The District Technician will track utilization of obligated financial incentives. The District Technician, with assistance from TSSWCB and NRCS, will assist landowners in utilizing obligated financial incentives on schedule.			
	Start Date:	Month 1	Completion Date:	Month 58
Subtask 2.10	The District Technician will create a spreadsheet and map describing and showing the location of all WQMPs developed and BMPs implemented through the project. The map will not reveal the identity or exact location of any producer.			
	Start Date:	Month 1	Completion Date:	Month 58
Subtask 2.11	The District Technician will meet monthly with the Collin County SWCD and other parties to efficiently and effectively achieve project goals; summarize activities and achievements made throughout the course of this project; and discuss project activities, project schedule, communication needs, deliverables, and other requirements.			
	Start Date:	Month 1	Completion Date:	Month 58
Subtask 2.12	The District Technician will cooperate and communicate with the local Watershed Coordinator in order to efficiently and effectively achieve project goals and to summarize activities and achievements made throughout the course of this project. Specifically, the District Technician will, at least, participate in any stakeholder meetings held under the auspices of the local Watershed Steering Committee.			
	Start Date:	Month 1	Completion Date:	Month 58
Deliverables	• Promotional and educational publications, as developed and distributed • Status reviews for WQMPs • Map of project area showing location of WQMPs developed; map will not reveal the identity of any landowner			

Project Goals (Expand from Summary Page)
• Provide technical assistance to agricultural producers for the development of Water Quality Management Plans (WQMPs) and implementation of Best Management Practices (BMPs) and track progress • Provide educational programs to increase stakeholders and citizen knowledge about water quality issues in the selected watershed • To conduct status reviews on WQMPs to track implementation success • To foster coordinated technical assistance between TSSWCB, SWCDs, and NRCS • Inform and coordinate project efforts with the local Watershed Steering Committee and Coordinator

Measures of Success (Expand from Summary Page)
• Provide needed technical assistance to agricultural producers • Development and implementation of WQMPs • Implementation of agricultural management measures outlined in the WPP • Reduction in potential pollutant loads of streams from NPS pollution from agricultural operations

2012 Texas NPS Management Program **Reference (Expand from Summary Page)**
Components, Goals, and Objectives
Component One – Explicit short- and long-term goals, objectives and strategies that protect surface and ground water. Long-Term Goal – 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 2 – Support the implementation of state, regional, and local programs to prevent NPS pollution through assessment, implementation, and education. • 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..
Short-Term Goal Two – Implementation – Coordinate the NPS Program to support the implementation of TMDL I-Plans …and other state, regional, and local plans/programs to reduce NPS pollution …[by] target[ing] implementation activities to the areas identified as impacted • Objective A – Work with regional and local entities to determine priority areas and develop and implement strategies to address NPS pollution in those areas. • Objective B – Develop and implement BMPs to address constituents of concern or waterbodies not meeting water quality standards in watersheds indentified as impacted by NPS pollution • Objective D – Implement TMDL I-Plans, WPPs, and other state, regional, and local plans developed to restore and maintain water quality in waterbodies identified as impacted by NPS pollution.
Short-Term Goal Three – Education – Conduct education and technology transfer activities to increase awareness of NPS pollution and activities which contribute to the degradation of water bodies, including aquifers, by NPS pollution • Objective A – Enhance existing outreach programs at the state, regional, and local levels to maximize the effectiveness of NPS education. • 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.
Component Two – Working partnerships and linkages to appropriate state, regional, and local entities, private sector groups, and federal agencies.
Component Three – Balanced approach that emphasizes both statewide NPS programs and on-the-ground management of individual watersheds.
Component Four – Abatement of water quality impairments from NPS pollution and prevention of significant threats to water quality from present and future NPS activities.

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

Estimated load reductions expected from implementing this project are based on information in the Lavon Lake WPP, primarily table 8.1, 8.2, and 8.3.

The goals of the Lavon Lake WPP are to reduce nonpoint source loadings of bacteria (impairment) from identified sources within the watershed. Management measures contained in the WPP focus on bacteria reduction, but through implementing the management measures, reductions in nutrient loading will also be realized. This scope of work will address nonpoint source loadings from agricultural nonpoint sources through development of Water Quality Management Plans for agricultural operations in the watershed. Currently there are very few certified WQMPs in the Lavon Lake watershed.

In order to calculate estimated load reductions, we assumed that, consistent with Subtask 2.5 (and pages 100-101 of the WPP), all WQMPs to be implemented are assumed to be in subwatersheds with the greatest number of operations, operations with the greatest number of animal units, and particularly those located closest to streams and drainage areas. The load reduction from the District Technician agricultural education component in this project is consistent with Table 8.3 for the total load reduction (over the 10 year implementation schedule).

Management Measure		Estimated *E. coli* Load Reductions Expected (cfu/day)
District Technician	Full WPP Implementation	1.93×10^{15}

Participation in the TSSWCB WQMP Program by individual ranchers and farmers is voluntary. The decision to participate is based on a number of factors, including the producer's ability to provide the cost-share match (40% in this project). Adoption of BMPs and participation in the WQMP Program by producers is highly dependent on the success or failure of outreach and education initiatives and social marketing campaigns. Effectiveness of particular BMPs in reducing pollutants is dependent on a myriad of factors, including natural weather phenomena and the ability of producers to correctly install, operate, maintain or manage the BMP. There will be complementary nitrogen and sediment load reductions achieved from livestock and cropland WQMPs, and supplementary bacteria load reductions achieved from livestock and cropland WQMPs. With these factors accounted for, the estimated load reductions to be expected, as presented above, should be regarded as the "best case scenario" with probability that actual load reductions achieved will be less.

The mechanism for reporting pollutant load reductions achieved through implementation of BMPs funded with CWA §319(h) monies is through the EPA Grants Reporting and Tracking System (GRTS). Actual load reductions achieved can only be reported after the BMPs are installed and operational.

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	$	215,838	% of total project	100%
Non-Federal	$	0	% of total project	0%
Total	$	215,838	Total	100%

Category	Federal	Non-Federal	Total
Personnel	$ 185,100	$ 0	$ 185,100
Fringe Benefits	$ 14,808	$ 0	$ 14,808
Travel	$ 9,200	$ 0	$ 9,200
Equipment	$ 0	$ 0	$ 0
Supplies	$ 1,730	$ 0	$ 1,730
Contractual	$ 4,000	$ 0	$ 4,000
Construction	$ 0	$ 0	$ 0
Other	$ 1,000	$ 0	$ 1,000
Total Direct Costs	$ 215,838	$ 0	$ 215,838
Indirect Costs (≤ 15%)	$ 0	$ 0	$ 0
Total Project Costs	$ 215,838	$ 0	$ 215,838

Budget Justification (Federal)		
Category	Total Amount	Justification
Personnel	$ 185,100	1 full-time technician ($173,500) 1 part-time Bookkeeper @ $15-20/hr for 10hrs/month ($11,600)
Fringe Benefits	$ 14,808	Fringe benefits estimated @ 8%
Travel	$ 9,200	11,800 miles @ state rate ($8,200) Per diem @ state rate and hotel expenses @ state rate for 4 overnight trips ($1,000)
Equipment	$ 0	N/A
Supplies	$ 1,730	Office supplies include pens, pencils, paper, printer cartridges, folders, envelopes, mailing labels, flash drives, etc. for SWCD for 4 years ($900); Laptop and printer @ $830
Contractual*	$ 4,000	Financial audit for Collin County SWCD
Construction	$ 0	N/A
Other	$ 1,000	Job posting ($300); NRCS training registration fees ($400); Postage for mail outs ($300)
Indirect	$ 0	N/A

Budget Justification (Non-Federal)		
Category	Total Amount	Justification
Personnel	$ 0	N/A
Fringe Benefits	$ 0	N/A
Travel	$ 0	N/A
Equipment	$ 0	N/A
Supplies	$ 0	N/A
Contractual*	$ 0	N/A
Construction	$ 0	N/A
Other	$ 0	N/A
Indirect	$ 0	N/A