



Post Hermit's Peak/Calf Canyon Fire Expansion Project

TECHNICAL PROPOSAL

For WaterSMART Cooperative Watershed Management Grant Proposal—Phase I (BOR Opportunity No. R23AS00362)

Hermit's Peak Watershed Alliance 289 County Road A2 Sapello, NM 87745

Lea Knutson Executive Director/Project Manager Iknutson@hermitspeakwatersheds.org (505) 617-1360

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EXECUTIVE SUMMARY

December 1, 2023 Hermit's Peak Watershed Alliance Sapello, New Mexico San Miguel County

Project Summary:

Working in collaboration with the New Mexico Environment Department (NMED), the Rio Mora National Wildlife Refuge, the U.S. Forest Service, the Tierra y Montes Soil and Water Conservation District, the County of San Miguel, and private land owners, the Hermit's Peak Watershed Alliance completed New Mexico Environment Department administered EPA Clean Water Act Section 319, Watershed-Based Plans for four major watersheds within HPWA's service area. We are pursuing broad support to implement watershed restoration recommended in those plans. We developed EPA approved Watershed-Based Plans for the Upper Gallinas River, Lower Mora River, Sapello River, and Wolf Creek watersheds and have been working to implement these plans largely with NMED funding. The vast expanse of these watersheds (approximately 1,500 square miles) and the dire condition of them necessitates a broad source of support to carry out needed and comprehensive restoration. This project will address planning for critically needed watershed restoration projects focusing on the Upper Gallinas River, Lower Mora River, and Sapello River. These watersheds have legacy degradation that has resulted from 175 years of modern human use. Even more critically, all of them were severely affected by Hermit's Peak/Calf Canyon (HPCC) Fire of 2022.

Project Duration:

It is anticipated that planning for this project will begin January 2025 with completion by December 31, 2026. As planning progresses, HPWA will seek funding for implementation in hopes that project implementation can begin early in 2027.

PROJECT LOCATION

This project will include watersheds within San Miguel and Mora Counties in Northeastern New Mexico, most of which were directly impacted by the Hermit's Peak/Calf Canyon Fire, the largest wildfire ever experienced in New Mexico. All three of the watersheds targeted by this project were already included in planning for mitigation efforts to address degradation from legacy issues; the result of 175 years of modern human impact on these essential watersheds. Even before the fire, the Sapello River, Lower Mora River, and Upper Gallinas River were selected for active mitigation planning and implementation because of the extent of issues, a need that has grown significantly as a result of the over 340,000 acres of prime forest and agricultural lands

burned by the HPCC Fire now causing significant degradation of watersheds. The fire burned trees and other vegetation causing extensive ash and other fire debris blanketing watersheds. In addition, since the fire, the whole region has suffered massive erosion and flooding caused by the absence of trees and other foliage needed to capture rainfall and snowmelt.



The three watersheds targeted by this project are the Lower Mora Watershed, the Sapello Watershed, and the Upper Gallinas Watershed.

Applicant Category

Incorporated in June of 2008, the Hermit's Peak Watershed Alliance is obviously an **Existing Watershed Group** addressing water quality in San Miguel and Mora Counties for over fifteen years. Accomplishments of the organization include but are not limited to:

- Restored healthy conditions to 12 stream reaches
- Enhanced 30,000 upland acres.
- Completed 75 on-theground projects.
- Worked with 46 landowners.
- Developed four watershed plans.
- Acquired \$5.7 million in grants to improve watershed conditions.
- Hosted hundreds of watershed educational events.
- Engaged 3,000 plus individuals in the work including paid staff and a large contingent of environmentally conscious volunteers.
- Provided over 55 internship opportunities for university students.



A "trash rack," created in a tributary of the Upper Gallinas River to slow post fire flood waters and sequester sediment. It is an example of one of the many structures used by HPWA to improve watershed quality through the use of available natural materials.

• Begun to develop a new cohort of watershed restoration practitioners by training and employing local young people (12 in 2023, 20 planned in 2024).

Not only has HPWA had a significant impact on watershed quality in the area, but the organization has been highly successful in creating a cultural bridge. This success is due to HPWA's efforts drawing upon shared environmental concerns between the long-standing Hispanic and Indigenous groups in a minority-majority region, and the mainstream culture dominant throughout the nation.

Eligibility of Applicant

The Hermit's Peak Watershed Alliance meets all eligibility requirements for WaterSMART Cooperative Watershed Management funding. HPWA exists and has always existed solely in Northeastern New Mexico working entirely in San Miguel and Mora Counties. As a nonprofit organization recognized both by the State of New Mexico and the IRS, organizational eligibility is met as well.



A rock dam constructed to slow water flow near water sources, thereby decreasing or preventing flooding downstream and addressing water erosion.

As a grassroots organization, HPWA has been highly effective in restoring watershed health and promoting and enabling sustainable use of water resources in five separate watersheds, including working with our own membership and partner organizations in making consensus-based decisions in identifying the hazards to be addressed and solutions for those hazards in each of the target watersheds. Diversity in stakeholders is wide both in purpose of organizations as well as the variety of culturally based organizations addressing water quality. Representation includes both organizations and individual landowners involved in livestock grazing, timber production, land development, recreation or tourism, irrigated agriculture (including area acequia associations), the environment, municipal water supplies, private property owners, Federal, state, and local governments, and disadvantaged communities. Representation of the variety of stakeholders is apparent in letters of support from partner groups including:

- City of Las Vegas, NM
- Santa Fe National Forest Pecos/Las Vegas Ranger District
- New Mexico Environment Department
- Northern New Mexico National Wildlife Refuge Complex
- Fort Union Ranch
- Trout Springs Ranch
- Libby Smith

Project Description

After completing New Mexico Environment Department administered EPA Clean Water Act Section 319, Watershed-Based Plans for four major watersheds within HPWA's service area, we are pursuing broad support to implement watershed restoration recommended in those plans. HPWA developed EPA approved Watershed-Based Plans for the Upper Gallinas Watershed, Lower Gallinas Watershed, Lower Mora Watershed, Sapello Watershed, and Tecolote Watershed. HPWA and fellow stakeholders have been working to implement these plans largely with New Mexico Environment Department (NMED) funding. The vast expanse of these watersheds (approximately 1,500 square miles) and the dire condition of them necessitates a broad source of support to carry out needed and comprehensive restoration.

These watersheds have legacy degradation that has resulted from 175 years of modern human use. Then, all of them were severely affected by the Hermit's Peak/Calf Canyon Fire of 2022. Degradation from both legacy issues and the recent fire is multifaceted but centers on the following watershed health problems:

- Widespread stream entrenchment and with consequent straightening and channel simplification
- Disconnection of streams and rivers from their floodplains
- Loss of instream structural diversity (e.g., sinuosity, pools, riffles, large woody debris, back channels)
- Loss of riparian and floodplain vegetation
- Loss of off channel riverine and slope wetlands
- Loss of aquatic and riparian wildlife habitat
- Loss of river related keystone species (e.g., beaver)
- Water quality impairments involving temperature, sediment, *E. coli*, nutrients, dissolved oxygen, and now fire related pollutants
- Extreme water quantity conditions (e.g., excessive drought and floods)
- Loss of upland forests
- Widespread upland erosion

Both small- and large-scale restoration of degraded streams and wetlands and their contributing areas is needed to repair legacy and fire related damages and brace both our watersheds and communities for climate change issues in the future.

While already developed Watershed-Based Plans provide the framework for restoring watershed health and improving water quality and quantity issues, they are not specific enough to begin implementation of large-scale projects. Coordination with landowner partners, detailed designs, logistical planning, and US Army Corps of Engineers 404 Clean Water Act Permits are needed to ready projects for construction.

This BOR grant proposal aims to meet these more detailed planning needs for a number of large (~\$500,000) and high impact projects in HPWA's service area and in the areas affected by the Hermit's Peak/Calf Canyon Fire.

This BOR proposal includes funding for HPWA staff to select suitable projects among the many that are already conceptualized, secure landowner agreements to ensure the cooperation with project partners, coordinate and assist design work by an

expert watershed restoration contractor, develop a project implementation plan, and develop preparatory documentation (e.g., Threatened and Endangered Species surveys, Cultural Resources Surveys, and complete design documents) for eventual submittal of the 404 Clean Water Act permit applications with the US Army Corps of Engineers. Funding requested includes contracting with a master watershed restoration expert, Watershed Artisans Inc., who will design and budget projects to enable projects that will ultimately carry out restoration implementation funded by future grants. Expert contractors will also be retained to produce preparatory documentation for the 404-permit application. Together all these pieces will assemble permit and shovel ready projects to seek implementation support. Funding to submit the 404-permit will be sought with implementation proposals.

Task Areas to Be Addressed:

The following table Identifies the BOR Task Areas eligible for this program as well as proposed HPWA activities that address designated tasks.

	D 1 4 111 D 144 A 41 141		
Task Area	Related HPWA Activities		
Restoration Planning: Existing Watershed restoration plans for the Upper Gallin Sapello, and Lower Mora Rivers will be updated with plan for specific restoration projects at areas targeted for the greatest need and greatest benefit, especially those affect by the HPCC Fire.			
	Initial project planning will include assessments of conditions at key locations in all three watersheds. Plans for intersession efforts will be customized for each site. This includes items such as identification or physical problems with waterways such as disconnection of streams and rivers from their floodplain, loss of off-channel wetlands, loss of riparian and floodplain vegetation, etc.		
	Working with technical experts in each field, begin analysis of water chemistry and contaminants, physical condition of waterways, any anthropological or environmental issues that may affect both planning and implementation, and more as appropriate. Status identified for the project baseline will continue to be a reference point as monitoring continues during project implementation and with regular monitoring over several years, comparing new conditions to start-up baseline.		
	Both individual and group meetings with project stakeholders (e.g., landowners or stewards) to ensure their participation in project planning. This will include input from those with		

Task Area	Related HPWA Activities			
	intimate knowledge of targeted areas, including incorporation			
	of landowner suggestions into expert assessment and			
T 10 W (1 1	planning.			
Task C: Watershed	Within the designated areas of existing Watershed-Based			
Management	Plans, identify specific areas to be targeted for project			
Project Design	planning.			
	Within the framework of existing Watershed-Based Plans, identify project goals and measures of success, especially considering new threats to watershed health caused by the HPCC Fire.			
	Work with Watershed Artisans, Inc. for creation of project surveys, maps, and needed assessments.			
	Create permit ready design documents for each of the identified project areas to include project elements, identification of technical assistance needed, planning level documents, timelines, and cost estimates.			
	Develop background documentation for USACE 404 permit applications including affected threatened and endangered species and cultural resources identification. Prepare 404 permit documentation for easy submittal once implementation is funded and ready to begin.			
	Assemble all project documents and budgets ready for inclusion in future implementation proposals and as potential addenda to Watershed-Based Plans if appropriate			

E.1 Evaluation Criteria

E.1.1 Evaluation Criterion A—Watershed Group Diversity and Geographic Scope (30 points)

E.1.1.1. Sub-criterion No. A1. Watershed Group Diversity

Understanding the diverse nature of all HPWA projects requires background about the dedication to proper stewardship of land, water and air that spans three cultures in a minority-majority region that includes a population approximately 80% Hispanic and three percent Indigenous. Even among the "new" arrivals from the predominantly Anglo population, there is a predisposition for a significant population of

individuals drawn to New Mexico's natural beauty, bringing with them a common dedication to environmental issues. The ethnic diversity of the population translates into organizational diversity for the stakeholders in HPWA's efforts to revive area watersheds.

In almost all areas identified for projects, there is a presence of acequia (traditional governance and infrastructure of water distribution and allocation for farming irrigation and domestic uses) community organizations which have used and maintained irrigation systems that were first developed as part of Spanish settlements in the 17th through 19th Centuries. Creation of acequias was part of the requirement for declaration of Spanish and then Mexican land grants in a territory that was once the northernmost portion of Latin America. Localized acequia community groups participate in planning and implementation of HPWA watershed restoration projects when such projects involve areas where historical acequias remain in use.

Some of the organizational stakeholders are an outgrowth of local acequia and land grant organizations which have morphed into modern organizations that provide a bridge between historical and traditional communities and the introduction of modern techniques both in watershed management and organizational structure. For example, the **Tierra y Montes Soil and Water Conservation Districts** serve the Gallinas and Sapello River Watersheds. Soil and Water Conservation Districts (SWCD) are independent subdivisions of state government governed by boards of supervisors, local landowners and residents elected or appointed to the board for four-year terms. A SWCD is authorized by the NM Soil and Water Conservation District Act to conserve and develop the natural resources of the state, provide for flood control, preserve wildlife, protect the tax base, and promote the health, safety, and general welfare of the people of New Mexico. Since participation in Tierra y Montes involves local landowners, this organization as a subdivision of state government provides a communication and philosophical bridge between the ancient Hispanic cultural traditions of water management and modern techniques and understanding.

Examples of frequent organizational stakeholders in HPWA projects include but are not limited to:

- U.S. Department of the Interior Fish and Wildlife Service (USFWS)—Expansion into reclamation and watershed repair projects included in this proposal contains portions of the 952,000-acre Rio Mora National Wildlife Refuge. The relationship between HPWA and the Rio Mora Refuge is well established and will continue to be so as this project expands restoration to watershed areas within the Refuge.
- U.S. Forest Service—The Sapello Watershed plan alone includes 26,931 acres
 of national forest. Within the general service area of HPWA, the US Forest Service
 has completed the Northern New Mexico Riparian, Aquatic, and Wetland
 Restoration Project in the Santa Fe and Carson National Forests. It covers projects
 that occur in a 100-foot buffer around riparian vegetation, perennial and intermittent
 streams, wetlands, playas, seeps, springs and a 15-foot buffer around ephemeral
 streams. HPWA and U.S. Forest Service teams collaborate and communicate in
 separate and combined efforts for watershed restoration, ensuring effective efforts
 in a planned and coordinated manner.
- USDA, Natural Resources Conservation Service (NRCS)— provides farmers and ranchers with financial and technical assistance to voluntarily put conservation on the ground, not only helping the environment but agricultural

- operations too. HPWA and participating landowners work with NRCS to enhance efforts to address watershed issues in the areas served by HPWA.
- New Mexico Energy, Minerals, and Natural Resources Department (EMNRD)—
 The Forestry Division and Mining and Minerals Division within EMNRD are the
 most relevant sections to implementing HPWA efforts in the Sapello River
 Watershed. The Forestry Division cooperates with USDA NRCS and Tierra y
 Montes SWCD to assist landowners with forest thinning, prescribed fire, and
 other forest health related projects. HPWA strives to ensure that planning and
 implementation of watershed projects enhance rather than compete with
 EMNRD supported efforts.
- New Mexico Office of the State Engineer— address issues related to water use, water rights, and water planning. The OSE and the Interstate Stream
 Commission develop and update Statewide Water Plans and Regional Water
 Plans. The regional plan for San Miguel-Mora-Guadalupe Counties was updated
 in July 2016) and is a valuable resource as HPWA works with the State
 Engineer to plan and implement projects that enhance these state-wide efforts.
- New Mexico Acequia Association—Although localized administration and decision-making is available for individual acequias areas served by HPWA, the ability to work collaboratively includes working with state-wide leadership of acequia systems through this organization.
- The High Plains Grassland Alliance (HPGA)—The HPGA was casually formed in 2012 and later formalized by receiving their 501(c)(3) status in 2014. HPGA represents over 200,000 acres of private ranchland in Northeastern New Mexico consisting of five private ranch members and two public land managers (USFWS, NPS). This community of landowners and ranch managers is dedicated to passing on a healthier, more productive landscape to future generations. They are cooperative with HPWA when HWPA watershed projects include land owned by their membership, including aiding in planning, and providing access for HPWA work crews during actual project implementation.
- The Playa Lakes Joint Venture (PLJV)—is a regional partnership of federal and state wildlife agencies, conservation groups and private industry dedicated to conserving bird habitat throughout the western Great Plains — including portions of Colorado, Kansas, Nebraska, New Mexico, Oklahoma, and Texas. They provide science-based planning tools, decision-support tools, and outreach to help habitat managers become more efficient and effective at delivering on-theground conservation.

In the interest of brevity, the following is a simple list of existing, strong stakeholders in planning and implementing HPWA projects:

NM Environment Department NM Energy Minerals and Natural Resources, YCC program

Quivira Coalition
Albuquerque Wildlife Federation

Kirk Gadzia, Resource Management Services, LLC Aaron Kaufman, Southwest Urban Hydrology, LLC

Gordon Tooley, Tooley's Trees Institute of Applied Ecology

Craig Sponholtz, Watershed Artisans, Inc.
NM Forest and Watershed Restoration Institute

New Mexico Land Conservancy United World College – USA Rangeland Hands, LLC City of Las Vegas San Miguel County NM Highlands University Conservation Science Center, NMHU
Upper Pecos Watershed Association
Cimarron Watershed Alliance
Forest Stewards Guild
RiverSource
Rio Grande Return

E.1.1.2. Sub-criterion No. A2. Geographic Scope

The Hermit's Peak Watershed Alliance currently works within five separate watersheds, four of which have EPA approved Watershed Based Plans all contained in parts of San Miguel and Mora Counties of New Mexico. When combined, all plans cover a huge area of primarily mountainous areas in the southern portion of the Sangre de Cristo Mountains with overlap into the prairies at the start of the natural delineation between the Rocky Mountains, of which the Sangre de Cristos are part, and into the

Hermit's Peak Watershed Alliance Service Area SAPELLO WATERSHED UPPER GALLINAS WATERSHED LOWER GALLINAS WATERSHED TECOLOTE WATERSHED Hermit's Peak Watershed Alliance, 2021

edge of the Great Plains.

Within those watersheds, HPWA has already built strong relationships with both organizations serving land and water management as well as landowners and community groups living and working within them. This proposal specifically addresses the need for project planning within the Sapello River Watershed, the Upper Gallinas Watershed, and the Lower Mora Watershed. Support from BOR would enable a comprehensive analysis within chosen watersheds to reassess needs and issues, plan mitigation

projects – including widespread stakeholder participation through direct meetings and public forums—and lay the groundwork, including fundraising, to make those projects a reality.

In addition to watershed needs and issues identified before the wide-spread destruction of the Hermit's Peak/Calf Canyon Fire, there are now extensive and immediate threats to water quality, motivating the need to revise existing plans or create new customized plans especially required to target the slowing and retention of heavy rainfall and snowmelt in the areas where the fire destroyed the natural environmental system ensuring natural water replenishment systems. Post fire flooding is a major issue and will be for some years to come. When the monsoons of 2022 arrived in the area, it gave firefighters the support needed to finally control a wildfire that raged for nearly five months, but it offered a new risk, flooding. Through a combination of effective evacuations and pure luck, no deaths were directly attributed to the fires, but four people died in post-fire flooding.

As illustrated in the extensive list of stakeholders actively participating in HPWA efforts, HPWA already has the contacts in place to ensure comprehensive participation in assessing needs and planning projects.

E.1.2. Evaluation Criterion B— Developing Strategies to Address Critical Watershed Needs (35 points)

E.1.2.1. Sub-criterion No. B1. Critical Watershed Needs or Issues

By far, the largest and most immediate threat to the watersheds in San Miguel and Mora Counties involves the effects of the massive Hermit's Peak/Calf Canyon Fire of 2022 which destroyed over 340,000 acres of wildlands and urban interface, almost entirely within this two-county area. According to the U.S. Geological Survey, 80 percent of freshwater resources in the U.S. come from forests. Last year's wildfire impacted all five of the watersheds currently served by HPWA.

While the fire was active, it deposited ash and debris in creeks, ponds, lakes, and reservoirs, having an immediate impact on water sources for individual consumers and the many villages and communities in the area. It did not end there.

"The rivers will be broken for years," stated one water quality technician serving the City of Las Vegas, NM following the fire.

Las Vegas is the largest community directly impacted by the fire. Contractors and City staff have worked together to create both short and long-term solutions to provide clean water for their residents. A \$160 million project is proposed for long-term resolution, and interim efforts have progressed to the point where the City is no longer distributing large quantities of drinking water to the community.

While communities can take steps to deal with contamination of drinking water, that is not the only problem caused by the fires. Flooding and erosion are a threat to the entire region, and HPWA is part of the larger effort to address those issues. Because of the methods and techniques offered by our organization, we provide a primary mitigation system that starts far upstream from the flood waters. Without mitigation, the water which builds at water sources grows downstream into a real and present threat

not only to water quality but also to homes and communities as well as the land itself. By using the human power relying on a combination of paid crews and volunteers, HPWA constructs one-rock dams, trash traps, and similar mitigation tools at source waters, slowing flood waters and retaining water on mountainsides, thereby aiding in nature's efforts to reseed, growing vegetation that mitigates erosion and converts burned areas into a recovering ecosystem that will, many years or decades later, rejuvenate the natural forest lands.

Long before the fires, HPWA was already working with stakeholders to address watershed issues largely due to 175 years of agricultural, residential, and commercial use These watersheds have legacy degradation that has resulted from 175 years of modern human use. Degradation from both legacy issues and the recent fire is multifaceted but centers on the following watershed health problems:

- Widespread stream entrenchment and straightening
- Disconnection of streams and rivers from their floodplains
- Loss of instream structural diversity (e.g., sinuosity, pools, riffles, large woody debris, back channels)
- Loss of riparian and floodplain vegetation
- Loss of off channel riverine and slope wetlands
- Loss of aquatic and riparian wildlife habitat
- Loss of river related keystone species (e.g., beaver)
- Water quality impairments involving temperature, sediment, E. coli, nutrients, dissolved oxygen, and now fire related pollutants.
- Extreme water quantity conditions (e.g., excessive drought and floods)
- Loss of upland forests
- Widespread upland erosion

Both small- and large-scale restoration of degraded streams and wetlands and their contributing areas is needed to repair legacy and fire related damages and brace both our watersheds and communities for climate change issues into the future.

E.1.2.2. Sub-criterion No. B2. Project Benefits

HPWA Project's link to addressing watershed issues:

HPWA watershed mitigation efforts draw upon scientifically proven methods to address water quality and environmental health in the watersheds by aiding creation of naturally beneficial waterflow and retention. Planning starts with hydrologic models which provide quantitative and spatial assessments of sediment generation and transport processes, develop pollutant loading estimates, and yield information on the effectiveness of management and nature-based restoration measures and land use changes applied at the field, farm, and watershed scale.

Over the years, HPWA has developed systems for assessing the status of threats to watershed quality and then planning individual projects that focus on the most effective areas. This project will follow that model, identifying specific areas where the best efforts

can be achieved in addressing both fire related hazards and legacy issues present even before the fires.

For example, addressing the need for sedimentation/siltation load reduction, a common issue in local watersheds, a watershed-specific model with HAWQS-SWAT (Hydrologic and Water Quality System [Version 1.2] and the Soil and Water Assessment Tool) has been used and is available to assess the magnitude of the sediment problem, evaluate potential solutions, and incorporate that information into project planning.

Existing efforts on the part of HPWA to prevent the heavy impact of post-fire flooding and erosion have already begun. Because of the ability to attack flood water flow and retention of soil near the watershed sources, HPWA's efforts are an important part of the overall efforts to minimize damage. While heavy equipment and both small and large-scale flood barriers performed by contractors mobilized to protect homes and structures is important, the methods used by HPWA provide mitigation at water sources, providing restraint of flood waters at early stages which can not only decrease flooding in the frequently populated areas in the riparian basins along rivers but also helps with environmental improvements along the mountainsides themselves.

HPWA's pre-fire efforts to address long-standing issues such as disconnection of streams and rivers from their floodplains, water contamination such as sediment, *E. coli*, and dissolved oxygen. Both the short and long-term impacts of such efforts improve quality of the watersheds from source to end sites.

Task C: Watershed Management Project Design

An update is needed for on-site inspection of severely affected perennial streams that concentrate flow and sediment from the 2022 wildfire. The three watersheds included in this project were selected largely because they are in the most devastated areas of the burn scar. Six individual projects will focus on areas identified by this updated assessment process.

Restoration plans will rely largely on identification of target sites where water and silt retention will likely have the greatest impact on the overall health of the watershed. The plan will progress into identification of the resources needed to address those restoration opportunities with identification of the financial, materials, and human resources needed for the project and the methods to recruit and deploy those resources into the field.

Expected Benefits

Anticipated benefits of this project will include but not limited to:

- Enhancing nature's efforts to restore burned mountainsides by retaining rainfall and snowmelt to enhance vegetative growth.
- Preventing and restoring river channel degradation from excessive water flow and sediment delivery to mainstem streams.
- Decrease the risks of flooding when source waters reach larger waterways, thereby decreasing erosion and the threat to life and property within the urban interface populated areas.
- Improve water quality by identifying and creating mitigation efforts for contaminants found in watersheds.

- Improve the quality and abundance of riparian and floodplain vegetation.
- Indirect benefit to multi-organizational and cultural collaboration in addressing environmental issues.

E.1.3. Evaluation Criterion C—Readiness to Proceed (20 points)

HPWA has a strong history of planning and implementing both small and large-scale projects within the existing Watershed-Based Plans. By drawing on both staff and contractual expertise, as funding becomes available to support efforts, the organization is ready to initiate planning for new projects, especially as we deal with new threats to the watersheds as result of devastating wildfire.

Below is a table delineating a schedule to complete planning for six new large-scale projects complying with existing Watershed-Based Plans, including modifications related to new hazards tied to the Hermit's Peak/Calf Canyon Fire. Please note that HPWA anticipates the planning phase of this effort will be completed within a 48-month timeframe. While this should be adequate to ensure quality mitigation projects, planning needs to be expedited as much as possible because of critical environmental needs in a post-fire region.

Tasks		Milestones	Responsible Parties	Dates
Conduct a preliminary review of conditions in the Sapello, Upper Gallinas, and Lower Mora Watersheds to identify priority project areas.	•	Areas identified for six specific mitigation projects	HPWA staff and contractors	Jan. 2025 to May '25
Convene stakeholders including landowners, technical experts, HPWA staff, acequia and land grant membership, pertinent federal and state agencies and others depending on situation.	•	At least one public meeting and recorded At least 1 individual meeting with key stakeholders held and recorded	HPWA staff and stakeholders	April '25 to June '25
Recruit technical experts concerning collection of key data such as level of water contamination, assessment of erosion, analysis of diverted stream and river flow, etc. Work with experts to collect key data for analysis and inclusion into project planning.	•	Technicians identified and recruited. Data collected, compiled, and analyzed	HPWA staff and contractors	June '25 to Sept. '25
If needed, revise sites selected for new projects and reevaluate	•	Site identification	HPWA staff	Aug '25 to

Tasks		Milestones	Responsible Parties	Dates
priorities as needed. Compile site prioritization from Low to High Priority.		updated and reasons clarified		Nov. '25
Specific site assessment, survey, and project designs as projects are clearly selected. As project designs are completed,	•	Six project designs completed Background	HPWA staff and contractors HPWA	Aug. '25 to Aug. '26 Sept. '25
develop 404 permit surveys and preparatory documents	•	information for six 404 permit applications	contractors	to Dec.
Reconvene stakeholders to review site selection and obtain updated information from landowners and those working regularly in vicinity of selected sites.	•	At least one public meeting held and recorded Individual meetings held and recorded as needed	HPWA staff, stakeholders	Dec. '25 to Feb. '26
Select members of project planning team.	•	A team of four to five individuals selected and agree to serve	HPWA staff and selected planning team members	Feb. '26 to March '26
Planning team reviews all data and stakeholder input, including site visits to proposed target areas.	•	Data and stakeholder input compiled and considered	Planning Team	March '26 to April '26
Fully research needs of identified project areas. Discuss and select best beneficial intersession efforts. Write the preliminary project plan. Present to affected HPWA leadership and stakeholders for review.	•	Plan draft completed and submitted for review	Planning Team, HPWA leadership, stakeholders	April '26 through July '26
Incorporate suggestions, edits, and input	•	Revised plan updated	Planning Team	July '26 to Sept '26
Select technical contractors for mapping, schematic representations, etc. for a final plan, incorporating items into the plan	•	Maps and schematic materials incorporated	Planning team	Sept. '26 to Nov '26

Tasks	Milestones	Responsible Parties	Dates
Make plans available to stakeholders. Also post for the public via the HPWA website.	Final plan compiled and published	HPWA staff contractors Planning Team	Nov. '26 to Dec. '26
Begin preliminary efforts to solicit support for Phase 2 (Implementation)	 Potential funders identified Solicitations initiated 	HPWA staff	Nov. '26 and beyond Phase 1 period.
Throughout the project, meet all grant reporting requirements	Complete all reporting requirements as directed by BOR	HPWA staff	Jan. '25 to Dec. '26 up to final report due date

<u>E.1.4. Evaluation Criterion D—Presidential and Department of the Interior Priorities (15 points)</u>

E.1.4.1. Climate Change

As a semi-arid region, northeastern New Mexico is especially vulnerable to the effects of climate change, especially as it applies to the supplies of fresh, usable water. For the people of this area, the availability of quality water depends almost entirely on the watersheds flowing from source waters within the Santa de Cristo Mountains. These areas were drastically affected by the HPCC Fire.

The area is already seeing the effects of climate change with rainfall sometimes experienced in the winter months when snowfall has always been the winter source of moisture. The effect continues into spring and summer because of limited snowpack high in the mountains, formerly a source of snowmelt throughout the spring and summer.

According to the U.S. Global Change Research Program Fifth Annual Climate Change Report to Congress and the President, the number of water-related billion dollar disasters in the nation has grown from three in 1980 to twenty in 2020. Severe storms top this list with areas such as northeastern New Mexico especially vulnerable to drought, a factor severely exacerbated by damage as the result of the areas huge wildfire in 2022.

Even before the fire, climate change increased the importance of HPWA's efforts to improve both the quality and the quantity of fresh surface and ground water by addressing the needs of watersheds. The importance of such efforts increased exponentially because of the damage the massive wildfire did to area watersheds.

E.1.4.2. Benefits to Disadvantaged, Underserved, and Tribal Communities

This entire region is a minority-majority area including approximately 80% Hispanic and three percent indigenous in HPWA's service area. Many of the locals are descendants of original Hispanic settlers and are *mestizo* with both Spanish and Indigenous heritage. It is common for those descendants to live on and continue to work on the land first settled by their families in the 17th through early 19th Centuries. Although not directly included in the HPWA service area, traditions and agricultural practices have been influenced by the nearby presence of the Picuris Pueblo.

One of the largely misunderstood complications from the fires involves differences in the perception of "wealth" between mainstream U.S. and local cultures. Incomes were frequently low compared to national statistics, but a contributing factor involved families who essentially lived with little or no debt because they resided in homes and on land inherited from past generations. Subsistence or modified subsistence living provided a sustainable lifestyle that was virtually destroyed for many when the harvesting of forest products and the grazing of livestock was eradicated as fire ran through family properties. This was exacerbated even more when homes and barns succumbed to the fire.

HPWA has long worked in tandem with local people who espouse conscientious stewardship of the land and water. The organization's partnership with the people and their way of life is more critical than ever as the community works together as they address the care and nurturing of damaged watersheds.

D.2.2.3. Project Budget

Summary					
6. Budget Object Category	Total Cost	Federal Estimated Amount	Non-Federal Estimated Amount		
a. Personnel	\$69,700				
b. Fringe Benefits	\$14,637				
c. Travel	\$2,640				
d. Equipment	\$0				
e. Supplies	\$2,000				
f. Contractual	\$183,600				
g. Construction	\$0				
h. Other Direct Costs	\$0				
i. Total Direct Costs	\$272,577				
i. Indirect Charges	\$27,258				
Total Costs	\$299,835	\$299,835	\$0		
	Cost Share Percentage	100%	0%		

The summary above shows the basic project budget. An in-depth budget narrative/justification (using the BOR template) is attached to the Budget Narrative attachment form.

D.2.2.4. Environmental and Cultural Resources Compliance

H.1.1. National Environmental Policy Act

When HPWA Watershed plans and projects fall within National Forest, common when addressing land in the high country of the westernmost part of the service area, the USFS manages this land for multiple uses including for its value as watershed headwaters. HPWA cooperates with the USFS related to forest management, road improvement projects, and instream and wetland restoration. The US Forest Service has completed the Northern New Mexico Riparian, Aquatic, and Wetland Restoration Project in the Santa Fe and Carson National Forests. It covers projects that occur in a 100-foot buffer around riparian vegetation, perennial and intermittent streams, wetlands, playas, seeps, springs and a 15-foot buffer around ephemeral streams and may apply to HPWA projects in those areas.. It serves as the basis for the USEPA National Environmental Policy Act (NEPA) documentation required for restoration work planned to facilitate the implementation of the following types of projects:

- Aquatic Organism Passage,
- Instream, Side-Channel and Floodplain Projects,
- Riparian Vegetation Treatments,
- Road and Trail Erosion Control, Relocation, and
- Decommissioning, Groundwater-dependent and Groundwater-recharge Ecosystems.

For projects on National Wildlife Refuges, specifically the Rio Mora National Wildlife Refuge previously completed NEPA review and documentation has been completed that covers river restoration projects on refuge land.

In addition, when appropriate, HPWA works with the US Army Corps of Engineers, EPA, New Mexico Environmental Department, and New Mexico Office of the State Engineer to ensure compliance with all NEPA requirements.

H.1.2. National Historic Preservation Act

Because of the remote nature of HPWA watershed restoration efforts, few historic structures or sites are involved. If one is identified during site selection, HPWA accommodates, by moving the proposed construction site. If awarded this grant, HPWA will work with BOR personnel on any required Section 106 documentation to determine if historic properties are involved, and, should that be found, to determine necessary steps not to endanger historic resources.

D.2.2.5. Required Permits or Approvals

The Hermit's Peak Watershed Alliance has established systems for identifying needed permits and completing any required process in obtaining those permits. While the three Watershed Plans to be included in the project have done preliminary investigation of potential Threatened and Endangered species present, site-specific surveys may be needed. HPWA or contractors will complete those required surveys. Normal permitting requirements include:

- When needed, HPWA works with the US Army Corps of Engineers to obtain required 404 and 401 (Water Quality Certification) permits.
- In some cases, San Miguel County Planning and Zoning Department requires permits depending on the location and nature of a project.

D.2.2.6. Overlap or Duplication of Effort Statement

In the aftermath of the Hermit's Peak/Calf Canyon Fire, there is a great deal of work underway to protect structures and communities from the inevitable flooding which follows such a massive fire in a mountainous area. HPWA is unique to these efforts because the work is completed largely through human labor, using local and natural materials close to water sources. Work completed by agencies such as the US Army Corps of Engineers, state and county work crews, and FEMA sponsored contractors focuses on diverting flood waters to minimize damage to populated areas. Although working in different areas to achieve similar goals, HPWA does work with other efforts to limit duplication of effort and to achieve the best results through coordination and communication.

D.2.2.7. Conflict of Interest Disclosure Statement

HPWA is not aware of any potential conflict of interest related to this application and subsequent projects to be undertaken by HPWA if funded. Should such a conflict of interest be identified, HPWA would advise the BOR program officer immediately and take the steps needed to address that conflict.

D.2.2.8. Uniform Audit Reporting Statement

At present, HPWA does not receive anywhere near the required \$750,000 in federal funding each year to trigger the Uniform Audit Reporting requirements. Despite that, HPWA does have a reporting and accounting system that complies with standard accounting principles for a nonprofit organization and conducts New Mexico required audits.



LETTERS OF SUPPORT

The following letters are attached in support of the Hermit's Peak Watershed Alliance application to the Bureau of Reclamation for the WaterSMART Cooperative Watershed Management Grant Proposal—Phase I (BOR Opportunity No. R23AS00362).

- City of Las Vegas, NM
- Santa Fe National Forest Pecos/Las Vegas Ranger District
- New Mexico Environment Department
- Northern New Mexico National Wildlife Refuge Complex
- Fort Union Ranch
- Trout Springs Ranch
- Libby Smith

Hermit's Peak Watershed Alliance Board of Directors

Resolution supporting WaterSMART Cooperative Watershed Management Application

The Board of Directors of the Hermit's Peak Watershed Alliance (HPWA) officially authorize the submission of a Bureau of Reclamation (BOR) grant application for the WaterSMART Cooperative Watershed Management Phase I program. We see this as being highly valuable for the planning of the expansion of HPWA's efforts, so critical to the region as we strive to manage watersheds damaged by the Hermit's Peak/Calf Canyon Fire.

In addition to supporting submission of the grant application, the Board also commits to the following:

- Ensuring that all grant reporting requirements are met as well as all contractual obligations tied to the BOR grant agreement.
- Complying with administration and supervision of project status.
- Verifying that the Board President and the Executive Director are each authorized to enter into contractual agreements for the organization.

This resolution was approved by a vote of four (4) For, zero (0) Against, and one (1) Abstained on this 19th day of November 2023.

Wendy Melgin-Pierard

Co-Chair

Hermit's Peak Watershed Alliance

Mary Shaw

Co-Chair

Hermit's Peak Watershed Alliance

City of Las Vegas



1700 N. Grand Avenue | Las Vegas, NM 87701 | T 505.454.1401 | lasvegasnm.gov

Mayor David Romero

November 30, 2023

Robin Graber
Bureau of Reclamation Water Resources and Planning
Mail Code: 86-6300
PO Box 25007
Denver, CO 80225

RE: Hermit's Peak Watershed Alliance WaterSMART CWMP Grant Application

Dear Ms. Graber:

While the Hermit's Peak/Calf Canyon Fire approached the edges of Las Vegas, New Mexico, for the most part our city was spared the direct destruction. The greatest long-term threat we face involves the fact that Las Vegas relies on the mountainous watersheds surrounding the community for our water.

"The Gallinas River (a primary source for our water) is going to be broken for years," said one technical advisor during our planning to fund and build facilities able to ensure the people of Las Vegas continue to have clean, potable water.

Even before the fires, the Hermit's Peak Watershed Alliance (HPWA) has worked in the Gallinas Watershed, and they have enhanced efforts since that time because of the post fire flooding that will be a fact of life for a few years to come. The City of Las Vegas has successfully worked with HPWA on three large projects to restore health to the Gallinas River and improve conditions that directly affect our water supply and the vitality of our community.

Since the fire, they improved an important area of the river adding Post Assisted Log (PALS) structures, flood water leadout channels and other structures that are reducing flood damage and sequestering sediment. They have also done considerable nature-based work higher in the watershed to keep sediments out of the river and mitigate flooding impacts across the watershed. Their low-tech structures made with local materials also encourage natural processing of fire contamination, improving the quality of water that flows down-river and eventually becomes our drinking water. Their work is essential and desperately needs to expand to new water sources affected by the fires.

We strongly encourage the Bureau of Reclamation to support HPWA's planning for more watershed restoration in our fire ravaged area.

Sincerely,

Maria Gilyarry Utilities Director

> David Ulibarri Councilor Ward I

Michael Montoya Councilor Ward 2 Barbara Casey Councilor Ward 3 Vacant Councilor Ward 4



United States Department of Agriculture

Forest

Santa Fe National Forest Service Pecos Las Vegas Ranger District

Pecos Las Vegas Ranger District 1926 7th Street Las Vegas, NM 87701

File Code: 2500

> November 29, 2023 Date:

RE: Hermit's Peak Watershed Alliance WaterSMART CWMP grant application

To:

Bureau of Reclamation Water Resources and Planning Mail Code: 86-6300 PO Box 25007 Denver, CO 80225

Dear Ms. Graber:

It's going to be a long haul dealing with the damage created by the Hermit's Peak/Calf Canyon Fires. Yes, we look to the baby steps needed for the long-haul of restoring our forests, but one of the greatest immediate threats involves flooding as mountainsides are no longer able to deal adequately with rainfall and snowmelt.

One of our strongest partners in this effort is the Hermit's Peak Watershed Alliance. This local group has proven their importance to the area over many years, and they are more critical than ever during post-fire recovery. Their ability to use on-site materials and combined paid and volunteer workforce enables them to go to water sources, creating structures where they can do the most good, retaining and deflecting water flow early, doing much to mitigate flooding downstream, especially in populated areas along streams and rivers.

Please, seriously consider HPWA's application for funding to plan expansion of their services within the burn scar.

Sincerely.

Sara Amina

Digitally signed by Sara

Amina Sena

Date: 2023.12.01 16:06:14 Sena -07'00'

Amina Sena

District Ranger, Pecos/Las Vegas Ranger District







November 27, 2023

Robin Graber
Bureau of Reclamation Water Resources and Planning
Mail Code: 86-6300
PO Box 25007
Denver, CO 80225

RE: Hermit's Peak Watershed Alliance WaterSMART CWMP grant application

Dear Ms. Graber:

The New Mexico Environment Department has worked closely with Hermit's Peak Watershed Alliance since 2010 during which time they have produced several Clean Water Act section 319 Watershed Based Plans (WBP), including the Upper Gallinas WBP, the Lower Mora WBP and the Sapello WBP (available online here: https://www.env.nm.gov/surface-water-quality/wbp/), and they have implemented those plans with eight significant on-the-ground Clean Water Act Section 319 funded projects. They have also been the recipient of six, state funded River Stewardship Program awards to improve water quality and riparian habitat. Hermit's Peak Watershed Alliance is well known and respected locally and across New Mexico and is an essential partner in addressing water quality and watershed health issues within the Hermit's Peak-Calf Canyon burn scar. They have proven their ability to develop and implement effective watershed restoration projects. I strongly support their WaterSMART grant application to expand their planning efforts under the Cooperative Watershed Management Program to encourage diverse stakeholders to form local solutions to water management needs.

Sincerely,



Alan Klatt
Implementation & Restoration Team Leader
Surface Water Quality Bureau-Watershed Protection Section
New Mexico Environment Department
(505)-819-9623
alan.klatt@env.nm.gov



United States Department of the Interior



FISH AND WILDLIFE SERVICE

Northern New Mexico National Wildlife Refuge Complex

Las Vegas National Wildlife Refuge Rt. 1 Box 399 Las Vegas, NM 87701 Maxwell National Wildlife Refuge P.O. Box 276 Maxwell, NM 87728

Rio Mora National Wildlife Refuge P.O. Box 27 Watrous, NM 87753

November 27, 2023

Robin Graber
Bureau of Reclamation Water Resources and Planning
Mail Code: 86-6300
PO Box 25007
Denver, CO 80225

RE: Hermit's Peak Watershed Alliance WaterSMART CWMP grant application

Dear Ms. Graber:

Although the Rio Mora National Wildlife Refuge was not directly affected by the Hermit's Peak/Calf Canyon Fire, we have experienced significant river impacts from resultant high flows and sediment delivery. Habitat for Threatened and Endangered Species and many others has been impacted and will be degrading river ecology for many years. We also care deeply about the recovery efforts for the land and the water upstream of us as well as for the people devastated by this fire. The Hermit's Peak Watershed Alliance (HPWA) has been working effectively with us for several years to restore the Rio Mora and its watershed and we hope this partnership can continue.

Those of us at the Refuge can testify to the skills, knowledge, and professionalism of the HPWA. We strongly encourage your serious consideration of their WaterSMART grant application. Both the communities and the wildlands of our region desperately need the help they can provide on the Refuge and beyond.

Sincerely,

ERIC SPADGENSKE Digitally signed by ERIC SPADGENSKE Date: 2023.11.27 10:20:48-07'00'

Eric Spadgenske Project Leader Northern New Mexico National Wildlife Refuge Complex November 30, 2023

Robin Graber
Bureau of Reclamation Water Resources and Planning
Mail Code: 86-6300
PO Box 25007
Denver, CO 80225

RE: Hermit's Peak Watershed Alliance WaterSMART CWMP grant application

Dear Ms. Graber:

This letter offers support for the Hermit's Peak Watershed Alliance's (HPWA) grant proposal to your agency. Our ranch has partnered with HPWA to do many projects both on our land and other areas in the Wolf Creek and Lower Mora Watersheds. Their insightfulness, expertise, professionalism, and partnerships with many other experts have helped restore our vast landscape which has suffered severe legacy degradation.

Ranches such as ours would not be able to realize our vision of a healthier landscape and watershed without assistance from HPWA and many of their partners.

We strongly encourage the Bureau of Reclamation to support HPWA's ability to expand their work to new areas and to do larger projects.

Sincerely,

Josh Miner

Resource Manager, Fort Union Ranch

Charlie Paynter Trout Springs Ranch 945 NM Hwy 65 Montezuma, NM 87731

Bureau of Reclamation
Water Smart
Cooperative Watershed Management Partnership Grant

To whom it may concern,

I am writing on behalf of Trout Springs Ranch in the Gallinas Canyon in support of Lea Knutson and the Hermits Peak Watershed Alliance (HPWA) We have worked with Lea for at least fifteen years. Lea and her team have been instrumental in helping to improve our riparian areas and restore and protect damaged areas affected by the Calf Canyon / Hermits Peak Wildfire.

This last summer HPWA built one rock dams in an arroyo where post fire flooding dumped huge rocks on top of one of our bridges. And most recently Lea contracted Rio Grande Return who along with interns and staff from HPWA installed a series of Beaver Dam Analogues along the Trout Springs Creek where post fire flooding cut stream banks severely. The work is already helping to mitigate further erosion. The Trout Springs is one of the most pristine and prolific aquifers in northern New Mexico and a major contributor to the watershed which supplies Las Vegas.

Also, the work that HPWA completed along the Gallinas River upstream from Trout Springs Ranch next to the Gallinas Canyon Volunteer Fire Dept. reconstructing the flood plain has no question protected one of our access bridges from getting washed out during post fire flooding.

Many of my neighbors have also benefitted from the wonderful work that Lea and her team have done during this difficult time while we all recover from the catastrophic Hermits Peak wildfire.

Please feel free to contact me any time. Kind regards and thanks HPWA! (via telephonic signature)

Charlie Paynter
Family Owner / Manager Trout Springs Ranch
505-469-5910 Cell Phone
charliepaynter5@gmail.com

November 30, 2023

Robin Graber
Bureau of Reclamation Water Resources and Planning
Mail Code: 86-6300
PO Box 25007
Denver, CO 80225

RE: Hermit's Peak Watershed Alliance WaterSMART CWMP grant application

Dear Ms. Graber:

The Hermit's Peak Watershed Alliance (HPWA) has been a valuable resource in the area for years. In the aftermath of the Hermit's Peak/Calf Canyon Fire their rapid, low-tech, nature and community-based approach has been essential to our area's recovery.

HPWA and their well-trained and enthusiastic crew did post-fire restoration on our property. Their work not only helped to prevent excessive erosion but also helped to keep excessive sediments out of our water supply. They worked respectfully and compassionately and also helped to restore our hope that both the land and our communities can recover from the devastation.

Please support HPWA's work to continue doing projects that help our watersheds regain health and continue functioning well into the future.

Sincerely,

Libby Smith & Ganga Daniel (Via electronic signature)

Libby Smith and Ganga Daniel Landowner Manuelitas Creek