

Texas State Soil and Water Conservation Board
Clean Water Act §319(h) Nonpoint Source Grant Program
FY 2022 Workplan 22-09

| SUMMARY PAGE | | | | | | |
|--|---|---|-----------------|-----------|-------|-----------|
| Title of Project | Coordinating Implementation of the Plum Creek Watershed Protection Plan | | | | | |
| Project Goals | <ul style="list-style-type: none"> To foster coordinated assistance activities for the Plum Creek Watershed Partnership (PCWP) To conduct regular stakeholder meetings to encourage citizen participation, provide partners with updates on progress, and seek stakeholder input and recommendations on needed activities To support and facilitate the PCWP in identifying management measures to improve water quality, developing proposals to acquire funding for implementation of management measures, managing and tracking implementation projects as well as encourage adoption of BMPs Evaluate progress toward achieving milestones established in the WPP Coordinate and conduct water resources and related environmental outreach/education efforts across the watershed | | | | | |
| Project Tasks | (1) Project Administration; (2) Support and Facilitation of WPP Implementation; (3) Outreach, Education, and Community Support | | | | | |
| Measures of Success | <ul style="list-style-type: none"> Provide technical assistance to PCWP Evaluate progress toward achieving milestones and publish an addendum to the WPP Reduction in potential bacteria contamination and nutrient loading for streams from agricultural and urban nonpoint source pollution Increased knowledge of citizens, landowners, and agricultural producers of management measures identified in WPP | | | | | |
| Project Type | Implementation (X); Education (X); Planning (); Assessment (); Groundwater () | | | | | |
| Status of Waterbody on 2020 Texas Integrated Report | <u>Segment ID</u> | <u>Parameter of Impairment or Concern</u> | <u>Category</u> | | | |
| | 1810 | E. coli | 4b | | | |
| | | Fish, Macrobenthic | CN | | | |
| | | Habitat, Ammonia | CS | | | |
| | 1810A | Nitrate, Total Phosphorus | | | | |
| | | E. coli | CN | | | |
| | | Nitrate | CS | | | |
| | | Ammonia | | | | |
| Project Location (Statewide or Watershed and County) | Plum Creek Watershed in Hays, Caldwell, and Travis Counties | | | | | |
| Key Project Activities | Hire Staff (X); Surface Water Quality Monitoring (); Technical Assistance (); Education (X); Implementation (); BMP Effectiveness Monitoring (); Demonstration (); Planning (); Modeling (); Bacterial Source Tracking (); Other (X) | | | | | |
| 2017 Texas NPS Management Program Reference | <ul style="list-style-type: none"> Component One – LTG 1, 2, 3, 6, 7, 8 Component One STG 2D, 3A, 3B, 3D, 3G Components 2, 3, 4, 5, 6 and 8 | | | | | |
| Project Costs | Federal | \$197,161 | Non-Federal | \$131,440 | Total | \$328,601 |
| Project Management | Guadalupe-Blanco River Authority | | | | | |
| Project Period | January 1, 2023 – December 31, 2025 | | | | | |

Part I – Applicant Information

| Applicant | | | | | | | |
|------------------|--------|----------------------------------|-----------|-------|------------|--------------|-------|
| Project Lead | | Elizabeth Edgerton | | | | | |
| Title | | Water Quality Program Supervisor | | | | | |
| Organization | | Guadalupe-Blanco River Authority | | | | | |
| E-mail Address | | eedgerton@gbra.org | | | | | |
| Street Address | | 933 E. Court Street | | | | | |
| City | Seguin | County | Guadalupe | State | TX | Zip Code | 78155 |
| Telephone Number | | 830-379-5822 | | | Fax Number | 830-372-2757 | |

| 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. |
| Guadalupe-Blanco River Authority | Provide project management and oversight. Provide management of the Plum Creek Watershed Coordinator (PCWC), project reporting, provide assistance for stakeholder relations, support the development of final report. Provide coordination of ongoing implementation efforts. Assess water quality data collected through the Clean Rivers Program and monitoring projects in relation to achieving load reductions. Provide local match. |
| Texas A&M ArgriLife Extension Service | Provide training and assistance to the PCWC and PCWP. |
| Plum Creek Conservation District, Hays County, Caldwell County, City of Kyle, City of Buda, City of Lockhart, City of Luling, City of Umland, Hays County Soil and Water Conservation District #351, Caldwell-Travis Soil and Water Conservation District #304, Polonia Water Supply | Members of the PCWP; provide local match. |

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 <i>Texas Coastal NPS Pollution Control Program</i> ; or (f) the <i>Texas Groundwater Protection Strategy</i> ? | | | | | | Yes | X | No | |
| If yes, identify the document. | | Plum Creek Watershed Protection Plan | | | | | | | |
| If yes, identify the agency/group that developed and/or approved the document. | | Plum Creek Watershed Partnership facilitated by Texas A&M AgriLife Extension and TSSWCB | | | Year Developed | 2008 | | | |

| Watershed Information | | | | |
|------------------------------|--|------------|---------------------|--------------|
| Watershed or Aquifer Name(s) | Hydrologic Unit Code (12 Digit) | Segment ID | Category on 2020 IR | Size (Acres) |
| Plum Creek | 110901050702, 110901050703, 111002030102, 111301050208, 111302090204, 120100040204, 120301010104, 120500030306, 120601020401, 120702010804, 120702010805, 120800020403, 121002030401 | 1080 | 4b | 288,240 |

| 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: <i>2020 Texas Integrated Report</i> , Clean Rivers Program Basin Summary/Highlights Reports, or other documented sources. |
| <p>2020 Integrated Report – Impaired due to bacteria with concerns for fish community, macrobenthic community, habitat, ammonia, nitrate, and total phosphorus.</p> <p>Data collected from December 2011 through November 2018 (Segment 1810_01 through 1810_03 and 1810A_01):</p> <p>Bacteria Geomean – 1810_01 (84 samples, 222.40 mean); 1810_02 (85 samples, 362.18 mean); 1810_03 (85 samples, 516.27 mean); 1810A_01 (6 samples, 229.41 mean); Fish Community - 1810_01 (4 assessed, criteria: 42, assessed value: 39); 1810_02 (1 assessed, criteria: 41, assessed value: 38); Macrobenthic Community – 1810_03 (not assessed; listed as concern for impaired macrobenthic community from 2018 IR); Habitat – 1810_01 (4 assessed, criteria: 20, assessed value: 19); 1810_02 (1 assessed, criteria: 20, assessed value: 19); Ammonia - 1810_01 (55 samples, 6 exceed, mean exceed = 0.45); 1810_02 (56 samples, 7 exceed, mean exceed = 0.59); 1810_03 (55 samples, 16 exceed, mean exceed = 1.77); 1810A_01 (6 samples, 1 exceed, mean exceed = 0.60); Nitrate - 1810_01 (84 samples, 40 exceed, mean exceed = 4.36); 1810_02 (85 samples, 71 exceed, mean exceed = 5.87); 1810_03 (85 samples, 67 exceed, mean exceed = 10.53); 1810A_01 (6 samples, 6 exceed, mean exceed = 10.73); Total Phosphorus - 1810_01 (84 samples, 32 exceed, mean exceed = 1.03); 1810_02 (85 samples, 52 exceed, mean exceed = 1.30); 1810_03 (85 samples, 56 exceed, mean exceed = 2.42)</p> <p>Plum Creek Segments 1810_01 through 1810_3 were moved to Category 4b with rationale based on WPP.</p> <p>Clean Rivers Program 2018 Basin Summary Report and Subsequent CRP Monitoring - The 2018 Clean Rivers Program Basin Summary Report for the Guadalupe River Basin and subsequent data collection that contributed to the 2020 IR from the Plum Creek at Plum Creek Road site (monitoring location for uppermost segment, Plum Creek 1810_03) shows trends of diminishing water quality. The most prominent water quality concerns are for nutrient and bacteria concentrations. Plum Creek is effluent dominated and increased nutrient levels are due in part to additional wastewater effluent and nutrient loading as the Cities of Kyle and Buda WWTPs have increased in capacity. This trend is expected to continue as the water quality data shows an increasing trend in total phosphorus concentrations over time. Nitrate nitrogen also shows an increasing trend over time. Spikes in nitrate concentrations appear to be linked to low flow periods when the stream is effluent-dominated. Total phosphorus and nitrate nitrogen are of concern because of</p> |

the potential for promoting nuisance algal blooms that can deplete oxygen in the stream, especially in the early morning hours, degrading the habitat for fish and aquatic invertebrates. The nutrient loading in this AU is most likely linked to the effects of wastewater effluent according to the nitrate nitrogen isotope study performed by the GBRA and USGS. The *E. coli* loading does not appear to be from human sources according to the bacterial source tracking study performed by the GBRA and TAMU SAML, but the rapid urbanization of this AU has forced wildlife out of upland areas and concentrated them in the riparian corridors. Wildlife is potentially being crowded closer to the stream in order to avoid human contact in the more urbanized portions of the watershed.

Several water quality trends were identified by the GBRA in this AU. The median concentration for nitrate nitrogen exceeded the stream screening criteria of 1.95 mg/L in 71 out of 85 measurements at the monitoring site on Plum Creek at CR202 (middle assessment unit). Data from a joint GBRA and USGS study to determine possible nitrate contributions from springs that originate from the underlying Leona formation do not support previous considerations that the springs are a significant contributor to nitrates in Plum Creek. Likely sources of nitrates and total phosphorus concentrations in this segment include wastewater effluent, stormwater that carries in fertilizers and organic material, and failing septic tanks.

Plum Creek's downstream assessment unit, Segment 1810_01, is monitored south of Luling, TX at CR 135. While 1810_01 is listed for a bacteria impairment and concerns for nitrates, total phosphorus, habitat, and fish community, this segment of Plum Creek does maintain higher water quality for most recorded parameters. The CR 135 monitoring location includes a larger proportion of runoff from the most rural portions of the watershed and serves as the most accurate indicator of overall Plum Creek water quality prior to its confluence with the San Marcos River.

Project Narrative

Problem/Need Statement

Plum Creek rises in Hays County north of Kyle, TX and runs south through Caldwell County, passing Lockhart and Luling, eventually joining the San Marcos River at their confluence north of Gonzales County. Plum Creek is 52 miles in length and has a drainage area of 389 mi². According to the 2020 Texas Integrated Report, Plum Creek is impaired by elevated bacteria concentrations (Category 4b) and exhibits concerns for fish, macroinvertebrates, habitat, ammonia, nitrate, and total phosphorus.

The TSSWCB and Texas A&M AgriLife Extension established the Plum Creek Watershed Partnership (PCWP) in April 2006. The PCWP Steering Committee completed the Plum Creek WPP in February 2008. Information about the PCWP, including the WPP and implementation activities, is available at <https://plumcreekwatershed.org/>. Sources of pollutants identified in the Plum Creek WPP include urban stormwater runoff, pet waste, failing or inadequate on-site sewage facilities (septic systems), wastewater treatment facilities, livestock, wildlife, invasive species (feral hogs), and oil and gas production.

The WPP identified responsible parties, implementation milestones and estimated financial costs for individual management measures and outreach and education activities. The plan also described the load reductions expected from the full implementation of all management measures. Since the plan's acceptance by the PCWP, TSSWCB, and EPA, key management measures have been implemented or are in the process of being implemented. Those measures that focus on control of urban nonpoint source pollution, and funded by TCEQ CWA Section 319(h) nonpoint source grants include: 1) adoption of pet waste ordinances and installation of pet waste stations by the cities of Kyle, Lockhart and Luling; 2) urban storm water assessments in Kyle and Lockhart that map current storm water flows and conveyance systems, and identify needs and determine optimal placement of additional storm water controls; 3) funding to retrofit two existing storm water detention basins in the City of Kyle that receive runoff from a significant portion of the city; 4) funding to conduct an illicit discharge survey and install filters on storm drain inlets in the City of Lockhart; 5) street sweeping programs in the cities of Buda, Kyle and Lockhart; 6) resources directed by cities to manage waterfowl populations in city parks and other locations; 7) a low-impact development (LID) implementation and education project by Caldwell

County to retrofit the County's Justice Center with green infrastructure including raingardens, permeable pavers, rainwater harvesting and xeriscape; 8) a LID implementation and education project by the City of Kyle to incorporate green infrastructure and education in the construction of a new administration building for the City's expanded WWTF; and 9) an urban riparian restoration, LID and education project by the City of Lockhart to evaluate riparian hindrances, adopt BMPs including green infrastructure and develop educational signage and materials along the Town Branch Urban Trail which winds through the City's park system.

Measures that have been implemented or are in the process of being implemented that focus on agricultural nonpoint source pollution include: 1) an SWCD Technician located in the watershed that provides technical assistance to agricultural producers for the development and implementation of Water Quality Management Plans (WQMPs) that focus on reducing bacteria loading from livestock operations in targeted areas across the watershed; 2) financial incentives to agricultural producers for implementing best management practices prescribed in the WQMPs which will achieve bacteria load reductions; and, 3) allocation of the Environmental Quality Incentives Program by the USDA- Natural Resources Conservation Service (NRCS). Funding for the development and implementation of WQMPs (1 and 2 above) has been provided through TSSWCB projects 08-07, 08-10, 16-07, and 19-08. A total of 43 WQMPs have been developed on approximately 4,499 acres. It was estimated that a total of 235 management plans on livestock operations and 24 management plans on cropland operations would need to be implemented to achieve estimated bacteria and nutrient load reductions called for in the Plum Creek WPP. As such, there continues to exist a significant need for technical and financial assistance to implement BMPs through WQMPs and other programs including but not limited to the Environmental Quality Incentives Program (EQIP) and Conservation Reserve Program (CRP) in order to achieve the goals identified in the Plum Creek WPP to restore water quality.

Management measures to reduce impacts from invasive species that have been implemented in the watershed include: 1) hiring of an Extension Assistant to conduct one-on-one and group landowner outreach on feral hog management techniques; 2) aerial control and a landowner cooperative trapping program for the removal of feral hogs from the watershed (funded by Texas Department of Agriculture County Hog Abatement Matching Program (CHAMP) grant, with additional funding coming from local participation); and 3) an on-line feral hog activity reporting system to support identification of target areas for implementation of control activities. Funding for feral hog management education (1 and 3 above) has been provided through TSSWCB project 08-07, *Implementing Agricultural Nonpoint Source Components of the Plum Creek Watershed Protection Plan* and TSSWCB project 12-06, *Statewide Delivery of Lone Star Healthy Streams Feral Hog Component and Providing Technical Assistance on Feral Hog Management in Priority Watersheds*.

In 2012, Caldwell County and Hays County each participated in the Texas Department of Agriculture (TDA) Hog Out County Grants program with Caldwell County being awarded a grant in 2013 to continue abatement efforts for feral hogs. Additionally, the Caldwell County Feral Hog Task Force (CCFHTF) was established in 2013 and developed a 5-year Feral Hog Action Plan for Caldwell and Hays County. These counties, through a joint agreement, were also awarded the first ever TDA CHAMP grant for further education and abatement programs for feral hogs. The CCFHTF has continued to receive local funds and TDA grant funds in each 2014, 2015, 2016 and 2017, 2018, and 2019 to continue implementation of the Feral Hog Action Plan in Caldwell County. Efforts of the CCFHTF since 2013 have led to the documented removal of over 17,000 feral hogs from Caldwell County.

Additionally, measures that focus on pollution impacts from wastewater that have been implemented include: 1) voluntary bacteria and nutrient monitoring of effluent by most wastewater treatment facilities in the watershed; 2) replacement of old and degraded sewer pipes and other components of the wastewater collection systems in the Cities of Kyle, Lockhart, and Buda; 3) voluntary adoption of Plum Creek WPP recommended permit limits (5-5-2-1 discharge) by the City of Buda WWTF and Crosswinds WWTF; and 4) current wastewater reuse by the City of Buda and plans underway by the City of Kyle to utilize WWTF effluent reuse for several projects within the City. Measures that focus on pollution impacts from OSSFs include 1) adoption by Hays and Caldwell Counties of new policies and regulations to ensure proper maintenance for new and existing aerobic systems; 2) development in Hays County of a dynamic documentation system to track newly installed septic systems, inspections, and septic violations; and 3) the approval and implementation of an online Homeowner Maintenance of Septic Systems course which allows homeowners in Hays County to maintain their own systems.

In 2013, the City of Buda was awarded funding through the TWDB Clean Water State Revolving Fund to begin planning and design for the decommissioning of failing septic systems and connection of existing homes in the Hillside Terrace subdivision to an existing wastewater treatment facility. Due to the disadvantaged economic status of the subdivision homeowners, the project qualified for 70% loan forgiveness with the remaining portion covered by a joint agreement between the City of Buda and Hays County.

In an effort to support monitoring through the Clean Rivers Program, provide additional insight into current bacteria sources throughout the Plum Creek watershed and strengthen future BMPs for addressing the bacteria impairment, TSSWCB project 16-61, *Bacterial Source Tracking to Support the Implementation of the Plum Creek Watershed Protection Plan*, provided for one year of monthly BST sampling at five sites within the Plum Creek watershed. The project was a joint effort of the TSSWCB, Texas A&M University, GBRA, the City of Kyle and PCWP. Additional BST sampling was also included for Town Branch and funded locally by the City of Lockhart. The results of these studies were analyzed for a new targeted approach to reduce bacteria loading in the Plum Creek watershed. Water samples were collected at five sites in the watershed over a 12-month period. E. coli from wildlife (avian and non-avian) dominated all sources (53%), followed by domestic animals (32%) and human sources (4%). When sources were compared across the five sampling sites, there was generally a decrease in wildlife contributions and an increase in livestock and domesticated animal contributions from the upper to lower portions of the watershed. In all cases, human E. coli represented a small proportion of identified isolates and were primarily found in samples collected below WWTF outfalls.

Water quality monitoring is being conducted by GBRA at three sites on Plum Creek through resources dedicated by TCEQ through the Clean Rivers Program. Through TSSWCB project 19-06, *Surface Water Quality Monitoring to Support the Implementation of the Plum Creek Watershed Protection Plan*, GBRA is conducting intensive targeted monitoring on tributaries, springs, wastewater effluent, urban storm water runoff, and other main stem instream sites.

In addition to being measures used to engage stakeholders and support the development of the WPP, education and outreach programs have been identified by the WPP as critical to the successful implementation and effectiveness of management measures for the reduction of nonpoint source pollution. Activities that have been conducted include 1) household hazardous waste collection events, solid waste community collection events and dozens of stream and illicit dumping site clean ups; and 2) training events that include Texas Watershed Steward Program, Nonpoint Education for Municipal Officials, Sports and Athletic Field Education, on-site sewage system operation and maintenance, Feral Hog Management workshops, Low Impact Development workshop, Riparian Ecosystem workshops and Small Acreage Stewardship workshops among others. TCEQ funded the development of on-line educational modules for information transfer to owners of septic systems, city employees and homeowners, covering operation and maintenance of on-site sewage systems, best practices for urban storm water management at city facilities, and correct disposal of fats, oils and greases, respectively.

Early, local involvement in the development of the WPP was crucial for the successful implementation of the plan. Now that the plan is completed, maintaining a connection with stakeholders and expanding participation will increase the likelihood of success and water quality improvement. To support the different aspects of WPP implementation, obtaining funding, conducting public outreach and increasing participation is still needed.

Texas A&M AgriLife Extension served as the watershed coordinator through the development and implementation of the WPP years 1-3. Texas A&M AgriLife Extension secured funding for implementation measures through grants, has tracked the progress of implementation, and has evaluated and reported water quality trends resulting in the implementation of management measures. As funding for Texas A&M AgriLife Extension ended, it was the desire of the PCWP to continue progress on implementing the Plum Creek WPP by establishing a local watershed coordinator. The WPP states, "In addition to technical and financial assistance required for implementation of management measures and outreach programs, it is recommended that a full-time [Watershed] Coordinator be employed to facilitate continued progress [throughout the 10-year implementation schedule]. This position will oversee project activities, seek

additional funding, organize and coordinate regular updates for the Plum Creek Watershed Partnership, maintain the website, and coordinate outreach and education efforts in the watershed.”

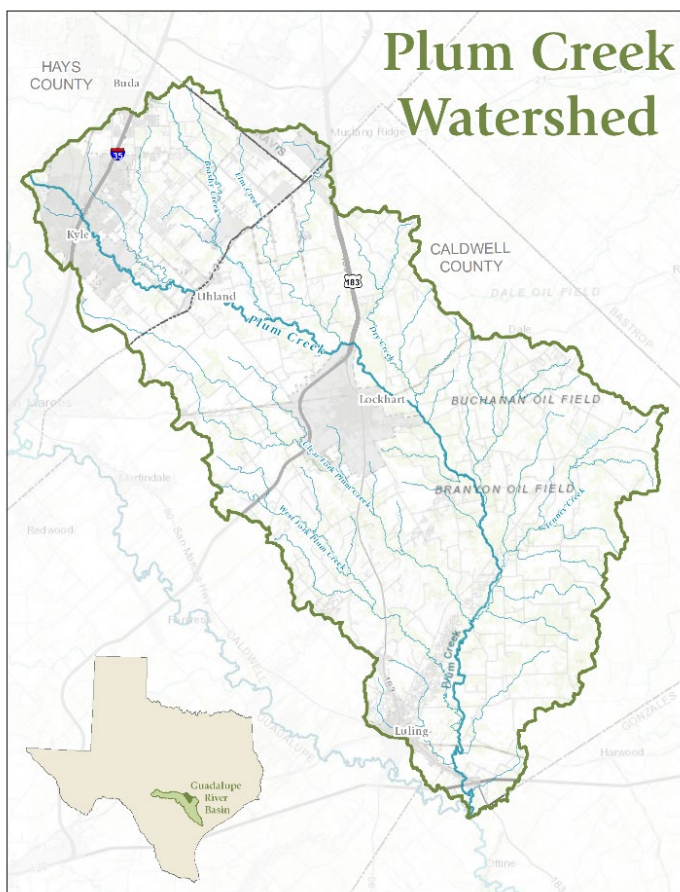
TSSWCB projects 11-07, 14-10, and 18-08 *Coordinating Implementation of the Plum Creek Watershed Protection Plan*, provided funding for a watershed coordinator and the continuation of outreach and education efforts in the Plum Creek watershed. The local watershed coordinator has worked with stakeholders, local governments and organizations, state and federal agencies to acquire funding and develop partnerships toward the full implementation of the Plum Creek WPP. Public participation at quarterly meetings and community projects has increased and new projects have been conceptualized and developed. Having a watershed coordinator employed and officed in the watershed has provided numerous opportunities for engagement with communities and individuals, allowed for rapid response to fish kills and illicit discharges, as well as an enhanced presence and awareness of the PCWP. The watershed coordinator’s efforts to: acquire funding and develop partnerships for the continuation of the Hillside Terrace Project; facilitate new approaches to feral hog management, and engage new and existing developers has led to a tremendous media presence in the watershed, bringing awareness of the PCWP and watershed protection planning process to a large cross-section of the public.

The continuation of this project is a critical component of the Plum Creek WPP and will serve as an example to other watershed groups seeking to learn from the PCWP’s experiences, setbacks and successes. The Plum Creek WPP serves as a guide for new and existing WPPs in both the planning and implementation phases. The hiring of a local watershed coordinator is an example of the vision and dedication of the stakeholders in the watershed in the WPP implementation process. The Interlocal Agreement entered into by 12 entities within the Plum Creek watershed in 2011 was renewed in 2014, 2017, and 2021. The Plum Creek Interlocal Agreement is a testament to the commitment of local stakeholders to this process and to the value that they see in funding a local watershed coordinator.

Project Narrative

General Project Description (Include Project Location Map)

Through a local presence in watershed, the Plum Creek Watershed Coordinator (PCWC) will continue to serve as the primary conduit for interaction with landowners, citizens, and entities to facilitate the implementation of the WPP. The PCWC will coordinate meetings with the PCWP Steering Committee and Work Groups to update them, seek their input and recommendations on needed activities, and continue to support and facilitate implementation efforts of the plan. The



PCWC will continue to assist the cities, counties, local boards and businesses to identify management measures to improve water quality and acquire resources to enable WPP implementation. The PCWC will work with state and federal agencies, as appropriate, to bring technical and financial assistance to the watershed.

As part of an adaptive management approach embraced by stakeholders, the PCWC will continue to evaluate progress toward achieving milestones established in the WPP, assess water quality data in relation to achieving load reductions, and publish a biennial addendum to the Plum Creek WPP that describes updates to goals and milestones and successes.

Coordination of outreach and education efforts by the PCWC will facilitate and support public participation by private individuals and local officials in the implementation of the Plum Creek WPP. The PCWC will develop reports, publications, website and social media content, to promote and communicate watershed pollution prevention efforts. Additionally, the PCWC will coordinate and conduct water resources and educational outreach education efforts across the watershed, organizing the following programs: riparian education workshops, OSSF maintenance workshop for homeowners; and aerobic system operation and maintenance workshops for homeowners. The PCWC will also continue to organize and support other

outreach and educational opportunities supported by Texas A&M AgriLife Extension, TSSWCB, TCEQ and local community programs throughout the watershed including Feral Hog Management Workshops, Low Impact Development Workshops, Healthy Lawns and Healthy Waters program, Texas Well Owner Network Trainings, Texas Watershed Steward Trainings and others.

The PCWC will continue to work with local governments to address littering, illegal dumping and other hazardous and non-hazardous waste issues through community collection events, illicit dumping site cleanups, and coordination of the Annual Keep Lockhart Beautiful Cleanup and Environmental Fair. In 2014, the City of Lockhart was awarded the distinguished Governor's Community Achievement Award in large part to this annual event and the City's active participation in Plum Creek WPP efforts.

The PCWC and GBRA will further support community outreach and education efforts in the WPP implementation process by continuing to make improvements to the website (developed in 2020) and social media platforms for the Plum Creek Watershed Partnership. The PCWP serves as a sterling representative for watershed protection across the

state and must continue to innovate. The website and WPP implementation activities will be complemented by a growing and dynamic social media presence. With an enhanced presence in the community and increasing industrial, citizen and stakeholder involvement, the water quality goals established in the Plum Creek WPP can be realized. The local PCWC has made many strides in these areas, however, continued funding is needed to ensure that project goals are achieved.

| Tasks, Objectives and Schedules | | | | | | |
|--|---|----------|-------------|-----------------|----------|----------|
| Task 1 | Project Administration | | | | | |
| Costs | Federal | \$39,432 | Non-Federal | \$26,288 | Total | \$65,720 |
| 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 | The Plum Creek Watershed Coordinator (PCWC) 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 36 | |
| Subtask 1.2 | GBRA 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 36 | |
| Subtask 1.3 | GBRA 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. GBRA will develop lists of action items needed following each project coordination meeting and distribute to project personnel. | | | | | |
| | Start Date | Month 1 | | Completion Date | Month 36 | |
| Subtask 1.4 | PCWC will develop a Final Report that summarizes activities completed and conclusions reached during the project and discusses the extent to which project goals and measures of success have been achieved. | | | | | |
| | Start Date | Month 1 | | Completion Date | Month 36 | |
| Deliverables | <ul style="list-style-type: none"> • QPRs in electronic format • Reimbursement Forms and necessary documentation in electronic or hard copy format • Lists of action items from project coordination meetings • Final Report in electronic and hard copy formats | | | | | |

| Tasks, Objectives and Schedules | | | | | | |
|---------------------------------|---|----------|-------------|-----------------|----------|----------|
| Task 2 | Support and Facilitation of WPP Implementation | | | | | |
| Costs | Federal | \$59,148 | Non-Federal | \$39,432 | Total | \$98,580 |
| Objective | Facilitate continued stakeholder involvement in the PCWP to ensure successful implementation of the Plum Creek WPP and track implementation. | | | | | |
| Subtask 2.1 | GBRA, in coordination with the PCWP, will oversee the PCWC to engage and facilitate the PCWP and entities identified in the Plum Creek WPP. The PCWC will serve as the primary conduit for interaction with landowners, citizens, and entities to facilitate the implementation of the WPP. The PCWC shall participate in Texas Watershed Coordinator Roundtables and the TSSWCB Southeast and South Central Texas Regional Watershed Coordination Steering Committee meetings. The PCWC will attend the Watershed Planning Shortcourse. The PCWC will continue to be stationed in the Plum Creek watershed. | | | | | |
| | Start Date | Month 1 | | Completion Date | Month 36 | |
| Subtask 2.2 | The PCWC will assist governmental and non-governmental organizations in the Plum Creek watershed, in identification and acquisition of resources (financial and technical) to enable WPP implementation. The PCWC will actively seek and pursue funding opportunities and work with partners to develop grant proposals. The PCWC will work with state and federal agencies, as appropriate, to bring technical and financial resources to the watershed. | | | | | |
| | Start Date | Month 1 | | Completion Date | Month 36 | |
| Subtask 2.3 | The PCWC will 1) evaluate and track progress toward achieving milestones established in the WPP; 2) assess water quality data collected through the Clean Rivers Program and other data collection efforts in relation to achieving load reductions; and, 3) publish, and distribute to stakeholders a biennial addendum to the Plum Creek WPP that describes modifications/updates to goals and milestones, documents success in achieving goals and milestones, and success in achieving water quality improvement and load reductions. The WC will work with TSSWCB and TCEQ to periodically provide information to EPA to support the <i>Rationale for Reclassifying Plum Creek (Segment 1810) from Category 5 to Category 4b on the 2010 Texas Integrated Report</i> and as modified in subsequent Integrated Reports. | | | | | |
| | Start Date | Month 1 | | Completion Date | Month 36 | |
| Subtask 2.4 | GBRA and PCWC will facilitate public participation and stakeholder involvement in the watershed planning process, specifically by hosting meetings of the PCWP Steering Committee (quarterly) and Work Groups (as needed) to provide regular updates on progress to implement the WPP and seek input and recommendations on needed activities. The PCWC will coordinate meetings, secure meeting locations, prepare and disseminate meeting notices and agendas. Meeting summaries will be prepared and posted to the project website. | | | | | |
| | Start Date | Month 1 | | Completion Date | Month 36 | |
| Subtask 2.5 | GBRA and PCWC will maintain a database of watershed stakeholders and affected parties for use in engaging the public in the watershed planning process. | | | | | |
| | Start Date | Month 1 | | Completion Date | Month 36 | |
| Subtask 2.6 | GBRA and PCWC will attend and participate in other public meetings as appropriate in order to communicate project goals, activities and accomplishments to affected parties. Such meetings may include, but are not limited to, city councils, county commissioners' courts, Clean Rivers Program Basin Steering Committee and Coordinated Monitoring, local soil and water conservation districts (SWCDs), groundwater conservation districts and other appropriate meetings of critical watershed stakeholder groups. | | | | | |
| | Start Date | Month 1 | | Completion Date | Month 36 | |
| Deliverables | <ul style="list-style-type: none"> • Notices, agendas, meeting materials, attendance lists, and summaries from PCWP meetings • Documentation of resource opportunities identified, applied for and resources obtained to support plan implementation • Biennial Addendum to WPP • Stakeholder contact list, updated as needed | | | | | |

| Tasks, Objectives and Schedules | | | | | | |
|---------------------------------|---|----------|-------------|-----------------|----------|-----------|
| Task 3 | Outreach, Education, and Community Support | | | | | |
| Costs | Federal | \$98,581 | Non-Federal | \$65,720 | Total | \$164,301 |
| Objective | To promote involvement, provide information transfer, and encourage participation in the Plum Creek Watershed Partnership. | | | | | |
| Subtask 3.1 | <p>The PCWC will coordinate and conduct water resources and related environmental outreach/education efforts across the watershed, as identified in the Plum Creek WPP. The PCWC will work with collaborating entities to organize the following training programs:</p> <ul style="list-style-type: none"> • Riparian education workshops – 1 event • OSSF maintenance workshop “Intro to Septic Systems” 1-2 hour course – 3 events • Homeowner Maintenance of Aerobic Treatment Units 6 hour course – made available online annually <p>The PCWC will look into the feasibility of conducting the following water resources and related environmental outreach/education events: Local community cleanups, Texas Watershed Steward Program, Sports and Athletic Field Education, rainwater harvesting workshops, Texas Well Owner Network trainings, Healthy Lawns and Healthy Waters trainings, well screening events, Texas Stream Team volunteer monitoring trainings and support, and Lone Star Healthy Stream (grazing cattle component). The PCWC will work with the entities that administer/fund these programs and try to direct delivery of these programs to Plum Creek depending on priorities of those entities and programs.</p> <p>The PCWC will make presentations on the PCWP, WPP, and general nonpoint source pollution information to local schools and community organizations.</p> <p>The PCWC will look into the feasibility of working with stakeholders to provide education and implementation of BMPs in the watershed to reduce NPS pollution.</p> <p>The PCWC will work with Extension (County Agents) to coordinate annual soil testing campaigns targeting fertilizer users (agricultural and/or urban) in Hays and Caldwell Counties.</p> <p>GBRA and PCWC will support, promote, and participate in, as appropriate, any field days, demonstrations, site tours, or education events sponsored by Extension, NRCS, and/or SWCDs for the Plum Creek watershed.</p> | | | | | |
| | Start Date | | Month 1 | Completion Date | Month 36 | |
| Subtask 3.2 | <p>GBRA and PCWC will facilitate communication with stakeholders in order to engage the public and affected entities in the watershed planning process. GBRA and PCWC will utilize all appropriate communication mechanisms including direct mail, e-mail, the project website, and mass media (print, radio, television, social media). GBRA and PCWC will develop and disseminate general project informational materials, including, but not limited to, flyers, brochures, letters, fact sheets, news releases, and other appropriate promotional publications. GBRA will include information about the project in GBRA newsletters (e.g., <i>River Run</i>) and Clean Rivers Program publications. GBRA and PCWC may develop and utilize a listserv (e.g., http://listserv.tamu.edu/) to facilitate direct discussion between stakeholders. GBRA and PCWC will make appropriate use of social media (i.e., Facebook, Twitter) as a stakeholder communication mechanism for this watershed. The PCWC will develop, publish, and distribute newsletters (i.e., <i>Plum Creek Current</i>) that highlight Plum Creek watershed activities; the newsletter shall be distributed as most appropriate to individual landowners and entities in the watershed. GBRA and PCWC will solicit content matter for educational materials from Project Partners as appropriate. TSSWCB must approve all project-related content in any informational materials and promotional publications prior to distribution.</p> | | | | | |
| | Start Date | | Month 1 | Completion Date | Month 36 | |

| | | | | |
|--------------|---|---------|-----------------|----------|
| Subtask 3.3 | GBRA and PCWC will work with the City of Lockhart to coordinate the annual Keep Lockhart Beautiful Cleanup and Environmental Fair. GBRA and PCWC will develop projects, organize volunteers, coordinate presentations/activities for the Environmental Fair and generate local sponsors to support the event. Litter cleanup activities will take place in Lockhart parks and other public areas adjacent to Town Branch. GBRA and PWCW will seek out other partners in the watershed to work toward establishing and coordinating clean up events in other areas of the watershed. | | | |
| | Start Date | Month 1 | Completion Date | Month 36 |
| Deliverables | <ul style="list-style-type: none"> • Documentation of workshops including handouts, agendas and attendance rosters • Educational and promotional materials, as developed and disseminated • Maintain project website and social media accounts • Newsletters • Annual Keep Lockhart Beautiful Cleanup and Environmental Fair | | | |

| Project Goals (Expand from Summary Page) |
|---|
| <ul style="list-style-type: none"> • Facilitate and continue implementation of the Plum Creek WPP and foster coordinated assistance activities between the Cities, Counties, GBRA, PCCD, TSSWCB, local SWCDs, NRCS, and members of the PCWP by providing a local presence in the Plum Creek Watershed. • Conduct PCWP Steering Committee meetings and Work Group meetings (if applicable) to provide updates on progress, seek stakeholder input and recommendations on needed activities, and encourage citizen participation. • Support and facilitate the PCWP in identifying management measures to improve water quality, developing proposals to acquire funding for implementation of management measures, managing and tracking implementation projects as well as facilitating education programs in order to encourage adoption of BMPs. • Work with state and federal agencies, as appropriate, to bring technical and financial resources to the Plum Creek watershed. • Track and document implementation efforts to assess progress toward achieving milestones established in the WPP. • Coordinate and conduct water resources and related environmental outreach/education efforts across the watershed, by developing publications, website content to promote and communicate watershed efforts, organizing training programs, working with stakeholders to implement BMPs, and participation/coordination of local community clean up events. |

| Measures of Success (Expand from Summary Page) |
|--|
| <ul style="list-style-type: none"> • Provide technical assistance to the PCWP through identification and acquisition of resources, seek and pursue funding opportunities, and develop grant proposals. • Evaluate progress toward achieving milestones in the WPP and publish an addendum to the Plum Creek WPP that describes modifications/updates to goals and milestones, documents success in achieving goals and milestones and success in achieving water quality improvement and load reductions. • Reduction in potential bacterial contamination and nutrient loading for streams from agricultural and urban nonpoint source pollution. • Increased knowledge of citizens, landowners and agricultural producers of management measures identified in WPP through outreach and educational efforts including training programs. |
| <p>These efforts will ultimately lead to greater stakeholder engagement, increased local investment and more BMPs on the ground.</p> |

| 2017 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. |
| LTG 1 - Focus nonpoint source abatement efforts, implementation strategies, and available resources in watersheds and aquifers identified as impacted by nonpoint source pollution. |
| LTG 2 - Support the implementation of state, regional, and local programs to prevent NPS pollution through assessment, implementation, and education. |
| LTG 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. |
| LTG 6 - Develop partnerships, relationships, memoranda of agreement, and other instruments to facilitate collective, cooperative approaches to manage NPS pollution. |
| LTG 7 - Increase overall public awareness of NPS issues and prevention activities. |
| LTG 8 - Enhance public participation and outreach by providing forums for citizens and industry to contribute their ideas and concerns about the water quality management process. |
| STG 2D - 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. |
| STG 3A - Enhance existing outreach programs at the state, regional, and local levels to maximize the effectiveness of nonpoint source education |
| STG 3B - Administer programs to educate citizens about water quality and their potential role in causing NPS pollution. |
| STG 3D - Conduct outreach through the CRP, Texas A&M 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. |
| STG 3G - Implement public outreach and education to maintain and restore water quality in water bodies impacted by NPS pollution. |
| Component Two - Working partnerships and linkages to appropriate State, interstate, Tribal, regional, and local entities, private sector groups, and Federal agencies. |
| Component Three - Combination of statewide nonpoint source programs and on-the-ground projects achieve water quality benefits; efforts are well-integrated with other relevant state and federal programs. |
| Component Four - Description of how resources will be allocated between abating known water quality impairments from nonpoint source pollution and protecting threatened and high quality waters from significant threats caused by present and future nonpoint source activities. |
| Component Six - Implement all NPS program components required by CWA §319(b) and establish flexible, targeted, and iterative approaches to achieve and maintain beneficial uses of water as expeditiously as practicable, including: <ul style="list-style-type: none"> • a mix of water quality-based and/or technology-based programs designed to achieve and maintain beneficial uses of water; and • a mix of regulatory, non-regulatory, financial, and technical assistance as needed to achieve and maintain beneficial uses of water as expeditiously as practicable. |
| Component Eight - Manage and implement the NPS program efficiently and effectively, including necessary financial management. |

| EPA State Categorical Program Grants – Workplan Essential Elements |
|---|
| FY 2022-2026 EPA Strategic Plan Reference |
| Strategic Plan Goal – 5.0 Ensure Clean and Safe Water for All Communities |
| Strategic Plan Objective – 5.2 - Protect and Restore Waterbodies and Watersheds |
| This workplan supports Goal 5 (Ensure Clean and Safe Water for All Communities) and Objective 5.2 (Protect and Restore Waterbodies and Watersheds) by funding the <i>Texas State and Soil Water Conservation Board's</i> NPS Program for state and local planning, education, assessments, watershed restoration and protection, best management practices, and related water quality activities. |

Part III – Financial Information

| Budget Summary | | | | |
|-----------------------|----|---------|--------------------|------------|
| Federal | \$ | 197,161 | % of total project | 60% |
| Non-Federal | \$ | 131,440 | % of total project | 40% |
| Total | \$ | 328,601 | Total | 100% |
| Category | | Federal | Non-Federal | Total |
| Personnel | \$ | 130,000 | \$ 88,513 | \$ 218,513 |
| Fringe Benefits | \$ | 0 | \$ 748 | \$ 748 |
| Travel | \$ | 10,000 | \$ 506 | \$ 10,506 |
| Equipment | \$ | 0 | \$ 0 | \$ 0 |
| Supplies | \$ | 4,600 | \$ 500 | \$ 5,100 |
| Contractual | \$ | 0 | \$ 0 | \$ 0 |
| Construction | \$ | 0 | \$ 0 | \$ 0 |
| Other | \$ | 23,961 | \$ 40,767 | \$ 64,728 |
| Total Direct Costs | \$ | 168,561 | \$ 131,034 | \$ 299,595 |
| Indirect Costs | \$ | 28,600 | \$ 406 | \$ 29,006 |
| Total Project Costs | \$ | 197,161 | \$ 131,440 | \$ 328,601 |

| Budget Justification (Federal) | | |
|---------------------------------------|--------------|---|
| Category | Total Amount | Justification |
| Personnel | \$ 130,000 | Salary for Watershed Coordinator for 3 years @ 0.60 FTE = \$130,000 |
| Fringe Benefits | \$ 0 | N/A |
| Travel | \$ 10,000 | Mileage at state rate. Travel in watershed on a daily basis; periodic overnight stays @ state rate room/night and state rate day per diem |
| Equipment | \$ 0 | N/A |
| Supplies | \$ 4,600 | Computer Software/Licenses including Constant Contact (\$1,600), Google Suite (\$400), Cloud Storage (\$300), Publishing Software (\$300); Paper, Toner, General office supplies for watershed coordinator for three years (\$1,500); Camera and supplies (\$500) |
| Contractual* | \$ 0 | N/A |
| Construction | \$ 0 | N/A |
| Other | \$ 23,961 | Website maintenance (\$1,800); postage (\$100); publication costs (\$2,000); newspaper article space in local newspapers or social media advertising (\$1,000); reagents and expendable supplies for Texas Stream Team Monitors (\$4,000); costs of training workshops including one in-field riparian workshops, one conventional OSSF workshop for homeowners, three aerobic system operation and maintenance workshops for homeowners (\$1,000); watershed educational activities (\$2,401); professional development including Watershed Planning Short Course, Soil Health Conference, LID workshops, KTB Conferences, booth space at TSSWCB Annual Meeting of SWCD Directors, etc. (\$4,160); Liability and Worker's Compensation Insurance for Watershed Coordinator at \$2,500 per year for three years = \$7,500 |
| Indirect | \$ 28,600 | 22% of personnel category |

| Budget Justification (Non-Federal) | | |
|---|--------------|---|
| Category | Total Amount | Justification |
| Personnel | \$ 88,513 | Salary for watershed coordinator for 3 years @ 0.40 FTE = \$86,667 GBRA Water Quality Program Supervisor: .01 FTE per year – \$615 (3 years – \$1,846) |
| Fringe Benefits | \$ 748 | Fringe for GBRA Water Quality Program Supervisor @ 40.5% |
| Travel | \$ 506 | Mileage at state rate. Travel in watershed on a daily basis; periodic overnight stays @ state rate room/night and state rate day per diem |
| Equipment | \$ 0 | N/A |
| Supplies | \$ 500 | General office supplies (\$500) |
| Contractual* | \$ 0 | N/A |
| Construction | \$ 0 | N/A |
| Other | \$ 40,767 | Office rental (\$11,700), internet service (\$4,580), vehicle (\$18,812), cellular service (\$1,000); Publication costs (\$575); Professional Development (\$500); and volunteer time for cleanup including 50 volunteers per year for 2 hours each @ \$1,200 per year X 3 years (\$3,600). |
| Indirect | \$ 406 | Indirect for GBRA Water Quality Program Supervisor at 22% |