Clean Water Action Section 319(h)
Watershed Group Formation/WRAS Workplan
Las Huertas Creek Watershed Project, New Mexico
FY02-S

Submitted to the New Mexico Environment Department Surface Water Quality Bureau,
Regarding RFP Solicitation FY04-SWQB/NPS-001
September 20, 2004

Watershed Group Formation and Preparation of a Watershed Management Action Strategy for the Las Huertas Creek Watershed, Sandoval County, New Mexico

PROBLEM AND STATEMENT OF NEED

Although there is a broad spectrum of property owners, land uses and stakeholder in the Las Huertas Creek Watershed, there is currently no broad watershed-wide stakeholder participation to foster the protection and restoration of all aspects of a healthy watershed.

Las Huertas Creek is listed on NM CWA 2002-2004 303(d) list for stream bottom deposits. Causes of non-point source (NPS) pollution in this watershed include soil erosion related to degraded or poorly developed ground covering vegetation, poor soil structure, gully and streambank erosion and incising stream channels, all of which result in increased sediment load to Las Huertas Creek and its tributary stream channels. Primary causes of these impacts include past disturbances from overgrazing and logging practices, and current residential and commercial development. Significant factors contributing to increased watershed erosion and stream sedimentation includes a portion of NM 165 located within the floodplain of Las Huertas Creek, other road building associated with development, and loss of protective vegetation due to past large-scale fires in Las Huertas Canyon. Las Huertas canyon in the headwaters reach remains at risk from wildfire, and appropriate watershed management measures to minimize this risk need to be designed and implemented.

GENERAL PROJECT DESCRIPTION

The Las Huertas Creek watershed is located in central New Mexico, mostly in Sandoval County. The headwaters begin in the northerly portion of the Sandia Mountains, flow north to and through the village of Placitas and then head northwest under Interstate 25 and west to meet the Rio Grande near the town of Bernalillo. The watershed is approximately 11,330 acres, and the Creek is about 16 miles in length (Figure 1). Las Huertas Creek is currently classified as a "cold water fishery" by the New Mexico Water Quality Control Commission (NMWQCC). The NMWQCC was presented a petition to upgrade the classification of the stream to "high quality cold water fishery" in January 2004. The NMWQCC is in the process of reviewing the petition as of this date.

Figure 1. Map of Watershed

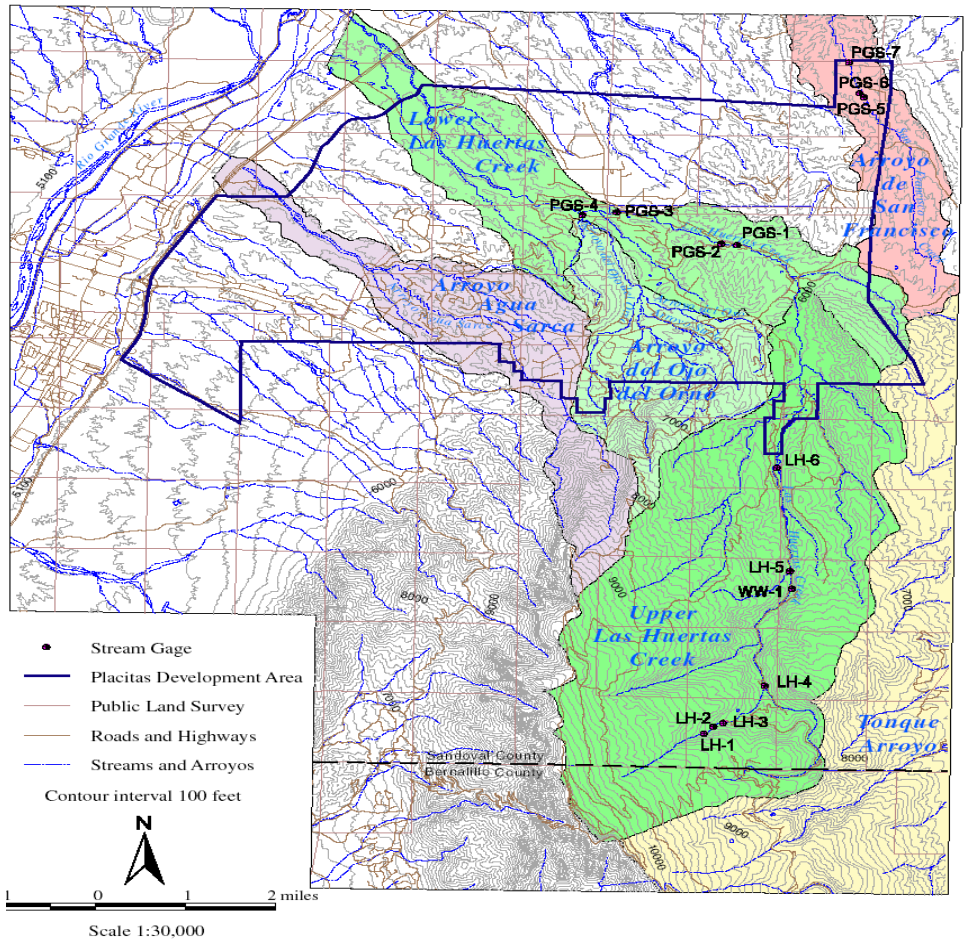

Figure 7. Surface water drainages and stream discharge measurements in the Placitas area.

The Las Huertas Watershed Project (LHWP) began as a group of concerned citizens working as part of the Las Placitas Association (LPA), a Placitas, New Mexico based 501 (c)(3) non-profit corporation dedicated to protecting and preserving the quality of life in the Placitas area. Working as a volunteer effort under LPA, the LHWP has already conducted essential research and public outreach that will serve as a strong basis for completing watershed group formation according to EPA and NMED guidelines.

Under the recently awarded Clean Water Act Section 319(h) grant, the LHWP proposes to complete the watershed group formation process and to complete a draft Watershed Restoration Action Strategy (WRAS) by June 30, 2005. During the period July 1, 2005 through June 30, 2006, the LHWP will finalize the WRAS, maintain public outreach and stakeholder engagement activities, and plan and pursue funding for on-the-ground watershed restoration projects. The objective of the watershed group formation is to establish a collaborative community-based process involving all key interests and affected parties. The process will engage watershed stakeholders and facilitate participation to complete the organization of a local watershed group according to EPA and NMED guidelines.

In the WRAS-preparation phase, the LHWP will initially focus on developing local understanding of the State's water quality management system (including TMDLs and load allocations). The LHWP will then identify contributing sources of targeted pollutants to be controlled under the TMDLs. Next, the LHWP will develop a locally acceptable restoration plan for efficiently achieving the load reductions, identify on-the-ground watershed rehabilitation projects, and identify ways in which individuals and organizations can otherwise contribute to improving water quality and restoring Las Huertas Creek to a condition consistent with its NMWQCC classification.

A brief description of the tasks outlined to fulfill on these project objectives is presented in the following text.

Task 1. Develop Watershed Group

As stated previously, the LHWP, working as a volunteer organization under LPA, has already conducted many of the elements of Watershed Group Formation according to EPA and NMED guidance. The LHWP has already conducted two public watershed tours and six public workshops on selected technical topics to educate participating stakeholders on watershed and riparian ecology and associated impacts, and engage them in active solutions to those impacts. Topics of workshops conducted thus far have included grey water harvesting, drought gardening, and water harvesting (for water conservation); well and septic tank construction and maintenance (for minimizing wastewater impacts to the watershed); Community Acequias (education of traditional agricultural practices in the watershed); and stormwater management (education on drainage and flood control to minimize erosion and sedimentation impacts to the watershed).

The following task/subtask descriptions outline the remaining work to be performed to complete the Watershed Group Formation according to EPA/NMED guidelines.

Task 1.1 Formulate Public Outreach and Education Program

The following subtasks detail an education and outreach structure to engage and maintain public and governmental involvement in the Watershed Project, WRAS design and execution.

Task 1.1.1 Form Volunteer Task Force (VTF)

The LHWP will create and organize a VTF as a formal point of contact for volunteer assistance on various tasks within the project. The VTF will work to ensure a broad based watershed group will be developed to further educate and involve the community. Utilizing existing project contacts and previous stakeholder identification, VTF members will invite participation and input to the project. Group members will identify barriers to participation and utilize the VTF to overcome these barriers. A preliminary target list of possible task force members includes, but is not limited to Neighborhood Associations and sub-division groups, acequia associations, local businesses, local schools, and environmental groups. The VTF may promote the LHWP through door to door and informal kitchen table talks. Other tasks may include volunteer monitoring of the flora and fauna of watershed, organizing creek clean-ups, educational hikes and all activities in regards to the LHWP.

Task 1.1.2 Information Dissemination and Stakeholder Engagement

A combination of effective outreach techniques will be utilized to disseminate information to promote interest in the LHWP and gain additional members. Methods may include, but are not limited to; a public TV ad, local newspaper ads and editorials, video, billboard, brochure, direct mail, utility bill insert, and involving local schools.

LHWP group members and VTF members may develop and implement a survey to gather stakeholder opinions and interests in the future of the watershed.

Continued workshops, retreats and tours (Task 1.1.4) in response to existing stakeholder interest will also serve to distribute information and elicit input from stakeholders on watershed management, restoration and land use issues.

Task 1.1.3 Create a LHWP Section in the Community Library The LHWP will create a library with a collection of any existing documentation including cultural resources, geology, hydrology, land use, precipitation, soils, wildlife and vegetation. Historic "how it used to be" stories and photos will be collected. These materials will be displayed and made available to the public at a dedicated space in the recently established Placitas Community Library. Data and information from past and ongoing local watershed and river restoration efforts will be compiled for the library.

Task 1.1.4 Conduct Workshops, Retreats and Tours The LHWP will continue its practice of conducting educational and participatory workshops in various aspects of watershed evaluation, management, and restoration.

The LHWP will conduct six additional workshops during the period September 2004 through June 2005. Potential topics include but are not limited to:

- Las Huertas Watershed groundwater recharge pathways;

- Wildlife of Las Huertas Watershed;
- Prominent Land Use Issues in the Las Huertas Watershed;
- The role of Las Huertas Watershed in Pueblo history and traditional practices;
- Rapid Assessment practices for private landowners;
- Voluntary monitoring practices for watershed stakeholders.
- Benthic macroinvertebrates, or "Creek Critters - a workshop for kids."
- Conservation Easements - Are They For You?
- You've got erosion problems on your land - What can you do?
- Create healthy, fertile soil in Placitas - It can be done

In early 2005, LHWP will conduct a day-long planning retreat to educate stakeholders on current watershed conditions, elicit their input on watershed restoration priorities, and involve stakeholders in the WRAS process.

LHWP will conduct an additional watershed tour during Spring 2005. Similar to past watershed tours conducted by the LPA Watershed Project, the tour will be conducted by a professional expert in watershed science and management, and will focus on historical land use, watershed ecology, and site visits to impaired stream reaches and ongoing restoration project.

Task 1.2 Identify Preliminary Key Technical Issues

The designation of Las Huertas Creek in NM CWA 2002-2004 303(d) list for stream bottom deposits marks a primary technical issue and focus for the Watershed Group, WRAS and future on-the-ground restoration projects. Additional key technical issues that contribute to stream bottom deposits have been identified through engagement of stakeholders and numerous technical experts in Watershed Project Forums. Other technical issues will be identified from information received during the Stakeholder's Planning Retreat (Task 1.1.4).

Task 2. Develop Watershed Restoration Action Strategy (WRAS)

Work accomplished to date by the Watershed Project and the results of tasks completed within the structure of the watershed group formation, and additional elements to be completed in this Task 2 will be compiled to create a WRAS according to NMED and EPA guidelines.

The EPA and NMED have developed a list of nine key criteria for inclusion in a WRAS:

1. Identification of the causes and sources of non-point source water pollution that will need to be controlled.

2. Estimation of load reductions expected for the management measures used to achieve water quality goals.

3. A description of the management measures that will need to be implemented to achieve pollution load reductions, i.e., implementation of pollution control and natural resource restoration measures.

4. Funding needs to support the implementation and maintenance of restoration measures.

5. The public outreach method(s) and structure that will be used to engage and maintain public and governmental involvement including local, state, federal, and tribal governments.

6. A schedule for implementation of needed restoration measures and identification of appropriate lead agencies to oversee implementation, maintenance, monitoring and evaluation.

7. A description of interim, measurable milestones for the actions to be taken and desired water quality goals and outcomes.

8. A set of criteria that can be used to determine whether load reductions are being achieved over time and substantial progress is being made towards achieving water quality standards.

9. Any monitoring and evaluation activities needed to refine the problems or assess progress towards achieving water quality goals.

The Watershed Project proposes to accomplish these nine elements within the following general WRAS task structure.

Task 2.1 Summarize Public Outreach (EPA WRAS Item No. 5) This task will primarily incorporate the results of the public outreach and participation elements developed under Task 1.

Task 2.2 Prepare Watershed Baseline Assessment and Inventory Research will be conducted using available data and records to document historical conditions of the Las Huertas Creek and watershed against which impacts may be measured. Existing reports and results of previous studies, and additional information collected during Task 1 activities will be compiled, archived and evaluated. The Watershed Project will prepare extensive mapping documenting watershed boundaries, tributaries, land use, and land ownership. Vegetation, slope, soils and animal biodiversity maps will be created from surveys and USGS metadata. This section will formulate a preliminary list of causes and sources of non-point source (NPS) pollution (EPA WRAS Item 1.). Any Best Management Practices (BMPs) developed and implemented to date will be summarized.

Task 2.3 Conduct Watershed Monitoring and Evaluation Plans for monitoring for impacts defined under Task 2.2 and other potential polluting constituents will be generated, incorporating existing agency efforts. Monitoring activities will be coordinated with water quality monitoring planned by NMED for the Las Huertas Creek in 2005.

Task 2.4 Define Specific Water Quality Problems and Goals All information compiled under Tasks 2.1 through 2.3 will be incorporated into defining specific water quality problems and their sources. Goals for reduction of target constituents will be formulated based on EPA/NMED water quality standards and TMDL guidelines. Contaminant load reductions required to reach desired TMDL goals (EPA WRAS Item 2) will be formulated using analysis methods consistent with EPA/NMED protocols.

Task 2.5 Define Actions to Obtain Water Quality Goals. Using any existing BMPs defined under Task 2.2 as a basis, a list of appropriate actions for achieving the defined water quality goals and TMDL load reductions will be compiled. The listed actions will be ranked according to technical feasibility, administrative feasibility, cost, benefits, time of implementation, and

effectiveness. A short list of recommended actions for implementation will be prepared. This task will address EPA WRAS Items 3, 8 and 9.

Task 2.6 Prepare Implementation Schedule LHWP will prepare a Watershed Action Plan (WAP) for implementing selected restoration actions including schedules and milestones. Plans for implementing follow-up programs to measure effectiveness of BMPs and restoration measures will be included. This task will address EPA WRAS Items 6 and 7.

Taks 2.7 Funding Appropriate sources of public and private funding, including matching fund considerations, required to implement the full schedule of activities described in Task 2.6 will be developed. This task addresses EPA WRAS Item 4.

Task 3. Project Reporting and Administration

Task 3.1 Prepare Quarterly Reports. For each quarter of the calendar year, a report will be prepared according to the suggested NMED reporting format. The report will summarize progress on tasks during the preceding quarter, project expenditures relative to project budget, obstacles and/or change in operating conditions encountered, and any requests to modify the workplan as a result of these changes. The quarterly report for the fourth quarter will be incorporated in the annual report.

Task 3.2 Prepare Annual Report. An annual report will be prepared for the year 2005. The report will summarize progress on all tasks completed during the time period, any obstacles and/or changes in operating conditions, and any resulting changes in the workplan.

Task 3.3 Prepare Final Project Report. LHWP will submit a final project report in May 2006. The final report will follow suggested EPA format, and summarize all work completed, effectiveness measures, obstacles and/or changes in operating conditions encountered during the project, lessons learned, and technical transfer opportunities.

Task 3.4 Project Administration In addition to the scheduled reports, additional administrative work will be required to manage grant funds in accordance with Exhibits 2 and 3 of RFP:FY04-SWQB/NPS-0001. Selected anticipated office supplies (see Budget Section) will be acquired. A local fiscal agent for future on-the-ground project work will be enlisted.

TASKS, SUBTASKS, OBJECTIVES, DELIVERABLES AND COST ESTIMATES

A detailed chronology of the previously described tasks with associated objectives, deliverables and cost estimates is provided in Table 1.

COORDINATION, ROLES AND RESPONSIBILITIES

LPA will serve as the designated fiscal agent for managing and administering the Las Huertas Watershed Project grant. The LHWP will serve as the main forum for coordinating stakeholders and participants.

The following tables list organizations and public agencies involved in this project. Table 2 lists core group cooperators, and Table 3 lists stakeholders and cooperator organizations the LPA and/or the LHWP plan to contact for technical and financial assistance and for outreach and execution of the project. LPA and the LHWP anticipate that several agencies and organizations from the second list will join the group of core cooperators during the course of the project.

Table 2. Core Project Cooperators

Organization/Agency (Who)	Specific Role (Why)	Responsibilities (What)
Las Huertas Watershed Project	Project co-initiator with LPA, coordinator of project activities with external agencies and organizations	Watershed coordinator, project management, organization, administration and reporting to NMED and EPA.
Las Placitas Association	Project co-initiator with LHWP, administration of legal and financial accounting aspects of project.	Oversight of project accounting and reporting, contractual matters and compliance with laws of the County, State and Nation.
University of New Mexico	Technical support role in public participation aspects of project (School of Architecture and Planning and/or Water Resources Administration Program)	Provide technical assistance in Public Outreach and Education Program (Task 1.1).
New Mexico Environment Department Surface Water Quality Bureau (NMED/SWQB)	Cooperator, advisor, technical assistance and immediate client for the EPA-319 watershed project.	Communicate project deliverables to EPA, provide guidance to project administration and planning, assist in general project progress assessments.
Volunteer Task Force (VTF)	Liaison with local homeowners, and cooperator in watershed-related service learning projects.	Recruit and organize community volunteers for stakeholder planning and educational events. Volunteers to assist with planning of rehabilitation work; participation in monitoring and maintenance, financial and in-kind contributions to dissemination of project results.

Table 3. Cooperators in Technical Assistance, Outreach and Project Expansion.

Organization/Agency (Who)	Specific Role (Why)	Responsibilities (What)
USDA Forest Service	Management expertise and responsibility for the headwaters of the watershed; source of watershed data and defining NPS impacts.	Ongoing dialogue with LHWP about expanding project activities to headwaters area in the future; guidance on prioritizing remedial measures.
Sandia Pueblo	Trustee of T'uf Bien Shur Bien Preservation Trust in watershed headwaters.	Ongoing dialogue with LHWP about expanding project activities to headwaters area in the future.
USDOI Bureau of Land Management	Management expertise and responsibility for selected BLM range land area in the watershed.	Ongoing dialogue with LHWP about expanding project activities to BLM rangeland areas in the future.
USDA Natural Resources Conservation Service (NRCS)	Technical expertise and potential funding source for private land rehabilitation projects.	Ongoing dialogue to obtain technical and financial support for planned restoration projects.
New Mexico Department of Transportation	Management expertise and responsibility for highway right of way zones in the watershed; source data on NPS impacts.	Ongoing dialogue with LHWP about expanding project activities to state highway zones in the future.
Neighborhood Associations	Input regarding potential restoration activities within individual subdivision properties.	Provide in-kind support for projects on private land.
Pueblo of Santa Ana	Downstream landowners, potential beneficiaries and partners in land restoration work.	Maintain dialog with LHWP on issues that affect Pueblo land.

NPS MANAGEMENT PROGRAM DESIGNATION

Las Huertas Creek drains into the Rio Grande in the vicinity of the Santa Ana Pueblo, making it part of the Rio-Grande Albuquerque Watershed (HUC 13020203) in the NPS Management Program.

The project supports stated long-term goals within the NPS Management Plan for New Mexico, established in 1999:

- Implement effective watershed-based NPS restoration and protection programs;
- Provide effective education and outreach programs that identify problems and explain critical water quality problems to stakeholders;
- Provide information and assistance to county and municipal governments that encourages their participation in NPS pollution management and prevention, ultimately leading to formalized partnerships.

PROJECT LEADS: NAME, TELEPHONE NUMBER AND ORGANIZATION RESPONSIBLE FOR IMPLEMENTING THE PROJECT

NAME	**TELEPHONE**	**AFFILIATION, PROJECT ROLE**
Reid Bandeen	505-867-5477	LHWP, Watershed Coordinator
Lolly Jones	505-771-8020	LHWP, Administrative and financial reporting
Jennifer Nelson	505-459-3186	LHWP/UNM, Public Outreach and VTF
Julie McCollough		LHWP, Accounting Review, Database Administrator
Maryann McGraw	505-827-0581	NMED Surface Water Quality Bureau, Project Officer
Alex Puglisi	505-867-4533	LHWP/Sandia Pueblo, Water Quality Specialist

Table 3. Project Budget			
(BREAKDOWN OF BUDGET CATEGORIES)	CWA 319 Funds	Cash or In-Kind MATCH	TOTAL
Personnel	$26,510	$25,250	$51,760
Supplies & Services	$8,746	$3,200	$11,946
Travel	$590	$0	$590
TOTAL	**$35,846**	**$28,450**	**$64,296**
Per Cent of Total	56	44	

ANNUAL BUDGETS			
Table 4. Annual Budget for FY05			
(BREAKDOWN OF BUDGET CATEGORIES)	CWA 319 Funds	Cash or In-Kind MATCH	TOTAL
Personnel	$16,975	$15,150	$32,125
Supplies & Services	$6,489	$1,440	$7,929
Travel	$420	$0	$420

TOTAL	**$23,884**	**$16,590**	**$40,474**
Per Cent of Total	59	41	
Explanation of Categories			
(BREAKDOWN OF BUDGET CATEGORIES)	CWA 319 Funds	Cash or In-Kind MATCH	TOTAL
Personnel			
Watershed Coordinator	$7,700	$2,300	$10,000
Attorney	$325	$0	$325
Database/Accounting Specialist	$2,850	$4,650	$7,500
Volunteer Coordinator	$4,150	$0	$4,150
GIS Specialist	$1,350	$0	$1,350
Volunteer planning, labor, monitoring	$0	$5,000	$5,000
Administrative		$3,200	$3,200
Workshop Speakers & Leaders	$600	$0	$600
SUPPLIES and SERVICES			
Software	$650		$650
Data Acquisition Fees	$465		$465
Photopies and Production	$1,626		$1,626
Shipping & Postage	$686		$686
Printing (outreach)	$432		$432
Advertising	$510		$510
Liability Insurance Upgrade	$700		$700
Computer Equipment & Services	$100	$800	$900
Telecom Equipment & Services	$320	$640	$960
Internet/Web Site	$350		$350
Laboratory Services	$450		$450
Meeting Facility Rental	$200		$200
TRAVEL			
Mileage	$250		$250
Lodging/Perdiem	$170		$170
TOTAL	**$23,884**	**$16,590**	**$40,474**
Per Cent of Total	59%	41%	100%

ANNUAL BUDGETS			
Table 5. Annual Budget for FY06			
(BREAKDOWN OF BUDGET CATEGORIES)	CWA 319 Funds	Cash or In-Kind MATCH	TOTAL
Personnel	$9,535	$10,100	$19,635

Supplies & Services	$2,257	$1,760	$4,017
Travel	$170	$0	$170
TOTAL	**$11,962**	**$11,860**	**$23,822**
Per Cent of Total	50	50	
Explanation of Categories			
(BREAKDOWN OF BUDGET CATEGORIES)	CWA 319 Funds	Cash or In-Kind MATCH	TOTAL
Personnel			
Watershed Coordinator	$5,000	$1,500	$6,500
Attorney	$260	$0	$260
Database/Accounting Specialist	$1,750	$2,800	$4,550
Volunteer Coordinator	$1,350	$0	$1,350
GIS Specialist	$575	$0	$575
Volunteer planning, labor, monitoring	$0	$1,000	$1,000
Administrative		$4,800	$4,800
Workshop Speakers & Leaders	$600	$0	$600
SUPPLIES and SERVICES			
Software	$0		$0
Data Acquisition Fees	$0		$0
Photopies and Production	$631		$631
Shipping & Postage	$303		$303
Printing (outreach)	$168		$168
Advertising	$200		$200
Liability Insurance Upgrade	$0		$0
Computer Equipment & Services	$100	$800	$900
Telecom Equipment & Services	$480	$960	$1,440
Internet/Web Site	$275		$275
Laboratory Services	$0		$0
Meeting Facility Rental	$100		$100
TRAVEL			
Mileage	$100		$100
Lodging/Perdiem	$70		$70
TOTAL	**$11,962**	**$11,860**	**$23,822**
Per Cent of Total	50%	50%	100%