



**Texas State Soil and Water Conservation Board
 Clean Water Act §319(h) Nonpoint Source Grant Program
 FY 2015 Workplan 15-11**

SUMMARY PAGE			
Title of Project	Coordinating Implementation of the Upper Llano Watershed Protection Plan		
Project Goals	<ul style="list-style-type: none"> To foster coordinated assistance activities for the Upper Llano River Watershed Protection Plan (WPP) stakeholders 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 Upper Llano River WPP stakeholders 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; (4) Volunteer monitoring		
Measures of Success	<ul style="list-style-type: none"> Provide assistance to Upper Llano River WPP Stakeholders Evaluate progress toward achieving milestones 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 		
Project Type	Implementation (); Education (); Planning (); Assessment (); Groundwater ()		
Status of Waterbody on 2012 Texas Integrated Report	<u>Segment ID</u>	<u>Parameter of Impairment or Concern</u>	<u>Category</u>
	1415_05 North Llano River	N/A	1
	1415_06 South Llano River	N/A	1
Project Location	Upper Llano River watershed in Edwards, Kerr, Kimble, Menard, Real, and Sutton Counties		
Key Project Activities	Hire Staff (X); Surface Water Quality Monitoring (X); Technical Assistance (); Education (X); Implementation (X); BMP Effectiveness Monitoring (); Demonstration (); Planning (); Modeling (); Bacterial Source Tracking (); Other ()		
2012 Texas NPS Management Program Reference	<ul style="list-style-type: none"> Component One –LTGs 2, 3, 5, 6 Component One – STGs 2D, 3B, 3D, 3F Component Two 		
Project Costs	Federal	\$204,115	Non-Federal \$143,378 Total \$347,493
Project Management	<ul style="list-style-type: none"> Llano River Field Station, Texas Tech University Texas Water Resources Institute, Texas A&M AgriLife Research 		
Project Period	December 1, 2015 – September 30, 2018		

Part I – Applicant Information

Applicant							
Project Lead		Tom Arsuffi, PhD					
Title		Director					
Organization		Llano River Field Station, Texas Tech University					
E-mail Address		tom.arsuffi@ttu.edu					
Street Address		PO Box 186, 254 Red Raider Lane					
City	Junction	County	Kimble	State	TX	Zip Code	76849
Telephone Number		325.446.2301			Fax Number		325.446.4011

Co-Applicant							
Project Lead		Troy Allen Berthold, PhD					
Title		Research Scientist					
Organization		Texas Water Resources Institute, Texas A&M AgriLife Research					
E-mail Address		taberthold@ag.tamu.edu					
Street Address		578 John Kimbrough Blvd, 2260 TAMU					
City	College Station	County	Brazos	State	TX	Zip Code	77843
Telephone Number		979.845.2028			Fax Number		979.845.8554

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.
Llano River Field Station, Texas Tech University (TTU-LRFS)	Provide project management and oversight; serve as watershed coordinator, project reporting, provide assistance for stakeholder relations; provide coordination of ongoing implementation efforts; assess water quality data collected through the Clean Rivers Program in relation to achieving load reductions; maintain project website.
Texas Water Resources Institute, Texas A&M AgriLife Research (TWRI)	Support and advise TTU-LRFS in execution of WPP implementation; assist with coordination of educational programs with AgriLife; assist with grant writing.
South Llano Watershed Alliance (SLWA)	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 <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.		Upper Llano River Watershed Protection Plan					
If yes, identify the agency/group that developed and/or approved the document.		Texas Water Resources Institute and Texas Tech, Llano River Field Station		Year Developed		2016	

Watershed Information				
Watershed or Aquifer Name(s)	Hydrologic Unit Code (12 Digit)	Segment ID	Category on 2012 IR	Size (Acres)
North Llano River	12090202	1415_05	1	605,622
South Llano River	12090203	1415_06	1	604,228

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>2012 Texas Integrated Report</i> , Clean Rivers Program Basin Summary/Highlights Reports, or other documented sources.
<p>The Llano River is a large tributary of the Colorado River, flowing into Lake LBJ. In fact, this clear spring-fed perennial river dilutes dissolved solids and suspended sediment in the Colorado (2010 LCRA Basin Highlights Report), thus improving the water quality in Lake LBJ and other Highland Lakes. The Lake LBJ watershed, and other Highland Lakes for that matter, has experienced growth in recent years. Pressure from this growing population will require rigorous stewardship of the resource to ensure its sustainability (2009 LCRA Basin Highlights Report).</p> <p>The beneficial uses of the Llano River include general use, aquatic life use, and contact recreation use. According to the 2009 LCRA Basin Highlights Report, routine biological assessments in the South Llano show that fish, insect, and 24-hour DO are rated Exceptional and habitat is rated as High. Similar conditions were observed on the main stem of the Llano further downstream at Mason. The contact recreation use was rated as impaired on the Llano River on the 1996 303 (d) List. However, it was subsequently delisted and has remained unimpaired since then. In fact, the 2012 Texas Water Quality Inventory continues to show that the Llano River is fully supporting its uses and no concerns have been identified. According to the May 3, 2010 Llano River Data Report prepared by Texas State University, River Systems Institute and Texas Stream Team, data collected by volunteer water quality monitors between 1996 and 2010 showed 4 exceedences of the temperature standard (of 496 measurements), 1 exceedence of the pH standard (of 487 measurements), no dissolved oxygen standard exceedences (of 491 measurements), 1 exceedence of the conductivity standard (of 429 measurements), 96% of 302 total nitrogen measurements were less than 1 mg/L, and for 222 observations of <i>E. coli</i> levels made since 1996, the geometric mean was 40.2 cfu/100 mL and only 8 exceeded the single sample maximum. However, during water quality assessments for the Upper Llano Watershed Protection Plan, elevated levels have been periodically observed at 2 sites on the North Llano River, particularly during low flow conditions, as well as 1 spring and 1 tributary site. There is a high correlation between low flow and high bacteria. The North Llano River not only has higher wildlife populations, but also very low flow (high concentration of animals at a small water source). Further, a June, 2013 Texas Well Owners Network workshop attended by 40 landowners demonstrated the need for additional watershed education in that 40% of wells exhibited levels of total coliform (general undifferentiated bacteria) and 10% of those were positive for <i>E. coli</i>.</p>

Project Narrative

Problem/Need Statement

The Upper Llano is currently a healthy ecosystem supporting a variety of aquatic and terrestrial ecosystems, as well as numerous recreational opportunities. However, a number of threats to this critical resource do exist. According to “Land of the Living Waters: A Characterization of the South Llano River, Its Springs, and Its Watershed” prepared by the Environmental Defense Fund, the primary threat to the South Llano River is loss of spring flow. Subtle changes due to land fragmentation, loss of riparian habitat, and encroachment of juniper species on upland habitats also have the potential to decrease the water quality and quantity of the river. Additionally, there is potential for increased biological pollution and reduction in flows should what are now isolated pockets of invasive plants [giant reed (*Arundo donax*) and elephant ears (*Colocasia esculenta*)] continue to spread.

In 2013, the Upper Llano Watershed Coordination Committee (WCC) was established to provide local input into the Upper Llano Watershed Protection Plan (WPP) development. As part of TSSWCB project 11-04, Development of the Upper Llano River Watershed Protection Plan, land use / land cover data was updated, watershed modeling was conducted, and a WPP drafted to preserve the river and its flows. The development of the WPP was a stakeholder driven process facilitated by TTU-LRFS and TWRI. The WCC includes local business owners, landowners, and municipal and county representatives. With technical assistance from TTU-LRFS, TWRI and other state and federal partners, the WCC identified water quality issues that are of particular importance to the surrounding communities. The WCC also contributed information on land uses and activities that were utilized in identifying potential sources of concern and in guiding the development of the WPP. 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 estimated load reductions and load preventions expected from full implementation of all management measures.

The WCC recommended establishing a permanent watershed coordinator in the WPP to facilitate implementation of the Upper Llano River WPP. 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 LRWP, maintain the website, and coordinate outreach and education efforts in the watershed.”

The Upper Llano River WPP will be completed in early 2015 and is expected to be approved by August 2015. It is anticipated that WPP implementation funding through CWA §319(h) nonpoint source grants for on-the-ground best management practices will not be requested until the FY2016 funding cycle, creating a lapse in facilitation of the WPP.

Because of this lapse, this project is necessary to provide for interim facilitation during the approval of the WPP and then coordination of the initiation of WPP implementation. It is imperative that stakeholder engagement continues and that the level of awareness of the WPP among the community to bridge the gap between projects that developed the Upper Llano River WPP and beginning WPP implementation efforts.

The goal of this project is to continue to raise awareness and engage the local watershed communities about the WPP and actions that can be taken to maintain and improve water quality in the Upper Llano watershed.

Project Narrative

General Project Description (Include Project Location Map)

Through a local presence in Upper Llano watershed (see map below), the watershed coordinator will serve as the primary conduit for interaction with landowners, citizens, and entities to facilitate the implementation of the WPP. The watershed coordinator will coordinate meetings with the Upper Llano WCC and stakeholders, to update them, seek their input and recommendations on needed activities, and continue to support and facilitate implementation efforts of the plan. The watershed coordinator will assist the communities, counties, local boards and businesses to acquire resources to enable WPP implementation. The watershed coordinator 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 watershed coordinator will evaluate progress toward achieving milestones established in the WPP and assess water quality data in relation to achieving load reductions.

Coordination of outreach and education efforts by the watershed coordinator will facilitate and support public participation by private individuals and local officials in the implementation of the Upper Llano River WPP. The watershed coordinator will develop publications; such as a semi-annual newsletter, factsheets, website content; to promote and communicate watershed pollution prevention efforts. Additionally, the watershed coordinator will coordinate and conduct educational outreach efforts across the watershed by organizing training programs such as Lone Star Healthy Streams (feral hog, grazing cattle, and horse components) and Texas Watershed Stewards workshop.

Tasks, Objectives and Schedules						
Task 1	Project Administration					
Costs	Federal	\$27,000	Non-Federal	\$18,000	Total	\$45,000
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	TTU-LRFS 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 15 th of January, April, July and October. QPRs shall be distributed to all Project Partners.					
	Start Date	Month 1		Completion Date	34	
Subtask 1.2	TTU-LRFS 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 34	
Subtask 1.3	TTU-LRFS 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. TTU-LRFS will develop lists of action items needed following each project coordination meeting and distribute to project personnel.					
	Start Date	Month 1		Completion Date	Month 34	
Subtask 1.4	TTU-LRFS will develop a Final Report that summarizes activities completed, 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 34	
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	Support and Facilitation of WPP Implementation					
Costs	Federal	\$141,115	Non-Federal	\$101,378	Total	\$242,493
Objective	Facilitate continued stakeholder involvement in the Upper Llano River Watershed to ensure successful implementation of the Upper Llano River WPP and track implementation.					
Subtask 2.1	TTU-LRFS will continue to employ a Upper Llano River Watershed Coordinator (WC) to engage and facilitate the Upper Llano River WCC, watershed stakeholders, and entities identified in the Upper Llano River WPP. The WC will serve as the primary conduit for interaction with landowners, citizens, and entities to facilitate the implementation of the WPP. The WC shall successfully complete (or have already completed) the Texas Watershed Planning Short Course. The WC shall participate in all Texas Watershed Coordinator Roundtables held during the project period. The WC shall be stationed in the Upper Llano River watershed.					
	Start Date	Month 1		Completion Date	Month 34	
Subtask 2.2	The WC will assist governmental and non-governmental organizations in the Upper Llano River watershed, in identification and acquisition of resources (financial and technical) to enable WPP implementation. The WC, with assistance from TWRI, will actively seek and pursue funding opportunities and work with partners to develop grant proposals. The WC 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 34	

Subtask 2.3	The WC, with assistance from TWRI, will 1) evaluate and track progress toward achieving milestones established in the Upper Llano River WPP; and 2) work with LCRA to assess water quality data collected through the Clean Rivers Program and other data collection efforts in relation to achieving load reductions.	Start Date	Month 1	Completion Date	Month 34
Subtask 2.4	The WC will facilitate public participation and stakeholder involvement in the watershed planning process, specifically by hosting meetings of the Upper Llano River WCC to provide regular updates on progress to implement the WPP and seek input and recommendations on needed activities. TWRI will assist with agenda development and facilitation as needed. The WC 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 34
Subtask 2.5	The WC will maintain a database of watershed stakeholders and affected parties for use in engaging the public in the watershed planning process. The stakeholder group will be updated from previous efforts of TTU-LRFS and TWRI in TSSWCB project 11-04, Development of the Upper Llano River Watershed Protection Plan. The spreadsheet will represent a diverse cross section of Upper Llano River landowners, citizens, local businesses, local and regional governmental entities and elected officials, state and federal agencies, and environmental and special interest groups.	Start Date	Month 1	Completion Date	Month 34
Subtask 2.6	The WC 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 34
Subtask 2.7	The WC will provide information to LCRA for inclusion in the Clean Rivers Program Basin Summary Report and Basin Highlights Report regarding progress to implement the Upper Llano River WPP.	Start Date	Month 1	Completion Date	Month 34
Subtask 2.8	The WC will develop, publish, and distribute 2 semi-annual newsletters that are designed to keep landowners and entities informed of ongoing WPP implementation activities, including water quality data collection and progress toward achieving milestones in the WPP. The newsletter shall be distributed as most appropriate to individual landowners and entities in the watershed. The WC will solicit content matter for the newsletters from Project Partners as appropriate. TSSWCB must approve all project-related content in any informational materials and promotional publications prior to distribution.	Start Date	Month 1	Completion Date	Month 34
Subtask 2.9	The WC will facilitate communication with stakeholders in order to engage the public and affected entities in WPP implementation. The WC will utilize all appropriate communication mechanisms including direct mail, e-mail, the project website, and mass media (print, radio, television). The WC, with assistance of TWRI, will develop and disseminate general project informational materials, including, but not limited to, flyers, brochures, letters, factsheets, news releases, and other appropriate promotional publications. The WC, with assistance of the SLWA, will utilize a website, listserv, and social media to facilitate direct discussion between stakeholders. The WC 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.	Start Date	Month 1	Completion Date	Month 34

Deliverables	<ul style="list-style-type: none"> • Notices, agendas, meeting materials, attendance lists, and summaries from quarterly Upper Llano River WCC meetings • Stakeholder database, updated as needed • List of other meetings attended and dates with brief summary of topics discussed and action needed included in QPRs • Information provided to Clean Rivers Program for publication materials • 2 Semi-annual newsletters developed and distributed to stakeholders • Project informational materials including 1 brochures, letters, 4 factsheets, 2 news releases, and other promotional publications, as developed and disseminated
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Tasks, Objectives and Schedules						
Task 3	Outreach, Education and Community Support					
Costs	Federal	\$36,000	Non-Federal	\$24,000	Total	\$60,000
Objective	To promote involvement, provide information transfer and encourage participation in the Upper Llano River WCC and WPP implementation efforts					
Subtask 3.1	<p>The WC, with assistance from TWRI, will coordinate and conduct water resources and related environmental outreach/education efforts across the watershed, as identified in the Upper Llano River WPP. The WC will work with collaborating entities to organize the following training programs:</p> <ul style="list-style-type: none"> • Lone Star Healthy Streams (Feral Hog component) workshop – 1 events • Lone Star Healthy Streams (Grazing Cattle component) workshop – 1 events • Rainwater harvesting workshop – 1 event • Texas Well Owner Network training and well screening event – 1 event • In partnership with the Llano River Watershed Alliance workshops – 2 Watershed topic events • LRFS Outdoor School k-12 STEM Watershed Curriculum – 20 Separate Independent School District events • LRFS Outdoor School k-12 STEM Teacher Professional Development (Water, Natural Resource and Environmental Literacy) – 2 workshops <p>The WC will work with the entities that administer/fund these programs and try to direct delivery of these programs to the Upper Llano River watershed depending on priorities of those entities and programs.</p>					
	Start Date	Month 1	Completion Date	Month 34		
Subtask 3.2	The WC will coordinate education and outreach activities as identified in the Upper Llano River WPP. The WC will make presentations on the Upper Llano River WPP and general NPS pollution information to local schools and community organizations. The WC will support, promote, and participate in, as appropriate, any field days, demonstrations, site tours, or education events sponsored by AgriLife Extension, USDA-NRCS, and/or SWCDs for the Upper Llano River Watershed.					
	Start Date	Month 1	Completion Date	Month 34		
Deliverables	<ul style="list-style-type: none"> • Notices, agendas, meeting materials, attendance lists, and summaries from 6 workshops, field tours, demonstrations, site tours, 20 educational events offered and 4 educational events attended. • Presentations given to local schools (4), community organizations (2), agencies (2) or professional organizations (4). 					

Tasks, Objectives and Schedules						
Task 4	Volunteer Monitoring					
Costs	Federal	\$0	Non-Federal	\$0	Total	\$0
Objective	To monitor water quality benefits of WPP implementation efforts					
Subtask 4.1	Volunteer Coordination and Training – Upon receipt of funding notification, TTU-LRFS will facilitate the organization and training of local watershed volunteers through the Texas Stream Team’s training programs A training event will be hosted locally and TTU-LRFS personnel as appropriate will become trainers as well so that any new interested parties can be trained as needed.					
	Start Date	Month 6	Completion Date	Month 34		
Subtask 4.2	Volunteer Monitoring – Sampling will be conducted by volunteer monitors at multiple locations across the watershed in parallel with the routine monitoring. Parameters monitored will include water temperature, pH, DO, total dissolved solids, conductivity, salinity, water clarity, and <i>E. coli</i> enumeration. Volunteer data will be reported to the Texas Stream Team. Field observations will also be recorded and include flow level, algae cover, water color, water clarity, water surface, water conditions, water odor, present weather, days since last significant precipitation, rainfall accumulation, and stream velocity. Data collection and sample analysis will be conducted as described in the <i>Texas Stream Team Water Quality Monitoring Manual and QAPP</i> .					
	Start Date	Month 6	Completion Date	Month 34		
Subtask 4.3	Data Management – Volunteer monitors will utilize Texas Stream Team practices and procedures for recording, validating and submitting data into the Texas Stream Team database. Additionally, these data will be incorporated into the watershed specific database developed by and housed at TTU-LRFS as well as the Stream Team’s database and dataviewer. Volunteer monitoring data will not be sent to TCEQ for future water body assessment purposes, but will instead be utilized by the watershed coordinator for directing future BMP assessments and performance evaluations.					
	Start Date	Month 6	Completion Date	Month 34		
Subtask 4.4	Water Quality Data Assessment – TTU-LRFS and TWRI will conduct a water quality data assessment to reveal trends in water quality over the course of the project, track impacts of implementation, and aid in further identification of areas of concern in the watershed.					
	Start Date	Month 6	Completion Date	Month 34		
Deliverables	<ul style="list-style-type: none"> • Volunteer monitors organized and trained • Data submitted to the Texas Stream Team and TWRI for data management • Volunteer water quality monitoring data trend analyses and graphics 					

Project Goals (Expand from Summary Page)

- Facilitate and continue implementation of the Upper Llano River WPP and foster coordinated assistance activities between the Cities, Counties, TSSWCB, local SWCDs, NRCS, and members of the Upper Llano River WCC by providing a local presence in the Upper Llano River Watershed.
- Conduct Upper Llano River WCC meetings to provide updates on progress, seek stakeholder input and recommendations on needed activities, and encourage citizen participation.
- Support and facilitate the Upper Llano River WCC in 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 Upper Llano River 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, and by participation in local community clean up events.

Measures of Success (Expand from Summary Page)

- Provide technical assistance to the Upper Llano River WCC and stakeholders through identification and acquisition of resources, seek and pursue funding opportunities, and develop grant proposals
- Evaluate progress toward achieving milestones in the WPP
- Increased knowledge of citizens, landowners and agricultural producers of management measures identified in WPP through outreach and educational efforts including training programs
- Reduction in potential bacterial contamination and nutrient loading for streams from agricultural and urban nonpoint source pollution

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 groundwater.
Long-Term Goal Two – Support the implementation of state, regional, and local programs to prevent NPS pollution through assessment, implementation and education.
Long-Term Goal Three – Support the implementation of state, regional, and local programs to reduce NPS pollution, such as the implementation of strategies defined in... WPPs.
Long-Term Goal Five – Develop partnerships, relationships... to facilitate collective, cooperative approaches to manage NPS pollution.
Long-Term Goal Six – Increase overall public awareness of NPS issues and prevention activities.
Short-Term Goal Two – Implementation – Objective D – Implement... WPPs developed to restore and maintain water quality in waterbodies identified as impacted by NPS pollution.
Short-Term Goal Three – Education – Objective B – Administer programs to educate citizens about water quality and their potential role in causing NPS pollution.
Short-Term Goal Three – Education – Objective D – Conduct outreach...to facilitate broader participation and partnerships. 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.
Short-Term Goal Three – Education – Objective F – Implement public outreach and education to maintain and restore water quality in waterbodies by NPS pollution.
Component Two – Working partnerships and linkages to appropriate state, interstate, tribal, regional, and local entities, private sector groups, and Federal agencies.

Estimated Load Reductions Expected (Only applicable to Implementation Project Type)
Because the North and South Llano rivers of the Upper Llano WPP are unimpaired and considered healthy streams, the estimated load preventions expected from full implementation of all management measures will be assessed by EDYS modeling developed during the Upper Llano WPP.

EPA State Categorical Program Grants – Workplan Essential Elements
<i>FY 2011-2015 EPA Strategic Plan Reference</i>
Strategic Plan Goal – Goal 2 Protecting America’s Waters
Strategic Plan Objective – Objective 2.2 Protect and Restore Watersheds and Aquatic Ecosystems

Part III – Financial Information

Budget Summary				
Federal	\$	204,115	% of total project	59%
Non-Federal	\$	143,378	% of total project	41%
Total	\$	347,493	Total	100%
Category		Federal	Non-Federal	Total
Personnel	\$	93,505	\$ 33,338	\$ 126,843
Fringe Benefits	\$	34,114	\$ 11,680	\$ 45,794
Travel	\$	4,000	\$ 0	\$ 4,000
Equipment	\$	0	\$ 0	\$ 0
Supplies	\$	1,320	\$ 0	\$ 1,320
Contractual	\$	51,235	\$ 34,158	\$ 85,393
Construction	\$	0	\$ 0	\$ 0
Other	\$	0	\$ 0	\$ 0
Total Direct Costs	\$	184,174	\$ 79,176	\$ 263,350
Indirect Costs	\$	19,941*	\$ 6,753 ¹	\$ 26,694
Unrecovered F&A			\$ 57,449 ²	\$ 57,449
Total Project Costs	\$	204,115	\$ 143,378	\$ 347,493

- * F&A is charged over a base comprised of the Total Direct Costs minus the entire subcontract ($\$184,174 - 51,235 = \$132,939 * 0.15 = 19,941$).
- ¹F&A is charged over the TTU salaries and fringes only on the Non-Federal column.
- ²Unrecovered F&A: Difference between TTU federally allowed F&A over Modified Total Direct Costs (49% over TDC **including only up to** the first \$25,000 of subcontract = \$77,390.11) and the total from the current rate (15 % over TDC minus entire subcontract = \$19,941.) = \$57,449.26

Budget Justification (Federal)		
Category	Total Amount	Justification
Personnel	\$ 93,505	Principal Investigator, \$77,147.31 annually @ 2 months = \$12,858, Watershed Coordinator, \$47,208.00 annually @ 20.5 months = \$80,647 *named positions are budgeted with a 3% annual pay increase in all years; TBD positions and graduate students are budgeted with a 3% pay increase in years after year 1 *(Salary estimates are based on average monthly percent effort for the entire contract. Actual percent effort may vary more or less than estimated between months; but in the aggregate, will not exceed total effort estimates for the entire project.)
Fringe Benefits	\$ 34,114	Employee benefits are directly charged as a percentage of salaries and wages. The rate used for summer salary for faculty is 18% plus \$591 for monthly health insurance on year 1. The rate used for the Watershed Coordinator is 18% plus \$795 per month for insurance on year 1. HI is expected to increase by 10% each year. (Fringe benefits estimates are based on salary estimates listed. Actual fringe benefits will vary between months coinciding with percent effort variations; but in the aggregate, will not exceed the overall estimated total.)
Travel	\$ 4,000	2 trips total: 2 trips at \$1500 each, Mileage on the 2 trips is approx. 1818 miles per trip; per diem on the 3 trips is \$300 per person, hotel costs are budgeted at \$500 per person based on previous similar trips. Additional mileage for \$1000 for in-state travel.
Equipment	\$ 0	NA.
Supplies	\$ 1,320	Workshop materials: flipcharts, remote control, pens and eraser, portable easel, heavy duty easel, self stick easel pads, flyers, handouts and folders.
Contractual*	\$ 51,235	TWRI at \$25,292 in yr 1, \$25,943 in yr 2
Construction	\$ 0	NA
Other	\$ 0	NA
Indirect	\$ 19,941	Based on 15% of total federal direct costs, including Personnel, Fringe Benefits, Travel, Supplies, and Other. No indirect charged over subcontract.

Budget Justification (Non-Federal)		
Category	Total Amount	Justification
Personnel	\$ 33,338	Principal Investigator, \$77,147.31 annually @ 1.05 months = \$6,750, Watershed Coordinator, \$47,208.00 annually @ 6.75 months = \$26,554 *named positions are budgeted with a 3% annual pay increase in all years; TBD positions and graduate students are budgeted with a 3% pay increase in years after year 1 *(Salary estimates are based on average monthly percent effort for the entire contract. Actual percent effort may vary more or less than estimated between months; but in the aggregate, will not exceed total effort estimates for the entire project.)
Fringe Benefits	\$ 11,680	Employee benefits are directly charged as a percentage of salaries and wages. The rate used for summer salary for faculty is 18% plus \$591 for monthly health insurance on year 1. The rate used for the Watershed Coordinator is 18% plus \$795 per month for insurance on year 1. HI is expected to increase by 10% each year. (Fringe benefits estimates are based on salary estimates listed. Actual fringe benefits will vary between months coinciding with percent effort variations; but in the aggregate, will not exceed the overall estimated total.)
Travel	\$ 0	N/A
Equipment	\$ 0	N/A
Supplies	\$ 0	N/A
Contractual*	\$ 34,158	TWRI at \$17,666 in yr 1, \$16,492 in yr 2
Construction	\$ 0	N/A
Other	\$ 0	N/A
Indirect	\$ 6,753	15% of F&A over Personnel and Fringe Benefits. Non-Federal match from the subcontract issued to TWRI is excluded from the base to calculate F&A in this line.
Unrecovered IDC	\$ 57,449	Unrecovered F&A (TTU Negotiated rate is 49% of the MTDC), so 34%

Contractual Budget Justification (Federal) - TWRI		
Category	Total Amount	Justification
Personnel	\$ 29,806	TWRI Research Associate, \$45,300 annually @ 7.89 months = \$29,806 *named positions are budgeted with a 3% annual pay increase in all years; TBD positions and graduate students are budgeted with a 3% pay increase in years after year 1 *(Salary estimates are based on average monthly percent effort for the entire contract. Actual percent effort may vary more or less than estimated between months; but in the aggregate, will not exceed total effort estimates for the entire project.)
Fringe Benefits	\$ 10,383	Fringe is calculated at 18% of salaries plus \$647 per month Cell phone allowance for project calls/emails during & after business hours & travel = \$704 (Fringe benefits estimates are based on salary estimates listed. Actual fringe benefits will vary between months coinciding with percent effort variations; but in the aggregate, will not exceed the overall estimated total.)
Travel	\$ 751	Travel for Extension Personnel for program delivery: <ul style="list-style-type: none"> • Mileage (state rate) and lodging: \$400 TWRI mileage for project meetings: <ul style="list-style-type: none"> • Mileage (\$0.50 per mile state rate) \$351
Equipment	\$ 0	N/A
Supplies	\$ 0	N/A
Contractual*	\$ 0	N/A
Construction	\$ 0	N/A
Other	\$ 3,612	Venue Fees for education events and meetings estimated at \$261 per event and six events = \$1,566 Communications Team Services for education material editing and layout estimated at 41 hours @ \$50 per hour = \$2,046
Indirect	\$ 6,683	15% of Modified Total Direct Costs (\$44,552)

Contractual Budget Justification (Non-Federal) - TWRI		
Category	Total Amount	Justification
Personnel	\$ 10,600	TWRI Director, \$205,400 annually @ 0.46 months = \$7,947 TWRI Associate Director, \$126,875 annually @ 0.25 months = \$2,653 *named positions are budgeted with a 3% annual pay increase in all years; TBD positions and graduate students are budgeted with a 3% pay increase in years after year 1 *(Salary estimates are based on average monthly percent effort for the entire contract. Actual percent effort may vary more or less than estimated between months; but in the aggregate, will not exceed total effort estimates for the entire project.)
Fringe Benefits	\$ 2,352	Fringe is calculated at 18% of salaries plus \$647 per month (Fringe benefits estimates are based on salary estimates listed. Actual fringe benefits will vary between months coinciding with percent effort variations; but in the aggregate, will not exceed the overall estimated total.)
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	\$ 21,206	The Texas A&M AgriLife Research indirect negotiated cost rate is 48.5% Indirect Costs = 48.5% of \$12,952 matching funds = \$6,281 Unrecovered IDC = 33.5% of \$44,552 federal funds = \$14,925