Restoring Watershed Function and Protecting Sacred Ancestral Sites on the lower Rio Puerco, a tributary of the Rio Grande - *A collaborative approach to supporting landscape scale ecological restoration of cultural sites on the Isleta Pueblo in central New Mexico*

Applicant:

Pueblo of Isleta
P.O. Box 1270
Isleta, NM 87022

Project Manager:

Clint Lente, Director
Pueblo of Isleta Department of Natural Resources
Clint.Lente@isletapueblo.com
(505) 480-7556
(505) 869-7567

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Restoring Watershed Function and Protecting Sacred Ancestral Sites on the lower Rio Puerco, a tributary of the Rio Grande - *A collaborative approach to supporting landscape scale ecological restoration of cultural sites on the Isleta Pueblo in central New Mexico*

Technical Proposal and Evaluation Criteria

1 Executive Summary

Date: March 28, 2023

Applicant: Pueblo of Isleta. The Pueblo of Isleta is a federally recognized tribe and sovereign Indian Nation whose lands lie in the Middle Rio Grande Basin, totaling over 329 square miles and spanning significant portions of Bernalillo, Valencia, and Torrance counties in New Mexico.

Applicant Categories: Pueblo of Isleta asserts recognition as a Category A applicant as defined in the WaterSMART Environmental Water Resources funding announcement.

Executive summary:

Forming a part of Pueblo of Isleta lands in central New Mexico, the Comanche Ranch comprises over 90,000 acres of public and private lands and is home to upwards of one hundred sacred ancestral sites, including an important cultural site, the Pottery Mound. The ranch forms an integral part of the Rio Puerco lower watershed, the primary source of sediment to the middle Rio Grande and Elephant Butte Reservoir, contributing a disproportionally large percentage of silt and debris to the system. The Pueblo and stakeholders in the region have identified that loss of vegetation and increasingly higher energy monsoonal storms have resulted in erosion and soil loss throughout the uplands in this region and threaten the cultural sites downstream. The Pueblo is requesting funds for its goal to restore natural functions to resilience in the face of growing aridity and increasingly intense monsoonal events on focus subbasins in a watershed of approximately 30,000 acres of the Comanche Ranch and neighboring lands. A plan was collaboratively developed that focuses on revegetation of native species and floodplain reconnection in the uplands. The objectives are to increase vegetation, decrease runoff flow energy and reduce sediment loads into the Rio Puerco, and protect cultural sites from further erosion. Increased infiltration of flood flows, restored habitat, and greater biodiversity will support stated Pueblo goals, including economic and cultural opportunities from increases in game species, additional grasslands for managed grazing, and the restoration of wild medicinal and traditionally gathered edible plants. This work involves collaborations among partners throughout the Pueblo, with state and federal agencies including soil and water conservation districts, and with regional NGOs and restoration professionals. This project will serve as a foundation for further restoration work on the ranch and throughout the Rio Puerco watershed.

Project Timeline: January 1, 2024 – December 31, 2026

Federal Facility: Runoff from the project flows into the Rio Puerco, a tributary of the Rio Grande, at the point of the Bureau of Reclamation's Middle Rio Grande Project. Small portions of this project are on BLM lands.

Partners on the project include: Pueblo of Isleta, Bureau of Reclamation, State Land Office, Bureau of Land Management, Four Daughters Land and Cattle Company, Valencia Soil and Water Conservation District, Alamosa Land Institute, Ancestral Lands Conservation Corps, High Desert Native Plants, Resource Management Services, Rangeland Hands Inc., Hydra Aquatic Inc., Revegetation Agronomists, and NV5 Environmental Consultants

Planning documents that support the project: *Appendix A: Watershed Restoration Design and Implementation Plan*, hereafter called *Appendix A Project Plan* is attached and is the collaboratively developed plan for this project. The *Appendix A Project Plan* integrated components of the following planning documents (as described further in Section 6.2.1.8):

- *Archaeological survey, analysis, and recommendation plan for sacred and ancestral (hereafter called "cultural") sites on the Comanche ranch.*
- *Hydrologic Study and Pottery Mound Watershed Plan 2019*
- *Rio Puerco Watershed Based Plan (WBP) 2017 and Rio Puerco Watershed Restoration Action Strategy (WRAS) 2001*
- *2014 POI Interim Forest Management Plan*
- *POI Bosque Restoration Plan 2019*
- *Ancestral Lands Conservation Corps (ALCC) vision planning*
- *Pueblo of Isleta (POI) Rangeland Health Plan*

2 Project Location

The restoration project area is shown in **Figure 1** below. The project is located predominantly on Pueblo of Isleta lands in Valencia County, approximately 30 miles southwest of Albuquerque, NM. The approximate project latitude is 34º 44' 45" and longitude is 106 º 55' 58".

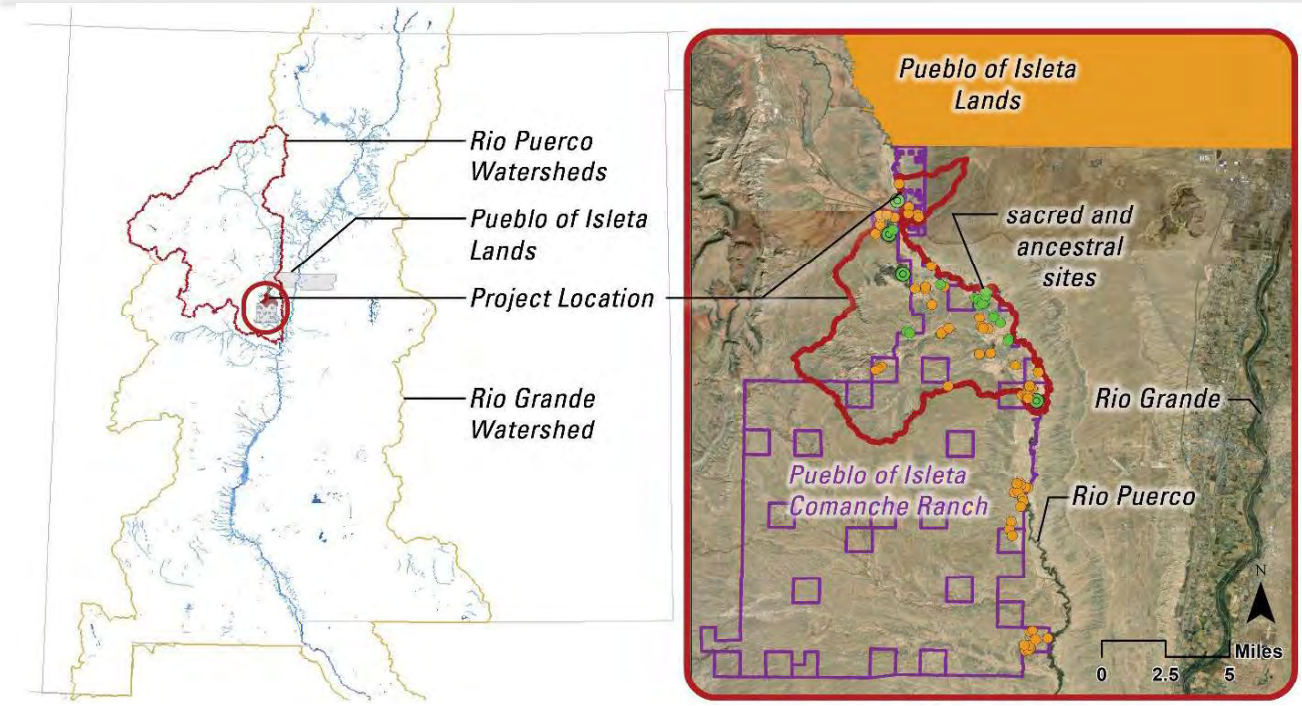

Figure 1. Project location.

3 Technical Project Description

3.1 Goals and Objectives

Project goal. The goal is to restore targeted natural watershed functions in the face of growing aridity and increasingly intense monsoonal events.

Objective 1: Increase watershed resilience to achieve dynamic equilibrium through revegetation using native species and floodplain reconnection.

Objective 2: Decrease runoff flow energy from the uplands resulting in reduction of sediment loads into the Rio Puerco, a tributary of the Rio Grande.

Objective 3: Protect and stabilize cultural sites from further erosion.

3.2 Technical Overall Project Approach

To achieve the project objectives, our approach is to restore watershed natural functions and address the stakeholder-identified priorities. Implementing accepted and proven restoration practices that spread and slow runoff flows will support vegetation growth, which in turn will increase infiltration and support a feedback loop of continued revegetation and flow infiltration (**Figure 2**). As described in the *Appendix A Project Plan* approach, project activities include:

1. Integrate stakeholder-driven existing knowledge and the team's technical expertise, conduct site surveys to identify the final restoration sites, focus on areas upstream from erosion in xeric riparian channels and floodplains. Conduct vegetation surveys to identify base conditions.

2. At pre-implementation workshops on the project scope, the team will collaborate with conservation teams from the Pueblo using mockups of restoration practices to determine the most efficient installation of the practices.
3. Implementation will proceed according to the project schedule in the surveyed areas by the project team and the conservation crews.
4. Post-implementation ground observations of erosion and vegetation response compared to base conditions and remote sensing analysis will quantify the efficacy of the practices to spread and infiltrate flows. Vegetation monitoring will document seed and planting response to the increases in available moisture.
5. Results presented in post-implementation workshops with project stakeholders in years 2 and 3 will inform the Pueblo's future land management planning strategies.

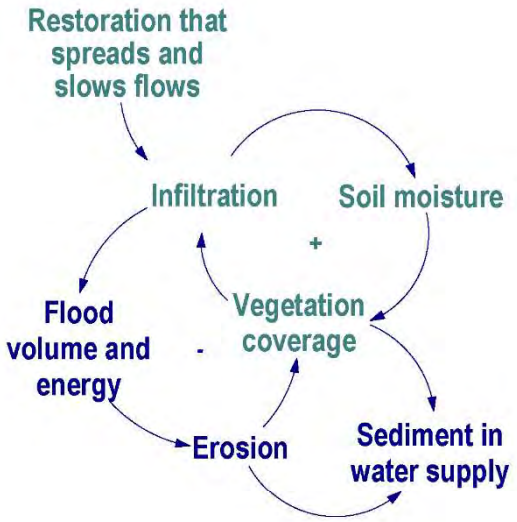

Figure 2. Approach is to implement restoration practices that spread and slow flows to support feedback loops centered around revegetation. As the practices increase the amount of infiltration, soil moisture quantities and retention is increased, which then supports increased vegetation coverage. Increased infiltration also reduces flood volume and energy, which reduces erosion, and sediment in the downstream water supply.

3.3 Technical Approach of Design

Community-based approach. The issues addressed by this project were community-identified. Site visits and collaborative meetings occurred to develop and approve the concept plans. The design approach is based on traditional indigenous methods of water harvesting (Mekdaschi & Liniger, 2013). The design concept has been and will continue to be collaboratively refined and tested prior to implementation (see sections 6.2 and 6.3 for details on stakeholder and community collaboration). The results will be assessed within and across all locations.

Flow dynamics focus. Practices have been fitted to the geomorphology of the landscape and the scale of the flow energy. The zones where restoration practices will be implemented are defined by the drainage/flow paths on the landscape (see attached *Appendix A Project Plan*).

Site selection. Four focus area sub-basins with upland runoff most significantly impacting downstream cultural sites were selected (**Figure 3**).

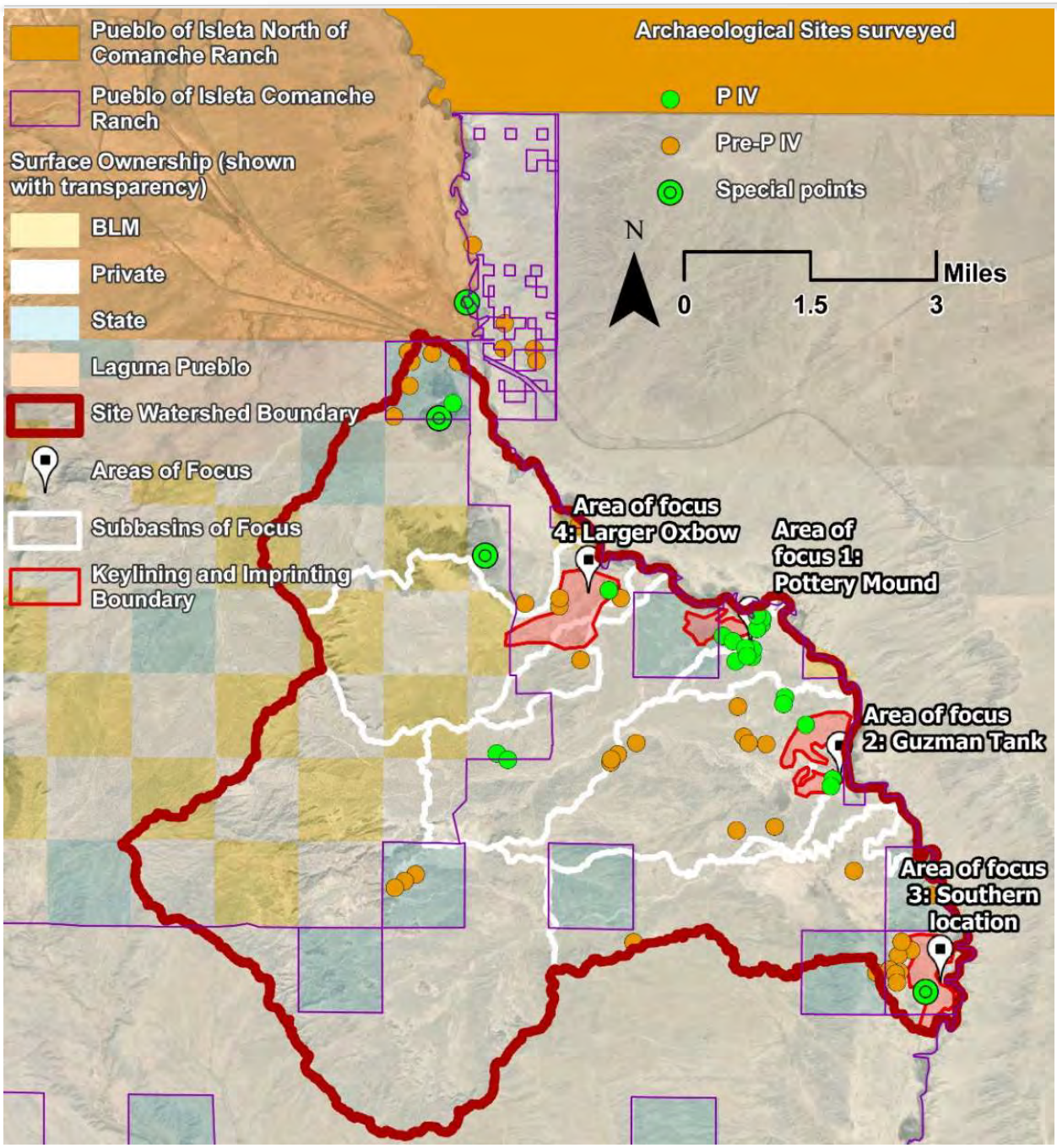

Figure 3. Areas of focus map.

3.4 Technical Approach of Restoration Implementation

Pre-restoration Implementation Surveys, Permits, and Approvals. Site surveys will determine final restoration practice locations, and will include soil and water testing (from a nearby existing well) to make final selections of broadcast seed and plug species best adapted to site conditions and amendments requirements. Site surveying for restoration areas will include staking of Keylining boundaries, contour surveying for stone lines and brush weirs, road/flow intersect

zones as well as location staking for upland small scale interventions including small weirs, one-rock dams and media-lunas (**Figure 4**).

The team then will conduct analysis for conformance of: a) NEPA processes for the Bureau of Land Management (BLM), the State Land Office (SLO), and b) the Pueblo of Isleta (POI), including approvals from the New Mexico State Historic Preservation Office (SHPO), c) an Army Corps of Engineers (ACOE) Nationwide Permit (NWP) 27, and d) the private landowner on the west portion of the watershed, the Four Daughters Land and Cattle Ranch. The NEPA conformance process will include surveys for Biological, Archaeological and Cultural, and Paleontological (Paleontological for BLM lands only). These surveys will establish the vegetation monitoring transects in areas where practices will be installed and provide the base conditions.

Restoration Installation

- *Restoration Phase 1 – Road Restoration.* Regrading and resloping of road crossings that intersect flow will require heaving equipment as outlined in the budget detail, including D6 bulldozer, motor grader and backhoe. The team will conduct onsite training workshops for Pueblo road crews to implement the road restoration throughout the project area and ensure roads will be properly maintained to drain water away from potentially erosive areas.
- *Restoration Phase 2 - Keylining or contour plowing with seed imprinting.* This scope requires a medium duty plow tractor, a specialized Yeoman's plow, an imprinting roller with integrated seed broadcaster and a skilled operator to follow contours visually. Depending on soil conditions mulch and/or amendments may be broadcast concurrently with seeding.
- *Restoration Phase 3 – Restoration Practices.* Contour stone lines and contour brush weirs will be installed along landscape contours to slow, spread, and infiltrate low energy flows trapping seeds and brush and creating enhanced areas for revegetation. The team will conduct onsite workshops to train the conservation crews to install these techniques. Rock will be delivered from a local quarry and deposited in staging areas for delivery via low impact haulers to restoration sites. Brush from local pecan farm pruning operations for brush weirs, will be delivered to staging areas and moved to upland sites.
- *Restoration Phase 4 – Oxbow Work.* Work at the Oxbow of the Pottery Mound involves piles, sediment fence, and Willow and native Cottonwood pole plantings. Saturated soil conditions in the Rio Puerco Riparian areas will require specialized matting to support pile driving equipment and backhoes. Power augurs and side by side equipment attachments will bore holes for native cottonwood and willow poles. Amendments will be determined by soil testing.
- *Restoration Phase 5 – Native shrub and grasses plug and supercell planting at Pottery Mound.* Soil and water surveying along with site vegetation surveys will allow final selection of the species to be planted. These will be grown at a local restoration nursery and planted by the local conservation crews under the direction of the team. Native grass plugs will be installed upstream from the stone lines and native shrub supercells will be planted at the numerous small headcuts where sheet flow falls off into the Rio Puerco floodplain. Mulch and amendments will be added, and temporary irrigation for 2-3 years is required to increase success rates. An existing well near the site will be renovated to

supply water and later converted to support game species and managed grazing requirements.

Integration of Results into Pueblo Plans. Results from post-implementation monitoring will be analyzed collaboratively. Our partners are in support of the watershed-scale approach and are committed to utilizing the results to inform land management, soliciting further stakeholder input, assessing, and maintaining the project, and broadly disseminating the results so others can benefit from the information learned and apply it in watershed restoration throughout the Rio Grande Valley and across NM.

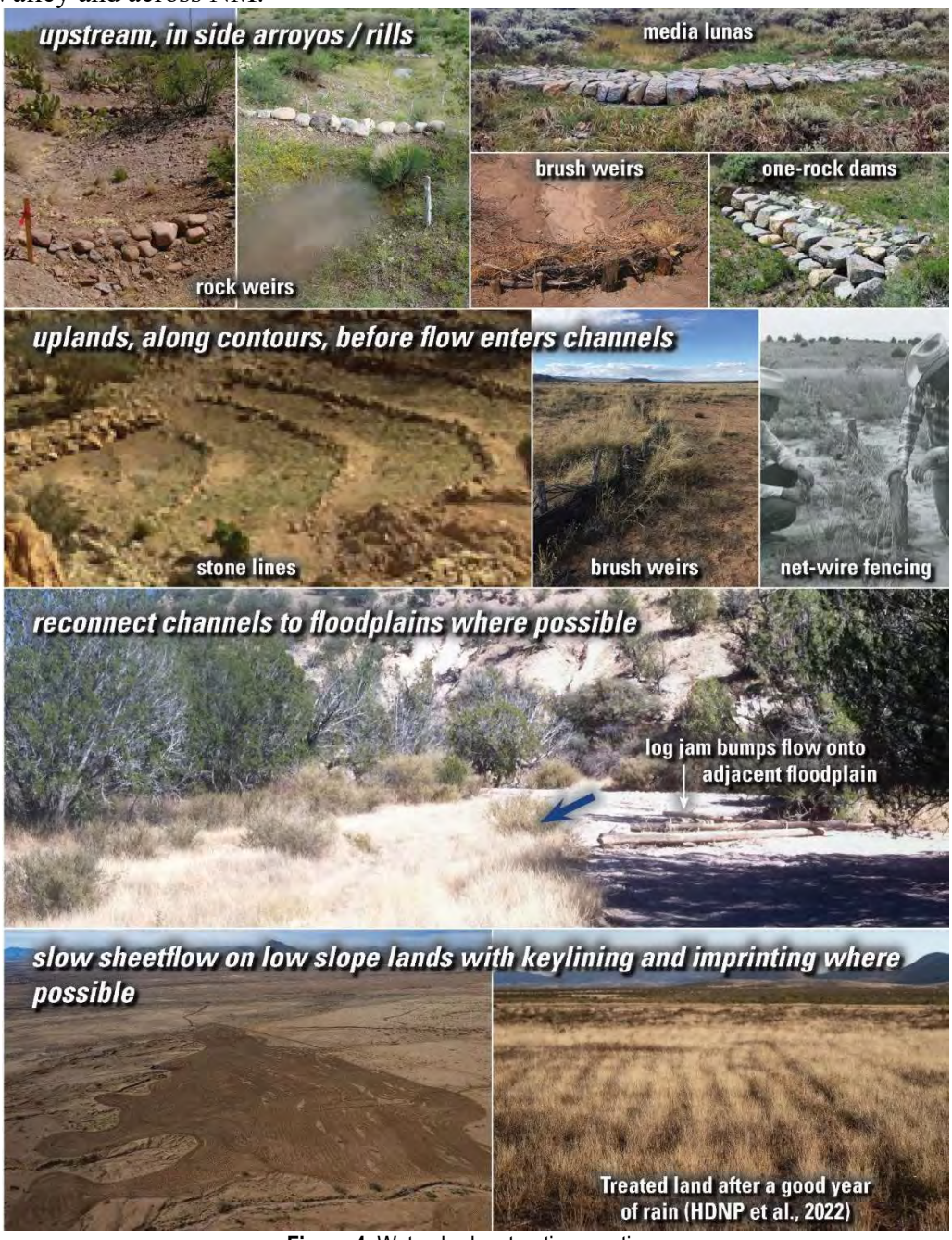

Figure 4. Watershed restoration practices

4 Applicant Category and Eligibility of Applicant

The applicant, the Pueblo of Isleta (POI), is a Category A applicant, as POI is a Tribe.

5 Performance Measures

Restoration of the watershed functions identified in the project goals and objectives including revegetation, extent of connectivity of flow to floodplains, and flow energy are critical drivers for overall watershed health. These functions will then allow the team to assess extent of protection of the cultural sites. Measuring performance of the project's restoration installations in achieving or making progress towards these goals and objectives will be through extensive field monitoring to record both qualitative observations and collect quantitative data, which will then be used to calibrate remote sensing for analysis of the continuous vegetation spatial response. Qualitative assessment protocols as found in "Bullseye! Targeting your rangeland health objectives" (Gadzia & Graham, 2013) will quantify incremental benefits and will assess the overall trend towards health. Quantitative vegetation transects will be established per BLM's AIM method standards (Herrick et al., 2017). See Section 6.5 for a detailed description of the measures associated with the goals and objectives.

6 Evaluation Criteria

6.1 Evaluation Criterion A — Project Benefits (25 points)

6.1.1 Subcriterion A.1: Project Benefits

6.1.1.1 General Project Benefits

6.1.1.1.1 How the project will benefit ecological values that have a nexus to water resources or water resources management

Watershed restoration, including forest and grassland restoration, is critically needed to return this landscape to watershed functional health and key for the production of water for all system needs. Vegetation is the key driver of watershed function in dryland areas as it acts as a sink for runoff on the landscape (Wilcox, Breshears, & Allen, 2003). At areas of bare ground, runoff flows increase in energy and decrease in infiltration, acting as a source for runoff. This is known as the source-sink framework. The restoration approaches utilized in this project will support patches of vegetation and break up flow paths along bare ground or areas of lesser vegetation density, increase infiltration, filter flows for increased water quality, and reduce flood energy, which reduces erosion and decreases sediment transport.

Approximately 14,131 acres of watershed are targeted for restoration as critical areas in the nearly 30,000 acre overall watershed. As many as 900 acres of bare ground will be revegetated and velocities of flow in over 50,000 feet of arroyos will be slowed. A conservative estimate of 20% of runoff is expected to be retained in the watershed which previously drained into the Rio Puerco.

The project includes the development of recommendations for management of water resources for wildlife and managed grazing that result in ecological benefits from rangeland health. See further description in Section 6.2.2.1 of the existing plan analysis in the *Pueblo of Isleta (POI)*

Rangeland Health Plan. For benefits of ecological values to specific species and habitats, see section 6.1.1.1.3.

6.1.1.1.2 Extent of benefits to aquatic or riparian ecosystems within the watershed

The riparian areas require the upstream watershed approach benefits described in the previous section 6.1.1.1.1, and will benefit from mitigated flooding and water quality improvements. As part of the *Appendix A Project Plan* a porous and living ecologic filter will be installed along the banks of the Oxbow directly below the Pottery Mound. This will increase vegetation cover to slow flows, change soil composition and create stability through a reduction in scouring energy during high flows and result in sediment aggradation and aeration of soils. Native Cottonwood and Willow pole plantings together with driven piles and a sediment fence will form the structure of the filter and provide natural habitat for native endangered species including Willow Flycatcher. This installation will provide quantitative data to inform how much restoration will be required throughout the Rio Puerco, as called for in the *Rio Puerco Watershed Based Plan (WBP) 2017 and Rio Puerco Watershed Restoration Action Strategy (WRAS) 2001*, which is further described in section 6.2.2.1.

6.1.1.1.3 Extent of benefit to specific species and habitats

Increasing soil moisture quantities and length of retention will support vegetation in general and increase habitat for a multitude of species. Elk, mule deer, pronghorn, as well as many non-game mammals and birds will benefit from greater vegetation diversity, density, and nutritional values produced through improved watershed management. In addition, the planning for introduction of managed grazing will identify needed future water infrastructure improvements through the addition of wells, pipelines, storage tanks and drinkers, which will greatly improve the ability for wildlife and/or domestic livestock to utilize the vegetation resources. Wildlife as well as livestock require cover, food, and water within their home range or territory. The more dispersed these resources are spatially, the more resilient and diverse the potential for species is.

This Lower Puerco Watershed region, and particularly the subbasins along the Rio Puerco such as the Pottery Mound site, was part of a larger cultural landscape upon which the indigenous peoples of the region depended for game but also for medicinal and edible plant species. The project will conduct workshops and site visits with tribal elders to record indigenous knowledge for the use and collection of these species. Together with tribal youth interns under direction of Ancestral Lands Conservation Corps as well as ethnobotanists, the project team will inventory species, make recommendations for their preservation and restoration to benefit future tribal cultural and economic priorities for the landscape, and gather and disperse seeds per the developed protocol.

6.1.1.1.4 Benefit to federally listed threatened or endangered species

Threatened and endangered (T & E) species were previously identified for the Pottery Mound region in the *Hydrologic Study and Pottery Mound Watershed Plan 2019*, further described in section 6.2.2.1. As part of this project, surveys will be extended to the subbasins of focus. Efforts will be made to identify (T & E) presence or absence on the project site. T & E species throughout the watershed will benefit from increasing watershed resilience to droughts and floods that commonly occur within damaged watersheds. The strategy of increasing vegetation cover is critical for habitat for most of the T & E species.

In the Rio Puerco riparian zone, while salt cedar is an invasive species, it has shown to provide habitat particularly for the endangered species of the Willow Flycatcher, in addition, the vegetation density has mitigated scouring and sediment flow into the Rio Grande (the reason for its original introduction). Regeneration of salt cedar will be under increasing threat from the Tamarisk Beetle that specifically targets salt cedar and its extent has reached the Rio Puerco (Bloodworth). The work in the Oxbow focus area will reintroduce Goodding's and Coyote Willows, natural habitat for the Flycatcher and not subject to beetle threat and will serve as a model for future riparian work in the Rio Puerco.

6.1.1.2 Water Conservation and Efficiency Project Benefits

6.1.1.2.1 How water conserved as a result of the project will be used to increase water sustainability for ecological values

Section 6.1.1.1 describes the main benefits of the practices spreading and slowing flow to result in water conserved for ecological values. These practices do not conflict with Office of the State Engineer (OCE) policies regarding diversion of stream flow. Conservation of water comes primarily from reduced evaporation through increased infiltration by restoring natural watershed functions. No engineered approaches are used for water conservation. Note as well that this project is not impounding water nor addressing in-stream flows, thus no formal mechanism is required.

6.1.1.3 Water Management and Infrastructure Improvements Benefits

6.1.1.3.1 How the project will improve water infrastructure.

Increased infiltration and reduced runoff of precipitation will bolster the natural water infrastructure and increase capacity of springs, seeps and wet areas to retain water for longer periods of time, improving water quality from sediment reduction and erosion mitigation. Restoring natural infrastructure will also support existing and future planned hard infrastructure (e.g., wells). As part of the project, the team will also inventory existing water infrastructure in the project area and document existing beneficial infrastructure such as wells, pipelines, storage tanks, drinkers etc. that would benefit wildlife populations and livestock grazing if utilized as part of the long-term restoration strategy. In addition, historic property sales data will be reviewed for information on locations, production records, and dates of prior water projects to support future installation of additional infrastructure.

6.1.1.4 Restoration Project Benefits

6.1.1.4.1 Invasive Species - Vegetation

Invasive species that can be controlled by active management will be identified, incorporated into the Rangeland Assessment and Management recommendations component of the plan including suggested strategies for sustainable control and long-term management. It should be noted that many invasive species tend to be greatly reduced when rangeland stability and soil health are increased. Unintended consequences of control measures will also be considered e.g. controlling tamarisk but losing the aggrading ability of the channel to rebuild the floodplain.

6.1.2 Subcriterion A.2: Multiple Benefits

6.1.2.1 Benefits to multiple water uses

As detailed in the *Appendix A Project Plan* and described above in Section 6.1.1 the project's benefits to ecological values of improving water quality and reducing sediments loads from the sub watershed focus will also benefit downstream water users of the Rio Puerco and the Rio Grande. The Rio Puerco is a primary source of sediment and debris into the Rio Grande, contributing a disproportionately large percentage of silt and debris to that system, up to 80% (Hennessey, 2017). Additionally, the restoration will provide water uses to protect the Tribe's cultural sites and increase culturally valued vegetation and wildlife species, as described further in the next section.

6.1.2.2 Benefits to multiple restoration objectives

The project plan meets tribal restoration objectives as outlined in *Appendix A Project Plan* and in the sections of 6.2 and 6.3. The project will provide multiple benefits to tribal cultural and ecological values by restoring watershed function and health to the focus areas including:

- Improved opportunities for sustainable game management and hunting
- Improved opportunities for sustainable managed grazing
- Improved habitat and shallow aquifer moisture as key drivers to landscape biodiversity
- Opportunities to preserve and sustain traditional indigenous knowledge for medicinal and food plant species
- Opportunities for indigenous youth participation and gained experience in landscape scale restoration
- Protection from erosion of cultural sites for further research into the narrative of the cultural landscape
- A restored cultural landscape for future pueblo generations to experience and cherish

6.2 Evaluation Criterion B — Collaborative Planning (20 points)

See *Appendix A Project Plan,* which is the plan for this project and all sections are relevant.

6.2.1 Specific Strategy or Planning Document

6.2.1.1 When was the plan or strategy prepared and for what purpose?

Appendix A Project Plan is the plan for this project. The plan incorporates goals and priorities from numerous collaborative planning efforts (see 6.2.2.1) by the Pueblo, State and Federal Agencies, and stakeholder groups. An original version of this plan, entitled *The Hydrologic Study and Pottery Mound Watershed Plan 2019,* was developed for the Pottery Mound subbasin of focus. That plan was adapted and submitted by the Pueblo to Reclamation for 638 funding of partial implementation. That plan was a collaborative effort with hydrological engineers, restoration ecologists, range and watershed specialists working closely with the Pueblo's Natural Resource Department and Tribal Council. This proposal requests funding to extend restoration to the larger cultural landscape through the four subbasin areas of focus (see **Figure 2**).

6.2.1.2 Types of issues are addressed in the plan

As detailed in the *Appendix A Project Plan*, the types of issues that are addressed in the plan are:

- Need for watershed health and function in the lower Rio Puerco Watershed
- Need for ecosystem resilience and stability in a future of increasing aridity
- Water quality and sediment loads in the middle Rio Grande from erosion in the lower Rio Puerco Watershed
- Need for protection and preservation of sacred cultural sites
- Need for increased economic opportunities for tribal priorities from restored watershed health on the Comanche Ranch
- Need for socio-cultural benefits and ecological management capacity development through Ancestral Land Conservation Core collaboration and consensus building with Pueblo youth to survey, install, maintain, and monitor restoration practices on the focus area sub watersheds

6.2.1.3 Purpose specified in the strategy or plan to increase the reliability of a water supply for ecological values

The plan follows our goals and objectives (as included in Section 3.1)

- *Project goal.* The goal is to restore targeted natural watershed functions in the face of growing aridity and increasingly intense monsoonal events.
- *Objective 1:* Increase watershed resilience to achieve dynamic equilibrium through revegetation using native species and floodplain reconnection.
- *Objective 2:* Decrease runoff flow energy from the uplands resulting in reduction of sediment loads into the Rio Puerco, a tributary of the Rio Grande.
- *Objective 3:* Protect and stabilize cultural sites from further erosion.

6.2.2 Strategy or Planning Development Collaborative Process

6.2.2.1 Collaborative group establishing strategy or plan; Stakeholders with diverse interests that developed the plan

The plan was developed through a collaborative process included stakeholders with diverse interests throughout the Pueblo, State and Federal Agencies, stakeholder groups, and regional NGOs and restoration professionals. The plan also incorporated goals and priorities from numerous collaborative planning efforts, as detailed below.

Collaboration surrounding sacred and ancestral sites. When the University of New Mexico Regents gave Pottery Mound to the Pueblo of Isleta in 2012, it was with the promise that the Pueblo would do all it could to protect and preserve the ancestral site. Since then, Isleta has actively searched for solutions and funding sources to study and provide recommendations for preservation of the Pottery Mound and other cultural sites on the Comanche Ranch. In 2015 Isleta received funding from Reclamation as a 98-638 grant, to accomplish as many of the studies necessary to fulfill the requirements for archaeological permitting and environmental analysis of the site.

Archaeological plans. Pottery Mound appeared in scholarly literature as early as 1883, first noted by Adolph Bandelier as a prominent Pueblo ruin (The Southwest Journals of Adolph F. Bandelier, 1883-1884). Excavation of Pottery Mound began in 1954, by Frank Hibben with

the University of New Mexico archaeological summer field school sessions. These field sessions were continued until 1957 and continued again in 1961 and 1962, funded by the National Science Foundation. UNM Archaeologist Linda Cordell followed by another summer field session 1979, at which time her students carefully excavated a small area near the eroding oxbow. Hibben returned during the late 70s and early 80's for what he described as "salvage excavations." Despite the years of site excavations at Pottery Mound, a very limited amount of processing, analyses, and project reporting was produced. Isleta's Department of Cultural and Historic Preservation and Tribal Historic Preservation Officer submitted a request for further research and study opportunities in 2015. The reports produced by this project resulted in a far more complete description of the structural organization, dating and provenance of the voluminous artifactual assemblage, recording of associated cultural landscape, as well as a more comprehensive description of the hydrology, flora communities, and other subjects of importance.

Hydrologic Study and Pottery Mound Watershed Plan 2019. Additional Reclamation funding supported the POI in 2019 to prepare a hydrologic study and produce watershed-based recommendations for the preservation of the culturally significant Pottery Mound site, a part of the larger Comanche ranch. This plan was a collaborative effort with hydrological engineers, restoration ecologists, range and watershed specialists working closely with the Pueblo's Natural Resource Department and Tribal Council. The hydrologic study supported the ground observations and analysis by the ecological team that low energy sheet flows across unstable soils resulting from extreme monsoonal events (and not high energy arroyo flows) were the main threat to the site. Pueblo leadership and its Natural Resource department supported the findings that restoration of watershed function to the uplands and revegetation were key to preservation of the sites. The POI requested and were awarded additional funds from the BOR in 2021 to begin work on the first phase of implementation to stabilize the Pottery Mound through ecological restoration.

Rio Puerco Watershed Based Plan (WBP) 2017 and Rio Puerco Watershed Restoration Action Strategy (WRAS) 2001. Participants in the plan included New Mexico Department of Environment (NMED), Rio Puerco Management Committee (RPMC), US Geological Survey (USGS), Rio Puerco Alliance, Bureau of Land Management (BLM), Soil and Water Conservation Districts. Both the (WBP) and the (WRAS) plans prepared for the Rio Puerco Management Committee (RPMC) addressed water quality and sediment loads from degraded uplands of the Rio Puerco Watershed into the Rio Puerco, the largest tributary of the Middle Rio Grande. Both plans identified restoration of watershed health as essential to control erosion and retain sediment and key to the production of water for all system needs. Both plans supported revegetation of native species and habitat restoration to improve biodiversity. This project plan aligns closely with (WBP) and (WRAS) recommendations.

2020 Pottery Mound Restoration Project. Bureau of Reclamation EA, NEPA document prepared for the proposed restoration installation in the Pottery Mound subbasin of focus, which is broadly applicable to the remainder of these project sites, and will be expanded to cover these areas as part of this proposal.

2014 POI Interim Forest Management Plan. In 2014 with support from and in collaboration with the BIA, POI Natural Resources Department with support from tribal leadership, developed a Forest Management Plan outlining program guidelines for the sustainable management of the over 30,000 acres of forest and woodland. Strategies adopted in this plan that addressed

protection of and sustainable use of tribal land's natural resources were a foundation for the adoption of ecological restoration to protect cultural sites on the Comanche Ranch as outlined in this grant proposal.

POI Bosque Restoration Plan 2019. An ecological based plan for the sustainable management of the Rio Grande Bosque on tribal land, was developed in collaboration among Isleta representatives, Hydrological engineering firms, Reclamation, and the Middle Rio Grande Conservancy District to mitigate sedimentation through floodplain reconnection and habitat restoration. Isleta Natural Resource staff and tribal leadership supported goals and management actions that took a process approach to ecological restoration. Focusing on the natural systems and processes affecting sediment buildup and habitat degradation in the Bosque and devising strategies that work with instead of against these processes is the basis of the proposal for his grant. Acceptance of this approach for the Bosque restoration by tribal leadership formed the basis for addressing Watershed Health as a principal driver for protection of cultural sites on the Comanche Ranch.

Ancestral Lands Conservation Corps (ALCC). ALCC is a nonprofit organization that employs indigenous youth and young adults in conservation programs, centered on indigenous ways of life, that complete projects to protect and conserve natural and cultural resources. ALCC sees this funding proposal strengthening the partnership they currently have with the Pueblo as they work to create a local ALCC office. ALCC crews will work alongside team members to survey, install and monitor the restoration techniques outlined in this proposal. The Pueblo's vision for restoring watershed health and protecting cultural sites for future generations is strongly linked to its collaboration with ALCC and its mission to train and inspire Indigenous youth to, as stated in ALCC's letter of support, "lead our nations back to ecological and cultural well-being".

Pueblo of Isleta (POI) Rangeland Health Plan. Stated goals for the Pueblo's current Rangeland Management Plan and grazing regulations includes restoration of native grasslands, wildlife habitat and forage protection and to maintain and restore ecosystem processes. Moreover the (RMP) sees restoration of deteriorated pueblo lands as aligned with traditionally accepted tribal goals to preserve lands for future generations. The project plan in this proposal aligns itself with these goals which forms the basis for an emphasis on watershed health to reduce erosion and protect cultural sites on the Comanche Ranch.

As a member of this proposal's team, Kirk Gadzia was involved in the development of the current Isleta RMP and is familiar with the elements that might apply to the project. The team will solicit broader input from NGOs to contribute research knowledge on the efficacy of various restoration techniques in this unique environment. As part of the plan, NGOs such as The Quivira Coalition, New Mexico Wildlife Federation, Natural Resource Conservation Service (NRCS) and New Mexico State University (NMSU) personnel will be invited to participate, present, and make recommendations in workshops where the current plan will be presented.

6.2.3 Strategy or Plan Support for Project

6.2.3.1 The proposed project aims to implement a goal or need identified in the plan and how the proposed project is prioritized in the referenced plan or strategy

The plan is specific to this project, see sections 6.2.1.2 and 6.2.1.3 for this content.

6.3 Evaluation Criterion C — Stakeholder Support for Proposed Project (15 points)

6.3.1 Level of stakeholder support for the proposed project

Describe the level of stakeholder support for the proposed project. Following is a list of letters of support submitted with the proposal

- Ancestral Lands Conservation Corp
- New Mexico State Land Office
- Bureau of Land Management
- Mike Mechenbier, Four Daughter's Land and Cattle Company, private landowner
- Valencia Soil and Water Conservation District
- Army Corps of Engineers (USACE)

Ancestral Lands is contributing a 25% match for their conservation work on the project (see budget).

6.3.2 The diversity of stakeholders supporting project

Upon completion of our planned erosion control projects and construction, Isleta's Department of Natural Resources, Tribal Historic Preservation Officer, and POI elders and interns, in consultation with the Pueblo's Administration and Tribal Council, will keep careful watch over Pottery Mound and its cultural landscape. Our oversite will track continued erosion, vandalism, unapproved site visitations, and the unintended encroachment of livestock. It is also clear that the structures and introduced plants intended as protection will require maintenance and repair. A regular schedule of maintenance will be developed to maintain the erosional modifications to this landscape. In addition, several land and water manager agencies support the project, as detailed in the next section.

6.3.3 Project support by entities responsible for the management of land, water, fish and wildlife, recreation, or forestry within the project area

The project is supported by several entities responsible for the management of land, water, fish and wildlife, as detailed following:

- New Mexico State Land Office (NM SLO). POI leases NM SLO-owned parcels of land and supports the team's concept of the restoration, commits to reviewing and providing feedback on the team's plans that would enable their approval for the implementation during the proposed three-year project.
- Bureau of Land Management (BLM). POI leases several small parcels of BLM owned land and larger tracks of leased BLM land are on the upstream privately owned property which lies within the sub watershed focus areas. BLM supports the team's concept of the restoration, commits to reviewing and providing feedback on the team's plans that would enable their approval for the implementation during the proposed three-year project.
- Valencia Soil and Water Conservation District (VSWCD). The project focus areas lie within the VSWCD district boundaries. VSWCD support the concept of restoration of watershed of the lower Rio Puerco and protection of ancestral sites that are sacred to the Pueblo of Isleta.
- Bureau of Reclamation (BoR). Tracey Heller, The BoR Tribal Liaison for the Pueblo supports the goals and objectives of the plan.

- Army Corps of Engineers (USACE). The USACE has committed a feasibility planning project that will include assistance of assessing efficacy of practices from this EWRP project to protect the Pottery Mound site and augment approaches as necessary to the riparian area at the Oxbow of the Pottery Mound and upstream to mitigate high flow energy and sediment transport into the future.

6.3.4 Opposition to the proposed project

We have not encountered any opposition to our plans for this project, either within the Pueblo or anyone outside the Pueblo, with whom we have consulted.

6.4 Evaluation Criterion D — Readiness to Proceed (20 points)

6.4.1 The implementation plan description for the proposed project

See Section 3, the Technical Project Description for a more detailed description of the implementation of the project. The project implementation plan will consist of the following phases as summarized commencing immediately upon finalizing of the award.

- *Design review* – sub-contracts will be finalized and team mobilization will occur. At workshops on the Pueblo and at the site the approved design will be presented for additional input, feedback and observations from agencies and stakeholders. The team will incorporate comments. Detailed sub-milestones and schedules will be established.
- *Pre-restoration Implementation* – required permits and approvals will be finalized. Site surveying of installation sites along with vegetation, NEPA reconnaissance and road restoration sites will take place. Logistics of staging for materials and low impact distribution to sites will be reviewed. Mockups of practices by the team and the conservation core members will gauge collaboration and technique efficiencies.
- *Restoration Implementation* – Installation of practices including road restoration, keylining w/ seed imprinting, contour stone lines and brush weirs and small scale upland practices will be scheduled to avoid adverse weather conditions. The temporary irrigation system will be in place prior to plug and supercell planting and activated immediately upon planting. Work on the living ecologic filter in the Oxbow riparian zone will start. Followup adjustments, cleanup and implementation punch lists will be made in year 3.
- *Post-restoration Implementation* – Ancestral Lands interns will work closely with the team on monitoring and remote sensing data collection. The interns will monitor the temporary irrigations system to insure water is delivered to the plantings sufficient for a 2-3 year survival window.
- *Final reporting and followup* – Results including data gathered, field observations and measurements will be compiled and presented to the Pueblo and agencies for review. A 5year monitoring and assessment of practices program will be coordinated with the USACE.

Continued next page

Milestone / Task / Activity in sequence	Planned Start Date	Planned Completion Date
Project Duration	**January 1, 2024**	**December 31, 2026**
1. Subcontracts and Kick-off Meeting	January 1, 2024	March 1, 2024
1.1 Semi-annual Financial and Interim Performance Reporting	January 1, 2024	December 31, 2026
2.1 Surveys for Project Design	April 1, 2024	June 1, 2024
3.1 Finalize Project Restoration Design	April 1, 2024	July 1, 2024
3.3 Surveys for BLM NEPA requirements • Biological – including base vegetation conditions monitoring • Arch/Cultural • Paleontological	May 1, 2024	August 1, 2024
3.4 Obtain Required Approvals, Clearances, and Permits • POI – approval ○ Collaborative community meeting ○ State Historic Preservation Office (SHPO) – Archaeological Survey and Report approved • BLM & State Land Office (SLO) – NEPA – approval of EA document • USACE – Nationwide Permit - NWP 27 • Private landowners – approval	August 1, 2024	November 1, 2024
4 Installation of Restoration and Monitoring Equipment (before the 2025 and 2026 monsoon seasons)	November 1, 2024	June 1, 2026
4.1 Monitoring and Assessment (completed within 6 months of completion of restoration)	September 1, 2025	December 15, 2026
5.1 Presentation of results to stakeholders	November 1, 2026	December 31, 2026

6.4.2 Budget and budget narrative

See the Proposal Budget Narrative for a full detailing of budget costs and the budget narrative.

6.4.3 Permits and agency approvals, process, and timeframe for obtaining that will be required

Pre-implementation Surveys, Permits, and Approvals. Site surveys will determine final restoration practice locations, and will include soil and water testing (from a nearby existing well) to make final selections of broadcast seed and plug species best adapted to site conditions and amendments requirements. The team then will conduct analysis for conformance of: a) NEPA processes for the Bureau of Land Management (BLM), the State Land Office (SLO), and b) the Pueblo of Isleta (POI), including approvals from the New Mexico State Historic Preservation Office (SHPO), c) a Army Corps of Engineers (USACE) Nationwide Permit (NWP)

27, and d) the private landowner on the west portion of the watershed, the Four Daughters Land and Cattle Ranch. The NEPA conformance process will include surveys for Biological, Archaeological and Cultural, and Paleontological (Paleontological for BLM lands only). These surveys will establish the vegetation monitoring transects in areas where practices will be installed and provide the base conditions. The timeframe (as outlined in section 6.4.1) is as follows:

3.3 Surveys for BLM NEPA requirements • Biological – including base vegetation conditions monitoring • Arch/Cultural • Paleontological	May 1, 2024	August 1, 2024

3.4 Obtain Required Approvals, Clearances, and Permits
• POI – approval
  ○ Collaborative community meeting
  ○ State Historic Preservation Office (SHPO) – Archaeological Survey and Report approved
• BLM & State Land Office (SLO) – NEPA – approval of EA document
• USACE – Nationwide Permit - NWP 27
• Private landowners – approval
	August 1, 2024	November 1, 2024

6.4.4 Engineering or design work performed specifically in support of the proposed project

The *Hydrologic Study and Pottery Mound Watershed Plan 2019* conducted Hydrologic Modeling of the Pottery Mound site to gauge flow path and energy. Ecological planning and design of low impact practices to spread flow, reduce flood energy and mitigate sediment transport were also part of this plan.

6.4.5 Applicant access to the land or water source where the project is located

BLM, SLO and Four Daughter's Land and Cattle have signed letters of support for this project which includes approval processes for access.

6.4.6 Applicant contact with the local Reclamation office to discuss the potential environmental and cultural resource compliance requirements for the project and the associated costs

We have been in consultation with Reclamation personnel through the discussion of our lands and report preparation. We of course, continue to keep in contact with Reclamation throughout the time frame for this project. This will include preparing and maintaining all compliance requirements with the Reclamation's oversite or involvement.

6.4.7 Project complete or partial location on Federal land or at a Federal facility

Runoff from the project flows into the Rio Puerco, a tributary of the Rio Grande, at the point of the Bureau of Reclamation's Middle Rio Grande Project. Small portions of this project are on BLM lands. BLM supports the project and has submitted a letter of support included in this application.

6.5 Evaluation Criterion E — Performance Measures (5 points)

6.5.1 Performance measures descriptions that will be used to quantitatively or qualitatively define actual project benefits upon completion of the project

The performance measures are tied to the project's goals and objectives.

Project goal. The project goal is to restore targeted natural watershed functions and landscape scale resiliency in the face of growing aridity and increasingly catastrophic monsoonal events.

- The functions identified in our objectives, revegetation, extent of connectivity of flow to floodplains, and flow energy are critical drivers for overall watershed health. The goal shall be assessed through measuring incremental benefits towards restoration from our interventions to assess the overall trend towards health.

Objective 1: Increase watershed resilience to achieve dynamic equilibrium through native species revegetation and floodplain reconnection.

The monitoring for this objective is focused upon gauging vegetation response and extent of increased inundation from reconnecting floodplains and spreading sheet flow using the following assessment methods:

- For each intervention, identify expected and desired vegetation response per soil type to establish thresholds for ranking of rapid assessment of rangeland health indicators using photo points and indicator scoring per the protocols in "Bullseye! Targeting your rangeland health objectives" (Gadzia & Graham, 2013)
- Spatial analysis summarized in GIS of the cumulative upstream digitized vegetation response and extent of inundation from floodplain reconnection using visual inspections of flow inundation evidenced by litter lines and vegetation response.
- Vegetation transects (Line Point Intercepts and Gap Canopy) in comparison to base conditions (Herrick et al., 2017)
- At Pottery Mound plug and supercell plantings, additional vegetation survey counts of survival and evidenced vigor.

Objective 2: Decrease runoff flow energy from the uplands resulting in reduction of sediment loads into the Rio Puerco, a tributary of the Rio Grande.

The monitoring for this objective is focused upon assessing erosion and entrenchment using the following methods:

- Identify expected and desired erosion mitigation per soil type to establish thresholds of ranking of rapid assessment of rangeland health indicators using photo points and indicator scoring (Gadzia & Graham, 2013)
- Spatial analysis summarized in GIS identifying the areas of erosion and entrenchment and the cumulative upstream results of the project's erosion mitigation measures through visual inspections and monitoring in comparison to base conditions in addition to

observed indicators of increased infiltration (from increased inundation and vegetation response), and thus reduced water runoff volumes (Gadzia & Graham, 2013)
- Low berm repairs: mark former points of failure, conduct visual inspection for evidence of erosion and breaching

Objective 3: Protect and stabilize cultural sites from further erosion.

The monitoring for this objective is focused upon assessing erosion and entrenchment using the following methods:

- Spatial analysis summarized in GIS of the cumulative upstream results from objective 1 and 2
- Rapid assessment visual inspection of practices installed to protect cultural sites locally for sediment build-up and vegetation response, e.g. upstream from stone lines employing Basil cover, spacing and composition monitoring method. (Gadzia & Graham, 2013)
- Pottery Mound Oxbow: Mark pilings and sediment fence posts at installation establishing datum 2-3 feet above existing floodplain soil level and measure sediment aggradation after 1st monsoon season and Rio Puerco flood flow.

6.5.2 Plan description and details on steps to carry out plans to monitor improved streamflows, aquatic habit, or other expected project benefits over a 5-year period once the project has been completed

As detailed in 6.3.2., upon completion of our planned erosion control projects and construction, Isleta's Department of Natural Resources, Tribal Historic Preservation Officer, and POI elders and interns, in consultation with the Pueblo's Administration and Tribal Council, will keep careful watch over Pottery Mound and its cultural landscape. Our oversite will track continued erosion, vandalism, unapproved site visitations, and the unintended encroachment of livestock. It is also clear that the structures and introduced plants intended as protection will require maintenance and repair. A regular schedule of maintenance will be developed to maintain the erosional modifications to this landscape. In addition, several land and water manager agencies support the project, as detailed in the next section.

Additionally, the team has sought support and funding from US Army Corps of Engineers (USACE) to partner with the Pueblo of Isleta on a project to reduce potential damages to the Pottery mound site that would result from lateral erosion within the Rio Puerco (see letter of support). The efforts will be complementary and not overlap or duplicate the efforts as proposed in this grant application. The USACE will assist in the need for monitoring for a 5-year period through assessing efficacy of practices from this EWRP project to protecting the Pottery Mound site and augment approaches as necessary to the riparian area at the Oxbow of the Pottery Mound and upstream to mitigate high flow energy and sediment transport.

6.6 Evaluation Criterion F — Presidential and DOI Priorities (15 points)

6.6.1 Subcriterion 1: Climate Change, how the project will address and build resilience to climate change

6.6.1.1 How and to what extent the project will build long-term resilience to drought and estimated years the project will continue to provide benefits

This project supports E.O. 14008's emphasis on increasing resilience to the impacts of climate change by building long-term resilience to drought within the Pottery Mound subregional watershed of the Rio Puerco through revegetation of the bluff and upland areas and the Oxbow. Revegetation improves the soil and builds resilience through reducing evapotranspiration losses, reducing sedimentation and erosion, reducing temperatures, and mitigating the impacts of severe storms on the environment. As the watershed has undergone severe desertification and is largely denuded of vegetation, the beneficial impacts within the subregion will be significant. The revegetation will also reduce the impact of flooding, particularly with the Oxbow restoration. Restoration will promote healthy lands and soils by improving soil quality, reducing the tendency for piping, reducing erosion, and improving the nutrient levels in the soils within the Oxbow floodplain. Benefits to watershed health and resilience from installation of the prescribed practices described should continue well into the future with proper maintenance and monitoring as described in the project plan.

Both E.O. 14008 and E.O. 13985 affirm commitments to underserved communities, which includes tribes. This project supports the traditions and cultural values of the Pueblo of Isleta through preservation of the Pottery Mound site. The site is culturally revered among the other Pueblo tribes within New Mexico as well.

In addition, the Department of the Interior has a trust responsibility to protect and preserve tribal resources. The project is not only on trust lands but is of vital cultural significance to the Pueblo of Isleta and other tribes descended from the Ancestral Puebloan culture. In addition to the cultural value, the project improves rangeland resources within the watershed as well as reducing surface water impacts to the Rio Puerco.

6.6.1.2 The proposed project other (than drought) natural hazard risk reductions such as wildfires or floods

As detailed in the *Appendix A Project Plan* and outlined in previous sections of this proposal, the project employs low impact practices for slowing, spreading and infiltrating flow providing opportunities for increases in vegetation resulting in flood and sediment transport mitigation.

6.6.1.3 The proposed project's reduction to greenhouse gas emissions by sequestering carbon in soils, grasses, trees, and other vegetation.

Research shows that healthy rangeland sequesters more carbon than degraded areas of similar ecosystems (Booker, Huntsinger, Bartolome, Sayre, & Stewart, 2013; Derner & Schuman, 2007; Follett & Reed, 2010; Follett & Schuman, 2005). This advantage is obtained because of deeper root systems, more diverse root systems, and the accompanying relationships with soil organisms. The ability for plants to sequester carbon in their roots depends on the amount of vegetation above ground to capture sunlight energy. In semi-desert environments, water is typically the most limiting factor for vegetation growth. Any increase in water infiltration and reduced runoff will in turn increase the ability of plants to increase productivity.

6.6.1.4 The proposed project's reduction or mitigation of climate pollutions such as air or water pollution

As detailed in section 6.1.1.1.1, significant filtering of water from increased vegetation will increase water quality, reducing sediment and nutrient loads. The increased vegetation will reduce airborne pollutants from bare soil.

6.6.1.5 The proposed project's conservation or management component that will promote healthy lands and soils or serve to protect water supplies and its associated uses

The benefits are detailed in the *Appendix A Project Plan* and outlined in previous sections of this proposal.

6.6.2 Subcriterion 2: Disadvantaged or Underserved Communities

This project serves a community that qualifies as both disadvantaged under Section 6001(2) of the Cooperative Watershed Management Act and as underserved pursuant to U.S. Executive Order No. 13985.

The Pueblo of Isleta meets the definition of a disadvantaged community under the Cooperative Watershed Management Act because it is a community with an annual median household income that is less than 100% of the Statewide annual median household income for New Mexico. The U.S. Census gathers median income information through its 5-year American Community Survey, including for AIAN populations. According to the 2017-2021 ACS, the median household income for the Pueblo of Isleta was $47,857 while the statewide median household income was $54,020.

The Pueblo of Isleta also meets the definition of an undeserved community under U.S. Executive Order No. 13985 as the community is comprised primarily of AIAN enrolled as Tribal Members, a demographic that is broadly recognized as having been systematically denied a full opportunity to participate in aspects of economic, social, and civic life in the United States.

6.6.3 Subcriterion 3: Tribal Benefits

6.6.3.1 The proposed project will directly serve and/or benefit a Tribe and will the project improve water management for an Indian Tribe and support Tribal resilience to climate change and drought impacts or provide other Tribal benefits

The project plan meets tribal restoration objectives as outlined in *Appendix A Project Plan* and in the sections of 6.2 and 6.3. The project will provide multiple benefits to tribal cultural and ecological values by restoring watershed function and health to the focus areas including:

- Improved opportunities for sustainable game management and hunting
- Improved opportunities for sustainable managed grazing
- Improved habitat and shallow aquifer moisture as key drivers to landscape biodiversity
- Opportunities to preserve and sustain traditional indigenous knowledge for medicinal and food plant species
- Opportunities for indigenous youth participation and gained experience in landscape scale restoration

- Protection from erosion of cultural sites for further research into the narrative of the cultural landscape
- A restored cultural landscape for future pueblo generations to experience and cherish

Additional benefits include collaboration with Ancestral Lands Conservation Corps

Ancestral Lands Conservation Corps (ALCC), as team member and stakeholder in this project provides multiple additional tribal benefits in addition to those outlined in previous sections of this proposal.

ALCC engages future young Indigenous leaders in completing natural and cultural resource projects in partnership with public land managers. The cultural reconnection, mentorship, and outdoor recreation combine into a rewarding experience for youth and young adults that provide skills that enable participants to create change in themselves, their environments, and their communities for years to come.

Indigenous young people who participate in an ALCC program gain unparalleled hands-on experience in outdoor and conservation services as well as industry recognized certifications and trainings that better prepare them for future success. Participants who complete their terms also earn education awards to be used toward future education costs or repaying student loans. The expanded mental health services provided by a partnership with Albuquerque Community Foundation will ensure that youth and young adults are fully supported and more likely to complete their terms to earn those benefits as well as develop networks to continue their personal and career growth.

ALCC's in-community programs provide access to services linked to health and well-being such as outdoor activities, supporting personal agency, and economic support through paid opportunities. With fostered personal growth, team building, leadership skills, and resiliency that members retain long after completing their service projects, holistically supported program participants will help raise the health, education, and robustness of their communities for generations to come.

6.6.3.2 The proposed project will support Reclamation's Tribal trust responsibilities or a Reclamation activity with a Tribe

The Department of the Interior has a trust responsibility to protect and preserve tribal resources. The project is not only on trust lands but is of vital cultural significance to the Pueblo of Isleta and other tribes descended from the Ancestral Puebloan culture. In addition to the cultural value, the project improves rangeland resources within the watershed as well as reducing surface water impacts to the Rio Puerco.

As the Rio Puerco is a tributary to the Rio Grande, at the point of Reclamation's "Middle Rio Grande Project", and Reclamation in its responsibility to control sedimentation and flooding in the Rio Grande, this project provides the opportunity to partner with the Pueblo. While funding this project serves Reclamation's responsibilities, that the applicant and project lead is the tribe who will maintain its jurisdiction and control over the project is a large factor in assuring the protection of the tribal assets. The Pueblo goals are in alignment with Reclamation's responsibilities.

Reclamation has acknowledged this responsibility in the EA document attached in the *Recommended Documents File*, section A, as follows: "Under this policy, as well as Reclamation's ITA policy, Reclamation is committed to carrying out its activities in a manner that avoids adverse impacts to ITAs when possible, and to mitigate or compensate for such impacts when it cannot. All impacts to ITAs, even those considered nonsignificant, must discussed in the trust analysis in NEPA compliance documents and appropriate compensation or mitigation must be implemented."

7. References

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Appendix A: Watershed Restoration Design and Implementation Plan, herein called Appendix A Project Plan

See attached separately to the application.

A) Environmental and cultural resources compliance

The bulleted questions from the NOFO Section H.1 "Environmental and Cultural Resource Considerations" and Section H.2. "Endangered Species Act" in this section.are copied from the NOFO and indicated as "Bullet X".

A draft of an EA document has been created for NEPA compliance for the proposed restoration installation in the Pottery Mound subbasin of focus, which is broadly applicable to the remainder of these project sites, and will be expanded to cover these areas. Find below excerpts from this document to answer the questions and indicated as "(section from draft EA)".

The following draft NEPA section excerpts answer a number of the bulleted questions, which are included here.

Bullet 1) Will the proposed project impact the surrounding environment (e.g., soil [dust], air, water [quality and quantity], animal habitat)?

Briefly describe all earth-disturbing work and any work that will affect the air, water, or animal habitat in the project area. Explain the impacts of such work on the surrounding environment and any steps that could be taken to minimize the impacts.

Bullet 3) Are there wetlands or other surface waters inside the project boundaries that potentially fall under CWA jurisdiction as "Waters of the United States"? If so, describe and estimate any impacts the proposed project may have.

Bullet 4) When was the water delivery system constructed?

Note additional to the draft NEPA document following: The downstream Middle Rio Grande and Lower Rio Grande projects including the Elephant Butte Dam was developed in the 1910s.

Bullet 5) Will the proposed project result in any modification of, or effects to, individual features of an irrigation system (e.g., headgates, canals, or flumes)?

Note additional to the draft NEPA document following: The proposed project will not result in any modifications to an irrigation system for agriculture. A well permitted for range use will be restored and a small sprinkler system will serve a small area of plantings for ecological benefit.

Bullet 10) Will the proposed project contribute to the introduction, continued existence, or spread of noxious weeds or non-native invasive species known to occur in the area?

(section from draft EA abstract)

The Bureau of Reclamation (Reclamation) prepared this Pottery Mound Restoration Project, Environmental Assessment to assess the potential consequences of implementing restoration

activities at the Pottery Mound Archaeological Site. Reclamation's proposed alternative, described in Chapter 2 of this EA, consists of site restoration activities including construction of contour stone lines, placement of biodegradable straw tubes, construction of one rock dams in channels, revegetation of exposed areas, sediment fences, and existing road and berm repair. The contour stone lines would be placed in a 3-inch deep, 16-inch wide depression along a contour line. … The contour stone lines would be placed across the land surface south and west of the site. The contour stone lines … capture sediment and reduce soil erosion and loss. To raise channel bed elevation and control or modify the slope gradient, one rock dams would be constructed. A single layer of large rocks would be placed from edge-to-edge of a drainage. The dams would be place in channels east and west of the site. Sod-forming grasses and shrubs with spreading roots would be planted to keep soil in place and minimize sediment transport. Recommended plants include alkali sakaton, galleta grass, fourwing saltbush, and pale wolfberry. Sediment fences would be placed along the southwest side of the oxbow. The sediment fences are permeable fences that promotes sediment deposition and direct flows from away from the oxbow. The existing road and berm will be repaired to redirect storm water flows and reduce the erosive effects of these flows. Chapter 2 of this EA describes other alternatives that were considered but eliminated from further study based on effectiveness, feasibility, and cost.

The EA has been prepared in compliance with the National Environmental Policy Act and Reclamation procedures, and is intended to serve environmental review and consultation requirements pursuant to Executive Order 11988 (Floodplain Management), Executive Order 11990 (Wetlands Protection), Executive Order 12898 (Environmental Justice), the National Historic Preservation Act (section 106), Endangered Species Act (section 7(c)), and Departmental and Reclamation Indian Trust Asset policies.

…

(section from draft EA) 3.3 Description of Relevant Affected Issues and Resources

The following is a full description of the relevant affected issues and resources that potentially could be impacted through this project.

(section from draft EA) 3.3.1 Soils and Geology

…When infiltration rates are low, water from rain events flows across the land surface and creates erosion. The NRCS erosion risks do not reflect the amount of erosion observed at the site. The water erosion risk rating is 0.37 based on a scale from 0.02 to 0.69 with the higher values representing greater water erosion risk. The wind erodibility group is 4L based on a scale from 1 to 8 with the lower values representing greater water erosion risk. These are moderate risk levels and do not explain the degree of erosion apparent at Pottery Mound. The clay layer may be slowing erosion. Both soil map units are classified as Not Prime Farmland.

(section from draft EA) 3.3.1.1 No Action Alternative

Current geologic and soil trends would continue. The landscape would be unstable in portions of the project area, such as the embankment/bluff bordering the oxbow. Erosion across the site would form depressions in some area. The changing landscape would put portions of the Pottery Mound Archaeological Site at risk. Site features would be lost to erosion. Piping and erosion

would continue at the embankment/bluff next to the oxbow. The area of impervious clay surface would increase. Soil fertility would continue to decrease.

(section from draft EA) 3.3.1.2 Proposed Action Alternative

Proposed improvements would stabilize the landscape. The contour stone lines and biodegradable straw tubes would capture sediment and reduce soil erosion and loss. As material is captured, it would contribute to soil formation. Organic matter content would gradually increase, resulting in improved soil fertility. The one rock dams would reduce erosion in the drainages. Revegetation would reduce open areas and create a vegetative cover that would further reduce soil erosion. The sediment fences would promote sediment deposition in the oxbow. The road and berm repair would redirect and disperse storm water flow upstream of the site and reduce the erosive effects of storm water flows.

(section from draft EA) 3.3.2 Water

The Rio Puerco is an ephemeral arroyo that drains a 7,000-square mile watershed (see Figure 3.7). Prior to European settlement of New Mexico, the Rio Puerco consisted of a main channel in a broad floodplain. Starting in the 1880s, livestock grazing increased, resulting in overgrazing and reduction of the vegetation cover. Flooding across overgrazed lands increased Rio Puerco sediment loads, resulting in arroyo degradation. Vertical embankments along the arroyo are 20 to 30 feet high. Flood flows can reach 30,000 cubic feet per second (cfs) with water depths up to 16 feet. During parts of the 20th Century, arroyo flows cut the stream bank towards the Pottery Mound Archaeological Site, and an oxbow developed. In 1981, the US Army Corps of Engineers (USACE) constructed a levee and installed Jetty Jacks to direct water flows away from the site. The Jetty Jacks collected sediment, and only the tops of Jetty Jacks are visible. In addition, salt cedar plants growing along the Rio Puerco have reduced arroyo cutting. The oxbow at the toe of the escarpment/bluff slope is lower in elevation than the Rio Puerco main channel. The drainage basin affecting the Pottery Mound Archaeological Site covers 28.6 square miles with nine subbasins (see Figure 3.8).

Figure 3.7 Rio Puerco and adjoining lands

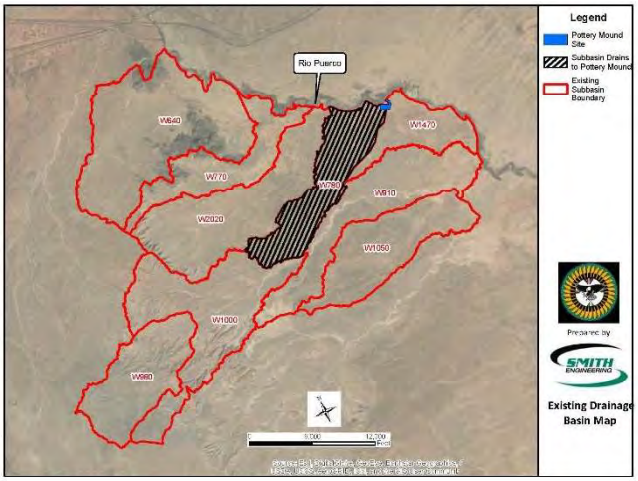

Figure 3.8 Drainage Basins

(section from draft EA) 3.3.2.1 No Action Alternative

Under the No Action Alternative, storm water would continue to flow across the site as sheet flows and contribute to deterioration of channels. Surface water quality would continue to deteriorate. Sediment would be carried in water flows into the Rio Puerco. Water erosion rates would continue to increase.

(section from draft EA) 3.3.2.2 Proposed Action Alternative

The proposed restoration activities would improve water management at the Pottery Mound Archaeological Site. Storm water flows would be better managed. Water flows would be intercepted and captured with the biodegradable straw tubes and contour stone lines. The one rock dams would slow water flow in channels. Over time, water flows would gradually fill in rock voids with fine sediment particles, which would strength the rock dam structure and promote vegetation growth. Revegetation would reduce evaporation and increase water infiltration. The road repair would block water flowing down the road and direct flows to lead out ditches to carry water across the landscape and away from the road. Berm repair would eliminate breaching, stop concentrated flows, and prevent arroyo downcutting. The sediment fences would direct water flows away from the oxbow edge. BMPs would be implemented during construction to limit erosion of exposed areas with temporary erosion control measures and reduce dust through limiting exposed areas and periodic watering of construction areas as needed. Less sediment would be carried into the Rio Puerco, which would benefit water quality.

(section from draft EA) 3.3.3 Vegetation

Vegetation in areas surrounding Pottery Mound Archaeological Site consists of desert grassland. This vegetation is dominated by grama (*Bouteloua* spp.) grasses in association with other grasses and forbs. Desert grassland vegetation is heavily influenced by livestock grazing. Shrub-Alkali Sacaton series vegetation occurs at the site. Four-wing saltbush (*Atriplex canescens*), a shrub, is the dominant plant species. Other plant species present include mound saltbush (*Atriplex obovata*), Indian rush pea (*Hoffmannseggia glauca*), bitterweed (*Hymenoxys* sp.), and caigre dock (*Rumex hymenosepalus*). There is little vegetation growing on the Pottery Mound Archaeological Site. Many areas have less than 20 percent cover, and much of the site has no vegetation cover. Drought and poor soil conditions make it difficult for vegetation establishment on the site. …

(section from draft EA) 3.3.3.1 No Action Alternative

Without any restoration, vegetation cover would continue to decrease under the No Action Alternative. A few isolated patches of vegetation may survive. Most of the ground surface at the Potter Mound Archaeological Site would become bare ground. The impervious clay layer would make it difficult for vegetation to become established.

(section from draft EA) 3.3.3.2 Proposed Action Alternative

Vegetation would growth would increase, especially along edges of contour stone lines and biodegradable straw tubes under the Proposed Action Alternative. The stone lines and straw tubes would collect organic matter and promote vegetation growth. Increasing vegetation cover is essential to stabilizing and preserving the Pottery Mound Archaeological Site. During the first years, a large proportion of plants are expected to be annuals. Over time, perennial vegetation growth would occur. Increased vegetation growth would increase the amount of organic matter.

Increased root growth would improve soil development and increase infiltration. Precipitation amounts would influence vegetation growth. If drought conditions occur, vegetation growth would be limited until a normal precipitation year occurs.

(section from draft EA) 3.3.4 Wildlife

The lack of vegetation results in poor quality habitat that limits wildlife populations and diversity at the Pottery Mound Archaeological Site. Common species include desert cottontail (*Sylvilagus audubonii*), black-tailed jackrabbit (*Lepus californicus*), coyote (*Canis latrans*), and a variety of small mammals such as deer mice (*Peromyscus maniculatus*). Common bird species include Say's phoebe (*Sayornis saya*), mourning dove (*Zenaida macroura*), white-crowned sparrow (*Zonotrichia leucophrys*), western kingbird (*Tyrannus verticalis*), common raven (*Corvus corax*), and turkey vulture (*Cathartes aura*). Low vegetation cover limits the attractiveness of the site to wildlife.

(section from draft EA) 3.3.4.1 No Action Alternative

Under the No Action Alternative, wildlife habitat would continue to deteriorate. The lack of vegetation would make habitat unavailable to many reptile, bird, and mammal species. The hard clay soil surface would discourage the presence of burrowing animals. Lack of vegetation in the oxbow area would make the area unsuited to most reptile, bird, and mammal species. Sediment in runoff from the site would impact water quality in the Rio Puerco, and negatively impact aquatic invertebrates that occur in the river.

(section from draft EA) 3.3.4.2 Proposed Action Alternative

Restoration activities would benefit wildlife. Increased vegetation cover would benefit small mammals and reptiles. Improved soil conditions would provide habitat for burrowing mammals. Increased plant growth would provide food sources for reptiles, birds, and mammals. Microhabitats would be available along the biodegradable straw tubes and contour stone lines.

Bullet 2) Are you aware of any species listed or proposed to be listed as a Federal threatened or endangered species or designated critical habitat in the project area? If so, would they be affected by any activities associated with the proposed project?

(section from draft EA) 3.3.5 Protected Species

… Two species protected species potentially occur in habitats at the project area. These are southwestern willow flycatcher and yellow-billed cuckoo.

The southwestern willow flycatcher is protected as an endangered species by the USFWS and the State of New Mexico. It occurs in cottonwood-willow riparian habitats. Designated critical habitat occurs along the Rio Grande. No suitable flycatcher nesting habitat would be removed by project activities.

The yellow-billed cuckoo is a federal threatened species with proposed critical habitat along the Rio Grande. This species is usually found in lowland deciduous woodlands, willow and alder thickets, second growth woods, deserted farmlands, and orchards. No suitable nesting habitat occurs in the project area, and no potential suitable migration habitat would be removed by project activities.

The New Mexico meadow jumping mouse is a proposed endangered species with proposed critical habitat and a state endangered species. In New Mexico, the New Mexico meadow jumping mouse occurs within dense wetland/meadow and shrub/scrub vegetation along riparian corridors associated with permanent and semi-permanent waterways to a maximum elevation of approximately 8,000 feet. If vegetation cover improved substantially, suitable habitat could develop in areas near the Rio Puerco.

(section from draft EA) 3.3.5.1 No Action Alternative

The No Action Alternative would have no effect on protected species. Sediment carried from the Pottery Mound Archaeological Site to the Rio Puerco would further deteriorate habitat and keep habitat unsuitable for the southwestern willow flycatcher, yellow-billed cuckoo, and New Mexico meadow jumping mouse.

(section from draft EA) 3.3.5.2 Proposed Action Alternative

Restoration activities would have no effect on protected species since suitable habitat for protected species is not present. In the long-term, reduced sediment from the site may result in improved growth of woody vegetation along the Rio Puerco that could provide habitat for southwestern willow flycatcher and yellow-billed cuckoo. If reduced sediment from the site resulted in improved riparian meadow vegetation along the Rio Puerco, suitable habitat for New Mexico Meadow jumping mouse could develop over time.

Bullet 6) Are any buildings, structures, or features in the irrigation district listed or eligible for listing on the National Register of Historic Places? *and* Are there any known archeological sites in the proposed project area?

Note additional to the draft NEPA document following: Yes, there are several archaeological sites in the proposed project area, and one of the objectives is to restore watershed health to protect the sites.

(section from draft EA) 3.3.6 Cultural Resources

…The Pottery Mound Archaeological Site, LA 416, is an important cultural resource site (Marshall, 2019). Sheet runoff and erosion threaten the site. The absence of effective land management practices and drought have reduced the vegetation cover. With little vegetation cover, runoff and erosion will continue to deteriorate the site.

The site was a large village on the western bank of the Rio Puerco. The pueblo's primary occupation occurred between approximately AD 1300 and 1600. Although the University of New Mexico excavations resulted in many structures being exposed, significant portions of the site remain unexcavated.

…The Pottery Mound Archaeological Site holds a unique place in the Pueblo world and remains an extremely important place to the Pueblo peoples today. From the Pueblo of lsleta's perspective, its protection, preservation, and continued existence are critically important.

3.3.6.1 No Action Alternative

The Pottery Mound Archaeological Site features would be at continued risk of deterioration if no actions are implemented. Vegetation cover that could protect the site would decrease. Overland sheet flow erosion would deteriorate the site during high rainfall events. The existing roads and berms channel upland sheet flows towards several existing head cuts. The additional sheet flows

could breach into the Pottery Mound Archaeological Site. Sheet flow draining over the edge of the embankment creates piping. Unstable subsurface conditions occur would below the embankment/bluff, which can result in piping and landscape collapse and result in further site damage.

3.3.6.2 Proposed Action Alternative

Restoration activities would benefit cultural resources. Restoration would reduce soil erosion that is deteriorating the Pottery Mound Archaeological Site. Vegetation cover would increase and protect site features. Reduction of soil erosion rates would maintain site integrity. Reducing erosion on the Rio Puerco embankment/bluff edge would prevent piping and landscape collapse that would also protect site integrity.

Bullet 8) Will the proposed project have a disproportionately high and adverse effect on low income or minority populations?

(section from draft EA) 3.3.8.1 No Action Alternative

The No Action Alternative would have little effect on socioeconomics. Current population levels, population growth, demographic characteristics, and economic sectors in Valencia County would not be affected. No jobs would be lost or created. Failure to protect of the Pottery Mound

(section from draft EA) 3.3.8.2 Proposed Action Alternative

The Proposed Action Alternative would have little effect on socioeconomics. Current population levels, population growth, demographic characteristics, and economic sectors in Valencia County would not be affected. No jobs would be lost by protecting the Pottery Mound Site. A few short-term jobs would be created during construction of restoration measures.

Bullet 9) Will the proposed project limit access to, and ceremonial use of, Indian sacred sites or result in other impacts on Tribal lands?

(section from draft EA) 3.3.7.1 No Action Alternative

The No Action Alternative would negatively affect this ITA consisting of land at the Pottery Mound Archaeological Site. Current geologic and soil trends would continue. The landscape would be unstable in portions of the site, such as the embankment/bluff bordering the oxbow. Erosion across the site would form depressions in some area. The changing landscape would put portions of the Pottery Mound Archaeological Site at risk. Piping and erosion would continue at the embankment/bluff next to the oxbow. The area of impervious clay surface would increase. Soil fertility would continue to decrease. The Pottery Mound Archaeological Site features would be at continued risk of deterioration. Vegetation cover that could protect the site would decrease. Overland sheet flow erosion would deteriorate the site during high rainfall events.

(section from draft EA) 3.3.7.2 Proposed Action Alternative

The Proposed Action Alternative would benefit this ITA consisting of land at the Pottery Mound Archaeological Site. Proposed improvements would stabilize the landscape. The contour stone lines and biodegradable straw tubes would capture sediment and reduce soil erosion and loss. As material is captured, it would contribute to soil formation. Organic matter content would gradually increase, resulting in improved soil fertility. The one rock dams would reduce erosion in the drainages. Revegetation would reduce open areas and create a vegetative cover that would further reduce soil erosion. The road and berm repair would redirect and disperse storm water flow upstream of the site and reduce the erosive effects of storm water flows. Vegetation cover

would increase and protect site features. Reduction of soil erosion rates would maintain site integrity.

B) Required Permits or Approvals

This section is identical to the Project Narrative Section 6.4.3

Pre-implementation Surveys, Permits, and Approvals. Site surveys will determine final restoration practice locations, and will include soil and water testing (from a nearby existing well) to make final selections of broadcast seed and plug species best adapted to site conditions and amendments requirements. The team then will conduct analysis for conformance of: a) NEPA processes for the Bureau of Land Management (BLM), the State Land Office (SLO), and b) the Pueblo of Isleta (POI), including approvals from the New Mexico State Historic Preservation Office (SHPO), c) a Army Corps of Engineers (ACOE) Nationwide Permit (NWP) 27, and d) the private landowner on the west portion of the watershed, the Four Daughters Land and Cattle Ranch. The NEPA conformance process will include surveys for Biological, Archaeological and Cultural, and Paleontological (Paleontological for BLM lands only). These surveys will establish the vegetation monitoring transects in areas where practices will be installed and provide the base conditions.

3.3 Surveys for BLM NEPA requirements • Biological – including base vegetation conditions monitoring • Arch/Cultural • Paleontological	May 1, 2024	August 1, 2024

3.4 Obtain Required Approvals, Clearances, and Permits
• POI – approval
  ○ Collaborative community meeting
  ○ State Historic Preservation Office (SHPO) – Archaeological Survey and Report approved
• BLM & State Land Office (SLO) – NEPA – approval of EA document
• USACE – Nationwide Permit - NWP 27
• Private landowners – approval
	August 1, 2024	November 1, 2024

C) Overlap or Duplication of Effort Statement

No overlap exists between the proposed project and any other active or anticipated proposals or projects in terms of activities, costs, or commitment of key personnel.

The proposal submitted for consideration under this program does not in any way duplicate any proposal or project that has been, or will be, submitted for funding consideration to any other potential funding source—whether it be Federal or non-Federal.

Note that USACE (see letter of support) will be providing partnership on this project to reduce potential damages to the Pottery mound site that would result from lateral erosion within the Rio Puerco. The efforts will be complementary and not overlap or duplicate the efforts as proposed in this grant application. The USACE will assist in the need for monitoring for a 5-year period

through assessing efficacy of practices from this EWRP project to protecting the Pottery Mound site and augment approaches as necessary to the riparian area at the Oxbow of the Pottery Mound and upstream to mitigate high flow energy and sediment transport.

D) Conflict of Interest Disclosure Statement

No actual or potential conflict of interest exists at the time of submission.

E) Uniform Audit Reporting Statement

The applicant, the Pueblo of Isleta (POI), was required to and did conduct and submit a Single Audit Report for fiscal year 2021. POI's EIN is 85-0164038. This statement confirms that the audit is available through the Audit Clearinghouse website.

F) Letters of Support and Partnership

See the attached letters of support summarized below:

1. Ancestral Lands Conservation Corp
2. New Mexico State Land Office
3. Bureau of Land Management
4. Mike Mechenbier, Four Daughter's Land and Cattle Company, private landowner
5. Valencia Soil and Water Conservation District
6. Army Corps of Engineers (USACE)

G) Official Resolution – see following the letters of support

See attached

ANCESTRAL LANDS CONSERVATION CORPS

7851 2nd Street SW
Albuquerque, NM 87105
(970) 216-5988
www.ancestrallands.org

Robin Graber
Bureau of Reclamation
Water Resources and Planning Office
P.O. BOX 25007, MS 86-69200
Denver, CO 80225

RE: Reclamation Environmental Water Resources Projects (EWRP) FY2023

March 22, 2023

Dear Robin Graber,

On behalf of Ancestral Lands Conservation Corps (ALCC), a program of Conservation Legacy, we are writing to state our strong support for the proposed project entitled "***Restoring Watershed Function and Protecting Sacred Ancestral Sites on the lower Rio Puerco, a tributary of the Rio Grande***," submitted by the Pueblo of Isleta. We support the team's concept of the restoration, and we commit to partnership in facilitating building the Pueblo's natural resource management capacity through providing installation teams and interns that will be trained by the project team during the proposed three-year project, as outlined in the project's Technical and Budget narratives.

ALCC has partnered with Tribes since our inception in 2008, employing Indigenous youth and young adults in conservation programs that center Indigenous ways of life, complete needed projects that conserve and protect natural and cultural resources, and prepare our participants for careers with land management agencies and in the field of conservation. Our program has served as a model for the recent Indian Youth Service Corps, announced last year by Secretary of the Interior Deb Haaland. ALCC's vision is the lead our Nations back to ecological and cultural well-being, and the project to protect the sacred sites and restore water function along the lower Rio Puerco aligns with this vision. This project will also strengthen the burgeoning partnership we have with the Pueblo, as we work to create a local ALCC office to serve the community, employ local young people, and create lasting positive impact on Tribal lands.

We see great value in engaging local and neighboring Indigenous young people to install structures that will spread and slow flows in the area, leading to increased vegetation, reduced flood events and erosion, and less sediment transported downstream, improving the water quality of the Rio Puerco and Rio Grande. This project also elevates Traditional Knowledge with Western scientific approaches, recognizing the value of the knowledge that original and current inhabitants of these lands have. It is critical to center Indigenous knowledge and lifeways when creating lasting solutions to the climate crisis. Our role will be to engage local Indigenous participants on this project, partner with other members of the collaborative to train the participants, and implement the project work. Individual Placements (IPs) will create test plots of the interventions in preparation for the larger crews to complete the work at a larger scale and will monitor the effectiveness of the interventions. By training local youth, we invest in the long-term success of these projects and pass on the knowledge to the next generation to continue.

ANCESTRAL LANDS CONSERVATION CORPS

7851 2nd Street SW
Albuquerque, NM 87105
(970) 216-5988
www.ancestrallands.org

ALCC commits to selecting one Individual Placement per year of the project as well as filling two crews of six Indigenous participants to implement the project. We will participate in planning and coordination calls and will dedicate staff time as well as provide an in-kind match through our partnership with AmeriCorps for any funding our program receives to support crews and IPs, as lined out in the budget. Please give strong consideration to this impactful project.

Tiahui,

Chas Robles
Ancestral Lands Conservation Corps Director
970-216-5688
chas@conservationlegacy.org

Stephanie Garcia Richard
COMMISSIONER

State of New Mexico
Commissioner of Public Lands

310 OLD SANTA FE TRAIL
P.O. BOX 1148
SANTA FE, NEW MEXICO 87504-1148

COMMISSIONER'S OFFICE
Phone (505) 827-5760
Fax (505) 827-5766
www.nmstatelands.org

Robin Graber
Bureau of Reclamation
Water Resources and Planning Office
P.O. BOX 25007, MS 86-69200
Denver, CO 80225

RE: Reclamation Environmental Water Resources Projects (EWRP) FY2023

March 27, 2023

Dear Ms. Graber,

On behalf of the New Mexico State Land Office and Commissioner Stephanie Garcia Richard, I am writing to state our strong support for the proposed project entitled "***Restoring Watershed Function and Protecting Sacred Ancestral Sites on the lower Rio Puerco, a tributary of the Rio Grande***," submitted by the Pueblo of Isleta. We support the team's concept of the restoration, and we commit to reviewing and providing feedback on the team's plans that would enable our approval for the implementation during the proposed three-year project. We understand that the team intends to contract the required EA document, and the biological, archaeological, and paleontological surveys, which will facilitate us completing our NEPA approval process.

At the state land office, we know that the entities who know the resources locally and their trusted partners are the best equipped to manage natural resources. While the land office has a constitutional requirement to raise funds for our beneficiaries, which are public schools and colleges, we also recognize the need to preserve the land for generations to come. We know this proposed project is aligned with our work at the land office, as we have similar projects throughout southern New Mexico to address the impact of climate change on state trust land.

Should you have any questions for the state land office, please call 505-699-2431.

Sincerely,

Rachael N. Lorenzo
Rachael N. Lorenzo
Assistant Commissioner of Cultural Resources
New Mexico State Land Office

United States Department of the Interior

BUREAU OF LAND MANAGEMENT
Albuquerque District
Rio Puerco Field Office
100 Sun Avenue NE, Suite 330
Albuquerque, New Mexico 87109
https://www.blm.gov/new-mexico

Robin Graber
Bureau of Reclamation
Water Resources and Planning Office
P.O. BOX 25007, MS 86-69200
Denver, CO 80225

RE: Reclamation Environmental Water Resources Projects (EWRP) FY2023

23 March, 2023

Dear Mrs. Graber,

The Bureau of Land Management, Rio Puerco Field Office is in support of the proposed project titled "***Restoring Watershed Function and Protecting Sacred Ancestral Sites on the lower Rio Puerco, a tributary of the Rio Grande***," submitted by the Pueblo of Isleta. We support the team's concept of restoration, and we commit to reviewing and providing feedback on the team's plans that would enable our approval for the implementation during the proposed three-year project. We understand that the team intends to contract the required EA document, and the biological, archaeological, and paleontological surveys, which will facilitate us completing our NEPA approval process.

- The Bureau of Land Management is a federal land management agency tasked with managing federal lands under its jurisdiction. Congress tasked the BLM with a mandate of managing public lands for a variety of uses such as energy development, livestock grazing, recreation, and timber harvesting while ensuring natural, cultural, and historic resources are maintained for present and future use. To do this, we manage public lands to provide opportunities for commercial, recreational, and conservation activities. This promotes healthy and productive public lands that create jobs in local communities while supporting traditional land uses such as responsible energy development, timber harvesting, grazing, and recreation, including hunting and fishing.

- The projects to be completed on BLM land will assist in restoring watershed health by slowing runoff down in tributaries most vulnerable to erosion and restoring floodplains that had been abandoned by the Rio Puerco due to incision. By reducing the speed of runoff, the erosive power of the water will be reduced, and the quantity of sediment transported by the Rio Puerco should decrease. With less sediment reaching the Rio Grande, the design life of dams downstream, especially the one at Elephant Butte, may be extended as their associated reservoirs will fill up with sediment less rapidly. The methods to be used will also permit enough infiltration to allow the growth of vegetation which will help reduce the intensity of high flow events.

- The BLM has conducted multiple projects utilizing similar methods with local success. Some arroyos have experienced reduced erosion due to increased sedimentation which has allowed more vegetation to establish in arroyo bottoms. These successes have only been area-specific however and did not extend throughout the entire watershed. This is because certain portions of the watershed extended onto lands where the BLM had no jurisdiction and restorative work could not be done. The inclusion of multiple landowners would help the entirety of the project with an improvement to watershed health as a result of the restoration being proposed.

- The types of projects proposed are designed to manipulate hydrologic processes in an area that is highly prone to channelization, incision, and erosion. Reducing channelization and concentration of water would reduce the risk of flooding by spreading the water out across the landscape, reducing water velocity, and encouraging deposition of nutrient rich sediment. Projects attempting to keep water within the watershed would help reduce the effects of drought by allowing water the opportunity to infiltrate into the soil, increasing soil moisture.

- Watershed management activities don't just affect the lands upon which the project occurs. Downstream effects are also important considerations. By cooperating with multiple landowners/managers, it would be possible to create a more integrated approach to issues that do not only occur on lands under the authority of the BLM.

Sincerely,

Joshua Freeman
Acting Field Manager

4 DAUGHTERS LAND AND CATTLE CO.
3211 STATE HIGHWAY 47
LOS LUNAS, NM 87031
(505) 388-2902

March 23, 2023

Robin Graber
Bureau of Reclamation
Water Resources and Planning Office
P.O. BOX 25007, MS 86-69200
Denver, CO 80225

RE: Support for Reclamation Environmental Water Resources Project (EWRP) FY2023

Dear Ms. Graber:

On behalf of Four Daughters Land and Cattle Company, we are writing to state our support for the proposed project entitled "***Restoring Watershed Function and Protecting Sacred Ancestral Sites on the lower Rio Puerco, a tributary of the Rio Grande***," submitted by the Pueblo of Isleta (Pueblo) and located on the Pueblo's Comanche Ranch. We support the Pueblo's concept of the restoration, and we commit to reviewing and providing feedback on the Pueblo's plans that would enable our approval for the implementation during the proposed three-year project.

Four Daughters Land and Cattle Company (Four Daughters) is a family owned farming and ranching company that gives back to the community through an organization the Mechenbier's founded, El Ranchito de Los Ninos, a foster home for siblings. The ranching portion of the company, has some of its ranch land west of and adjacent to the Comanche Ranch where the proposed project is located.

The restoration of watershed function in this area is needed as we have experienced some of the same erosion problems as the Comanche Ranch. When the watershed is properly restored water spreads and water velocities are reduced which supports the growth of vegetation which further prevents erosion. The restoration effort in the long term will mitigate flooding and will reduce sediment transport into downstream water infrastructure and the Rio Grande. This work will protect sacred ancestral sites from damage due to erosion and we value and support the preservation of such sites.

Our support for this project is based on the agreement that there will be controlled access to our land and permission for entering our land must be granted by Four Daughters each time entry is needed. Four Daughters must be allowed to review and pre-approve all plans and actions involving our land before plans and actions take place.

As stated, we support this project and support EWRP grant money being made available to do this work.

Sincerely,

Mike Mechenbier
President

Cc: Richard Davidson, Alamo Land Institute
Clint Lente, Pueblo of Isleta, Natural Resources Department

VALENCIA
SOIL & WATER CONSERVATION DISTRICT

Providing resource conservation for a quality environment demonstrated through active leadership, cooperation and partnership

Board of Supervisors

Abel Camarena, Chair • Teresa Smith de Cherif, Vice-Chair • Duana Draszkiewicz, Treasurer • Richard Bonine Jr., Supervisor • Gail Goodman, Supervisor • Priscilla Abeita, Supervisor • Pam Cordova, Supervisor

P.O. Box 170, Belen, NM 87002
Office: 2424 Hwy 47, Belen, NM
505-864-8914 • public-input@valenciaswcd.org

Robin Graber
Bureau of Reclamation
Water Resources and Planning Office
P.O. BOX 25007, MS 86-69200
Denver, CO 80225

RE: Reclamation Environmental Water Resources Projects (EWRP) FY2023

March 23, 2023

Dear Ms. Graber,

I am writing on behalf of the Valencia Soil and Water Conservation District (VSWCD) in support of the proposed project entitled "***Restoring Watershed Function and Protecting Sacred Ancestral Sites on the lower Rio Puerco, a tributary of the Rio Grande***," submitted by the Pueblo of Isleta.

The Pueblo of Isleta is an important partner of our District, which includes over one million acres and spans 5 counties. The Pueblo of Isleta and most of the Pueblo of Laguna fall within our District boundaries, and we are proud to have a representative from the Pueblo of Laguna and an Isleta Pueblo member on our Board.

We support the concept of restoration the watershed of the lower Rio Puerco and the protection of ancestral sites that are sacred to the Pueblo of Isleta. The project shares goals that are inherent in our efforts to provide resource conservation for a quality environment through active leadership, cooperation, and partnership. Our District has also been committed to the preservation of the sacred ancestral sites in Comanche Ranch for many years. As a matter of fact, I wrote the *Brief of Amicus Curiae* that our Board submitted to the 13th Judicial Court in 2008-2009 to stop the placement of a large natural gas storage facility in San Clemente, as it would put the sacred sites at Pottery Mound and elsewhere in Comanche Ranch at grave risk.

We support the collaborative approach of the project. If our approval of the project or other collaboration is requested, our District will be pleased to review, provide feedback on, and learn from the team's plans during the proposed three-year project.

Our District is one of 47 Soil and Water Conservation Districts in New Mexico that were established as a response to the environmental disaster caused by the Dust Bowl. Established in 1947, the mission of our District is to provide education, technical assistance, and recognition to the current and future stewards of the land, including the first and forever stewards of the lands within our boundaries—the Pueblos of Isleta and the Pueblo of Laguna. As such, we are pleased to continue and strengthen our collaboration with both Pueblos in our District.

The low-impact practices that the project envisions are not only scientifically sound, but also will provide an opportunity for education, training, and employment. The project invites collaboration with the lands outside of the subject area, lands that also are in our District and the Pueblo of Laguna. We believe this project may be a pilot that could be replicated upstream, to help restore more areas of the Rio Puerco reach.

The project activities will contribute to restoration of the important watershed that is the Rio Puerco, but also to the Middle Rio Grande and Rio Abajo watersheds. The revegetation and restored habitat that will result from the project also will improve the rangeland management within and without of the project's subject area, invite migratory birds and other game (deer, elk, etc.), roll back and mitigate erosion, and re-establish a source of traditional plants and medicinal herbs to the people of the Pueblo of Isleta.

As the recent United Nations report on climate change noted, collaborative work is the key to long-term climate resiliency. This project has invited collaboration from the outset. As the project is implemented and with its success, the project promises a chance of deep and lasting collaboration to face other areas—particularly in our District—that have been impacted by flooding, erosion, and fire.

We endorse this project, support its approval, and look forward to future collaborative opportunities it will bring.

Sincerely,

Dr. Teresa E. Smith de Cherif

Teresa Smith de Cherif
Vice Chair
Valencia Soil and Water Conservation District

DEPARTMENT OF THE ARMY
CORPS OF ENGINEERS, ALBUQUERQUE DISTRICT
4101 JEFFERSON PLAZA NE
ALBUQUERQUE, NM 87109-3435

Robin Graber

Bureau of Reclamation
Water Resources and Planning Office
P.O. BOX 25007, MS 86-69200
Denver, CO 80225

RE: Reclamation Environmental Water Resources Projects (EWRP) FY2023

28 March 2023

Dear Ms. Graber:

On behalf of the US Army Corps of Engineers (USACE), we are writing to inform you the intent to partner with the Pueblo of Isleta on a project to reduce potential damages to the Pottery mound site that would result from lateral erosion within the Rio Puerco. We understand that the Pueblo is pursuing a complimentary project through the proposed WaterSMART Environmental Water Resources Project (EWRP) grant application. The grant application to be submitted by the Pueblo of Isleta is titled "***Restoring Watershed Function and Protecting Sacred Ancestral Sites on the Lower Rio Puerco, a Tributary of the Rio Grande.***" The funding from this grant will be used for low impact methods of reducing erosion from arroyo discharge and overland flows that are also damaging the Pottery Mound site and other nearby sacred ancestral sites.

The USACE received a letter of interest from the Pueblo of Isleta expressing interest in the USACE Tribal Partnership Program (TPP) as a means of obtaining funding for bank stabilization of the oxbow in the Rio Puerco in the vicinity of the Pottery Mound. The TPP project would commence with a feasibility study as phase one of the project. The second phase of the program is design and construction once a justified project is identified. Recent coordination with the Pueblo of Isleta provided assurance the Pueblo intends to take the steps necessary to begin the feasibility study and Federal funding has been allocated to begin the feasibility study.
If you have any questions about the TPP and the Rio Puerco bank stabilization proposed project, please contact me at (505) 342-3340 or at ryan.p.gronewold@usace.army.mil.

Sincerely,

Ryan Gronewold, P.E.
Chief, Planning Branch
USACE, Albuquerque District

TRIBAL COUNCIL OFFICE

PHONE: 505-869-9746
FAX: 505-869-5276

PUEBLO OF ISLETA

P.O. BOX 1270
ISLETA, NM 87022

RESOLUTION 2021-073A

AUTHORIZING THE PUEBLO TO ENTER INTO P.L. 93-638 SELF-DETERMINATION CONTRACT WITH THE BUREAU OF RECLAMATION IN THE AMOUNT OF $350,000 TO PERFORM WATERSHED RESTORATION WORK ON THE RIO PUERCO IN ORDER TO PROTECT THE POTTERY MOUND ARCHAEOLOGICAL SITE

At a duly called meeting of the Tribal Council of the Pueblo of Isleta held on the__day of December 2021, the following resolution was adopted:

WHEREAS, the Pueblo of Isleta (the "Pueblo") is a federally-recognized tribe that acts through its governing body, the Tribal Council, which is charged with decision-making in matters relative to tribal lands, resources, and the general welfare of the Pueblo and its members;

WHEREAS, under Article V of the Pueblo's Constitution to the powers of the Tribal Council include entering into agreements with the federal government and to otherwise manage and control the lands and resources of the Pueblo for the best interest of the Pueblo;

WHEREAS, the Pueblo's requested funding from the U.S. Bureau of Reclamation Native American Affairs Program ("BoR") to perform watershed restoration work in and around the Rio Puerco (the "Work") aimed at preserving the Pottery Mound Archeological Site;

WHEREAS, BoR is willing to provide $350,000.00 to the Pueblo towards the Work through a P.L. 93-638 Self-Determination Contract;

WHERAS, pursuant to the proposed 638 contract the Pueblo will also be applying for funding from BoR through its WaterSMART Environmental Water Resources program in order to obtain additional funding for the watershed/Pottery Mound restoration Work; and

WHERAS, if the Pueblo is awarded WaterSMART funding for the Work it is anticipated that the Pueblo will enter into a cooperative agreement with BoR for the use of such funds.

NOW, THEREFORE, BE IT RESOLVED that the Tribal Council hereby authorizes the Governor of the Pueblo to enter into a 638 Self-Determination Contract with BoR in the amount

of $350,000 for the Work and to pursue other funding opportunities and agreements with BoR to further the Pueblo's goal of protecting and preserving Pottery Mound.

BE IT FURTHER **RESOLVED** that the Governor is authorized and directed to take such further actions as are necessary and appropriate to carry out the purposes and intent of this Resolution.

CERTIFICATION

The undersigned do hereby certify that the foregoing Resolution was passed at a duly called meeting of the Tribal Council of the Pueblo of Isleta, held on the 13th day of December 2021, at which time a quorum was present, with -5- voting for, -0- opposing, and -0- abstaining.

Vernon B. Abeita, Governor

Joe Padilla, Tribal Council President

Attest:

M. Rodney Jones, Tribal Council Secretary

Budget Narrative: Project Budget

1.1 Funding Plan and Letters of Commitment

1.2 Budget proposal

Table 1. Summary of Non-Federal and Federal Funding Sources

FUNDING SOURCES	AMOUNT
Non-Federal Entities	
Pueblo of Isleta	$ 561,162.77
Ancestral Lands Conservation Corps	$ 268,151.22
Non-Federal Subtotal	***$ 829,313.99***
Requested Reclamation Funding	**$ 2,487,941.96**

See the letter of support for the match commitment from Ancestral Lands Conservation Corps in the additional Recommended Documents File, along with the other letters of support.

Table 2. Total Project Cost Summary

SOURCE	AMOUNT
Costs to be reimbursed with the requested Federal funding	$ 2,487,941.96
Costs to be paid by the applicant	$ 561,162.77
Value of third-party contributions	$ 268,151.22
Total Project Cost	**$ 3,317,255.95**

Continued next page

Table 3. Budget Proposal

Reclamation EWRP TOTAL GRANT					Fed/Non-Fed Match worksheet (Non-Fed from recipient in black, from partners in blue)	
BUDGET ITEM DESCRIPTION	COMPUTATION $/Unit and Unit	Qnty	Quantity Type	TOTAL COST	NON-FED MATCH	RECLAMATION FUNDING
SALARIES AND WAGES			***subtotal->***	**$ 107,782.14**	**$ 107,782.14**	**$ -**
Clint Lente, Director of Natural Resource Division	$ 42.71	160	hours	$ 6,833.60	$ 6,833.60	$ -
Robert Mariano, Forestry Supervisor, Natural Resource Division	$ 30.50	1,368	hours	$ 41,724.00	$ 41,724.00	$ -
Road Crew Supervisor for Road work	$ 24.29	200	hours	$ 4,858.00	$ 4,858.00	$ -
Field Technician Crew of 3 for Road work	$ 20.01	600	hours	$ 12,006.00	$ 12,006.00	$ -
Crew Supervisor for Oxbow work and working with Ancestral Lands	$ 21.26	323	hours	$ 6,871.23	$ 6,871.23	$ -
Field Technician Crew of 4 for Oxbow work	$ 20.01	960	hours	$ 19,209.60	$ 19,209.60	$ -
Range Tech crew of 3 for juniper post recruitmen	$ 20.01	360	hours	$ 7,203.60	$ 7,203.60	$ -
Delivery driver (aided by other crews)	$ 20.01	454	hours	$ 9,076.11	$ 9,076.11	$ -
FRINGE BENEFITS			***subtotal->***	**$ 26,945.53**	**$ 26,945.53**	**$ -**
Full time employees		25%		$ 26,945.53	$ 26,945.53	$ -
Part-Time employees - N/A						
TRAVEL			***subtotal->***	**$ -**	**$ -**	**$ -**
None proposed			trips	$ -		$ -
EQUIPMENT			***subtotal->***	**$ 3,121,494.44**	**$ 645,605.58**	**$ 2,475,888.86**
Equipment Mobilization	$ 5,000.00	3	LS	$ 15,000.00	$ 15,000.00	$ -
Road Restoration Work: D6 Bulldozer	$ 152.00	200	hours	$ 30,400.00	$ 25,899.36	$ 4,500.64
Road Restoration Work: Backhoe	$ 30.36	200	hours	$ 6,072.00	$ -	$ 6,072.00
Road Restoration Work: Road Grader	$ 65.12	200	hours	$ 13,024.00	$ -	$ 13,024.00
Restoration Practices: Hauling of prunings for brush weirs (14 CY per load - 100 miles roundtrip)	$ 78.59	50	loads	$ 3,929.50	$ -	$ 3,929.50
Restoration Practices: Delivery of rock (14 CY per load - 20 miles roundtrip)	$ 78.59	33	loads	$ 2,600.95	$ -	$ 2,600.95
Restoration Practices: Delivery of mulch (14 CY per load - 100 miles roundtrip)	$ 78.59	21	loads	$ 1,625.16	$ -	$ 1,625.16
Oxbow Work: Delivery of plant material (14 CY per load - 100 miles roundtrip)	$ 78.59	50	loads	$ 3,929.50	$ -	$ 3,929.50
SUPPLIES/MATERIALS			***subtotal->***	**$ 78,290.74**	**$ 78,290.74**	**$ -**
Oxbow Work: Wood piles ($15/per foot, 30' posts)	$ 450.00	50	ea	$ 22,500.00	$ 22,500.00	$ -
Oxbow Work: Wood posts and fencing for sediment fence ($12/per foot, 20' posts)	$ 240.00	50	ea	$ 12,000.00	$ 12,000.00	$ -
Oxbow Work: Fence wire (8'x100' rolls)	$ 400.00	4	rolls	$ 1,600.00	$ 1,600.00	$ -
Oxbow Work: Miscellaneous fasteners estimate	$ 300.00	1	ea	$ 300.00	$ 300.00	$ -
Restoration Practices: Rock for stone lines (1 yd^3 per 30 lineal feet, 6,700 l.f)	$ 55.00	223	cy	$ 12,283.33	$ 12,283.33	$ -
Restoration Practices: Rock for one rock dams (2 cy per structure, 120 est. structures)	$ 55.00	240	cy	$ 13,200.00	$ 13,200.00	$ -
Restoration Practices: Native Mulch ($35/cy, 15' wide @1" thick mulch strip at stone lines)	$ 40.00	310	cy	$ 12,407.41	$ 12,407.41	$ -
Restoration Practices: Soil testing	$ 500.00	6	ea.	$ 3,000.00	$ 3,000.00	$ -

Reclamation EWRP TOTAL GRANT					Fed/Non-Fed Match worksheet (Non-Fed from recipient in black, from partners in blue)	
BUDGET ITEM DESCRIPTION	COMPUTATION $/Unit and Unit	Qnty	Quantity Type	TOTAL COST	NON-FED MATCH	RECLAMATION FUNDING
Restoration Practices: Water testing	$ 1,000.00	1	ea.	$ 1,000.00	$ 1,000.00	$ -
CONTRACTUAL/ CONSTRUCTION / SUBAWARDS			subtotal->	$ 2,882,756.18	$ 526,415.48	$ 2,356,340.70
Subaward - 1) Tribal Historic Preservation Officer			subtotal->	$ 62,430.20	$ 62,430.20	$ -
Salaries and Wages, includes fringe			subtotal->	$ 43,430.70	$ 43,430.70	$ -
Henry Walt, archaeologist and Tribal Historic Preservation Officer, overall review of work in coordination with sacred and ancestral sites	$61.17	710		$ 43,430.70	$ 43,430.70	$ -
Work specific for SHPO survey requirements	$61.17	250		$ 15,292.50	$ 15,292.50	
GRT - Pueblo of Isleta	6.3125%			$ 3,707.00	$ 3,707.00	$ -
Subaward - 2) SHPO consultant			subtotal->	$ 56,091.50	$ 56,091.50	$ -
Salaries and Wages, includes fringe			subtotal->	$ 52,760.50	$ 39,760.50	$ -
Mike Marshall	$61.17	650		$ 39,760.50	$ 39,760.50	
GIS mapping	$25.00	200		$ 5,000.00	$ 5,000.00	
Crew Assistant	$20.00	400		$ 8,000.00	$ 8,000.00	
GRT - Pueblo of Isleta	6.3125%			$ 3,331.00	$ 3,331.00	$ -
Subaward - 2) Alamosa Land Institute			subtotal->	$ 204,970.21	$ 127,741.36	$ 77,228.85
Salaries and Wages, includes fringe			subtotal->	$ 185,500.00	$ 127,741.36	$ 57,758.64
Richard Davidson, project designer and coordinator	$125	1,274	hr	$ 159,250.00	$ 127,741.36	$ 31,508.64
Connie Maxwell, technical advisor	$125	210	hr	$ 26,250.00	$ -	$ 26,250.00
Travel			subtotal->	$ 19,470.21	$ -	$ 19,470.21
Mileage - 41 roundtrips (302 ea. Roundtrip)	$ 0.655	12,382	miles	$ 8,110.21	$ -	$ 8,110.21
Travel - Lodging - GSA rate Albuquerque	$ 121.00	38	nights	$ 4,598.00	$ -	$ 4,598.00
Travel - M&E - GSA rate Albuquerque	$ 69.00	98	days	$ 6,762.00		$ 6,762.00
GRT - not required, as ALI is a non-profit	0%			$ -	$ -	$ -
Subaward - 3) Resources Management Services			subtotal->	$ 49,985.40	$ 6,532.10	$ 43,453.30
Salaries and Wages, includes fringe			subtotal->	$ 45,000.00	$ 6,000.00	$ 39,000.00
Kirk Gadzia, Rangeland health consultant	$187.50	240		$ 45,000.00	$ 6,000.00	$ 39,000.00
Travel			subtotal->	$ 2,017.40	$ 144.10	$ 1,873.30
Mileage - 28 roundtrips (110 ea. Roundtrip)	$ 0.655	3,080	miles	$ 2,017.40	$ 144.10	$ 1,873.30
GRT - Pueblo of Isleta	6.3125%			$ 2,968.00	$ 388.00	$ 2,580.00
Subaward - 4) Revegetation Agronomist			subtotal->	$ 44,768.90	$ 5,469.10	$ 39,299.80
Salaries and Wages, including fringe			subtotal->	$ 41,600.00	$ 5,000.00	$ 36,600.00
David Dreesen, revegetation agronomist	$ 100.00	416	hr	$ 41,600.00	$ 5,000.00	$ 36,600.00
Travel			subtotal->	$ 510.90	$ 144.10	$ 366.80
Mileage - 13 roundtrips (60 ea. Roundtrip)	$ 0.655	780	miles	$ 510.90	$ 144.10	$ 366.80
GRT - Pueblo of Isleta	6.3125%			$ 2,658.00	$ 325.00	$ 2,333.00
Subaward - 5) NV5			subtotal->	$ 243,188.78	$ -	$ 243,188.78
Salaries and Wages			subtotal->	$ 212,331.00	$ -	$ 212,331.00
NEPA Document				$ 62,891.00	$ -	$ 62,891.00
NEPA Lead	$ 130.00	136	hours	$ 17,680.00	$ -	$ 17,680.00
QA/QC	$ 200.00	45	hours	$ 9,000.00	$ -	$ 9,000.00

Reclamation EWRP TOTAL GRANT					Fed/Non-Fed Match worksheet (Non-Fed from recipient in black, from partners in blue)	
BUDGET ITEM DESCRIPTION	COMPUTATION $/Unit and Unit	Qnty	Quantity Type	TOTAL COST	NON-FED MATCH	RECLAMATION FUNDING
NEPA QA/QC	$ 150.00	40	hours	$ 6,000.00	$ -	$ 6,000.00
CR Program Manager	$ 130.00	50	hours	$ 6,500.00	$ -	$ 6,500.00
Natural Resources Senior Biologist	$ 95.00	27	hours	$ 2,565.00	$ -	$ 2,565.00
Natural Resources Senior Biologist	$ 145.00	74	hours	$ 10,730.00	$ -	$ 10,730.00
GIS Program Manager	$ 100.00	45	hours	$ 4,500.00	$ -	$ 4,500.00
GIS Analyst	$ 78.00	32	hours	$ 2,496.00	$ -	$ 2,496.00
Project Analyst	$ 75.00	12	hours	$ 900.00	$ -	$ 900.00
Editor	$ 90.00	28	hours	$ 2,520.00	$ -	$ 2,520.00
Biological Survey				***$ 149,440.00***	***$ -***	***$ 149,440.00***
QA/QC	$ 200.00	20	hours	$ 4,000.00	$ -	$ 4,000.00
Junior Biologist	$ 85.00	498	hours	$ 42,330.00	$ -	$ 42,330.00
Natural Resources Senior Biologist	$ 95.00	466	hours	$ 44,270.00	$ -	$ 44,270.00
Natural Resources Senior Biologist	$ 145.00	129	hours	$ 18,705.00	$ -	$ 18,705.00
Natural Resources Senior Biologist	$ 115.00	223	hours	$ 25,645.00	$ -	$ 25,645.00
GIS Program Manager	$ 100.00	123	hours	$ 12,300.00	$ -	$ 12,300.00
Project Analyst	$ 75.00	10	hours	$ 750.00	$ -	$ 750.00
Editor	$ 90.00	16	hours	$ 1,440.00	$ -	$ 1,440.00
NEPA related travel and supplies			*subtotal->*	***$ 3,025.00***	***$ -***	***$ 3,025.00***
Biological Survey related travel and supplies			*subtotal->*	***$ 13,393.00***	***$ -***	***$ 13,393.00***
GRT - Albuquerque	6.3125%			***$ 14,439.78***	***$ -***	***$ 14,439.78***
Subaward - 6) High Desert Native Plants			*subtotal->*	***$ 679,815.65***	***$ -***	***$ 679,815.65***
Salaries and Wages, including fringe			*subtotal->*	***$ 164,700.00***	***$ -***	***$ 164,700.00***
Mike Gaglio, survey and design, training, including surveying for contour stone lines	$150.00	248	hours	$ 37,200.00		$ 37,200.00
Mike Gaglio, Keyline work (1 acre/hr, 800)	$150.00	800	hours	$ 120,000.00		$ 120,000.00
GIS Tech, Lara Barnes, preparation for keylining	$75.00	100	hours	$ 7,500.00		$ 7,500.00
Travel			*subtotal->*	***$ 34,750.65***	***$ -***	***$ 34,750.65***
Mileage - 41 roundtrips (530 ea. Roundtrip)	$ 0.655	16,430	miles	$ 10,761.65		$ 10,761.65
Travel - Lodging - GSA rate Albuquerque	$ 121.00	115	nights	$ 13,915.00		$ 13,915.00
Travel - M&IE - GSA rate Albuquerque	$ 69.00	146	days	$ 10,074.00		$ 10,074.00
Equipment			*subtotal->*	***$ 280,000.00***	***$ -***	***$ 280,000.00***
Keyline Imprinting Seeding, per acre (includes tractor and all equipment in one rate per acre)	$350.00	800	acres	$ 280,000.00		$ 280,000.00
Supplies/Materials			*subtotal->*	***$ 160,000.00***	***$ -***	***$ 160,000.00***
Seeds	$ 200.00	800	acres	$ 160,000.00		$ 160,000.00
GRT - Pueblo of Isleta	6.3125%			***$ 40,365.00***	***$ -***	***$ 40,365.00***
Subaward - 7) Rangeland Hands, Inc.			*subtotal->*	***$ 92,830.00***	***$ -***	***$ 92,830.00***
Salaries and Wages, including fringe			*subtotal->*	***$ 71,280.00***	***$ -***	***$ 71,280.00***
Steve Carson	$ 165.00	432	hours	$ 71,280.00		$ 71,280.00
Travel			*subtotal->*	***$ 8,100.00***	***$ -***	***$ 8,100.00***
Per diem	$ 150.00	54	days	$ 8,100.00		$ 8,100.00
Indirect	10%			***$ 7,938.00***		***$ 7,938.00***
GRT - Pueblo of Isleta	6.3125%			***$ 5,512.00***	***$ -***	***$ 5,512.00***

Reclamation EWRP TOTAL GRANT					*Fed/Non-Fed Match worksheet (Non-Fed from recipient in black, from partners in blue)*	
BUDGET ITEM DESCRIPTION	COMPUTATION $/Unit and Unit	Qnty	Quantity Type	TOTAL COST	NON-FED MATCH	RECLAMATION FUNDING
Subaward - 8) Ancestral Lands Conservation Corps			*subtotal->*	***$ 918,680.40***	***$ 268,151.22***	***$ 650,529.18***
Salaries and Wages			*subtotal->*	***$ 651,658.64***	***$ 216,303.31***	***$ 435,355.33***
Crew Leader (2025) - (1)	$ 800.00	52	weeks	$ 41,600.00		$ 41,600.00
Assistant Crew Leader (2025) - (1) - Living and Housing Allowance	$ 700.00	52	weeks	$ 36,400.00		$ 36,400.00
Members-2025 Crews (4) - Living and Housing Allowance	$ 1,418.38	208	weeks	$ 295,023.31	$ 159,823.31	$ 135,200.00
Intern-2024 IPs (1) - Living & Housing Allowance	$ 1,180.56	48	weeks	$ 56,666.67	$ 18,266.67	$ 38,400.00
Intern-2025 Ips (1) - Living & Housing Allowance	$ 1,217.22	48	weeks	$ 58,426.67	$ 18,826.67	$ 39,600.00
Intern-2026 IPs (1) - Living & Housing Allowance	$ 1,253.89	48	weeks	$ 60,186.67	$ 19,386.67	$ 40,800.00
Allocated Staff-2024 IPs	$ 48.29	48	weeks	$ 2,318.07		$ 2,318.07
Allocated Staff-2025 IPs	$ 52.67	48	weeks	$ 2,528.33		$ 2,528.33
Allocated Staff-2026 IPs	$ 57.05	48	weeks	$ 2,738.58		$ 2,738.58
Allocated Staff-2025 crews	$ 1,841.74	52	weeks	$ 95,770.35		$ 95,770.35
Fringe			*subtotal->*	***$ 75,633.85***	***$ -***	***$ 75,633.85***
Crew Leader (2025) - (1)	$ 135,200.00	0.2016	percent	$ 27,256.32		$ 27,256.32
Assistant Crew Leader (2025) - (1)	$ 41,600.00	0.1390	percent	$ 5,782.40		$ 5,782.40
Crews	$ 135,200.00	0.1390	percent	$ 18,792.80		$ 18,792.80
Interns (13.9% plus 40/week for health)	$ 118,800.00	0.1390	percent	$ 16,513.20		$ 16,513.20
Intern Health Insurance	$ 40.00	144	percent	$ 5,760.00		$ 5,760.00
Allocated Staff-2024 IPs	$ 2,318.07	0.2016	percent	$ 467.32		$ 467.32
Allocated Staff-2025 IPs	$ 2,528.33	0.2016	percent	$ 509.71		$ 509.71
Allocated Staff-2026 IPs	$ 2,738.58	0.2016	percent	$ 552.10		$ 552.10
Travel			*subtotal->*	***$ 32,112.00***	***$ -***	***$ 32,112.00***
Allocated Travel - 2025 crews	$ 612.00	52	weeks	$ 31,824.00		$ 31,824.00
Allocated Travel - Individual Placements	$ 2.00	144	weeks	$ 288.00		$ 288.00
Equipment - none included						
Supplies/Materials			*subtotal->*	***$ 46,854.00***	***$ -***	***$ 46,854.00***
Allocated Supplies - 2025 crews	$ 619.50	52	weeks	$ 32,214.00		$ 32,214.00
Allocated Supplies - Individual Placements	$ 60.00	144	weeks	$ 8,640.00		$ 8,640.00
Additional Supplies - Individual Placements	$ 6,000.00	1	ea	$ 6,000.00		$ 6,000.00
Indirect *- basis (Reclamation request): Staff + Staff benefits + travel + supplies + first $25k of subrecipient if applicable (value of indirect on crews and Ips are match)*	***$ 252,706.78***	***23.97%***		***$ 112,421.90***	***$ 51,847.90***	***$ 60,574.00***
No GRT, as ALCC are a non-profit and exempt				$ -	$ -	$ -
Subaward - 9) Hydra Aquatic Inc.			*subtotal->*	***$ 529,995.14***	***$ -***	***$ 529,995.14***
Salaries and Wages, including fringe			*subtotal->*	***$ 202,920.00***	***$ -***	***$ 202,920.00***
Project Manager	$ 150.00	262	hours	$ 39,300.00		$ 39,300.00
Laborer (6 People)	$ 85.00	1572	hours	$ 133,620.00		$ 133,620.00
Design of irrigation system	$ 30,000.00	1	ea.	$ 30,000.00		$ 30,000.00
Travel			*subtotal->*	***$ 7,696.25***	***$ -***	***$ 7,696.25***
Travel (2 trucks)	$ 0.655	11,750	hours	$ 7,696.25		$ 7,696.25

Reclamation EWRP TOTAL GRANT					***Fed/Non-Fed Match worksheet (Non-Fed from recipient in black, from partners in blue)***	
BUDGET ITEM DESCRIPTION	COMPUTATION $/Unit and Unit	Qnty	Quantity Type	TOTAL COST	NON-FED MATCH	RECLAMATION FUNDING
Equipment			*subtotal->*	***$ 15,800.00***	***$ -***	***$ 15,800.00***
Equipment (Power Augers & Side x Side) for Coyote Willow plantings	$ 3,500.00	2	ea.	$ 7,000.00		$ 7,000.00
Equipment (Power Augers & Side x Side) for Goodings Willow plantings	$ 2,800.00	1	ea.	$ 2,800.00		$ 2,800.00
Equipment for irrigation system (2 Side x Sides)	$ 1,500.00	4	ea.	$ 6,000.00		$ 6,000.00
Supplies/Materials			*subtotal->*	***$ 265,458.89***	***$ -***	***$ 265,458.89***
Supplies/Materials (Willow Poles & Amendments)	$ 7.50	2500	poles	$ 18,750.00		$ 18,750.00
Supplies/Materials (Goodings W. & Cottonwood Poles & Amendments)	$ 25.00	250	poles	$ 6,250.00		$ 6,250.00
Grass plugs required per 18" o.c. spacing (est. 1 per 2.25 sf, total 100,000 s.f.)	$ 2.00	44444	plugs	$ 88,888.89		$ 88,888.89
Giant Sacaton 10 Cl plug	$ 9.00	5000	plugs	$ 45,000.00		$ 45,000.00
Supplies/Materials (Irrigation Components)	$ 106,570.00	1	system	$ 106,570.00		$ 106,570.00
GRT - Albuquerque	7.75%			***$ 38,120.00***	***$ -***	***$ 38,120.00***
Consultant/Contr - 10) Mauldin Drilling			*subtotal->*	***$ 57,064.50***	***$ -***	***$ 57,064.50***
Salaries and Wages, includes fringe			*subtotal->*	***$ 1,200.00***	***$ -***	***$ 1,200.00***
Well design	$ 150.00	8	hours	$ 1,200.00	$ -	$ 1,200.00
Equipment			*subtotal->*	***$ 25,000.00***	***$ -***	***$ 25,000.00***
7.5 Kw generator	$ 20,000.00	1	ea.	$ 20,000.00		$ 20,000.00
Equipment locker & slab	$ 5,000.00	1	ea.	$ 5,000.00		$ 5,000.00
Supplies/Materials			*subtotal->*	***$ 25,000.00***	***$ -***	***$ 25,000.00***
Well - 150' 6" casing, 5hp pump 40psi 55 gal/min	$ 25,000.00	1	ea.	$ 25,000.00		$ 25,000.00
Travel			*subtotal->*	***$ 2,476.50***	***$ -***	***$ 2,476.50***
Mileage - 1 roundtrip (300 ea. Roundtrip)	$ 0.655	300	miles	$ 196.50	$ -	$ 196.50
Lodging - GSA rate Albuquerque, 3 people	$ 121.00	12	nights	$ 1,452.00	$ -	$ 1,452.00
M&IE - GSA rate Albuquerque, 3 people	$ 69.00	12	days	$ 828.00		$ 828.00
GRT - Pueblo of Isleta	**6.3125%**			***$ 3,388.00***	***$ -***	***$ 3,388.00***
OTHER COSTS			***subtotal->***	**$ 26,801.90**	**$ -**	**$ 26,801.90**
Stipend for Pueblo member Valentino Jaramillo, advisor on culturally valued plants	$ 100.00	10	meetings	$ 1,000.00	$ -	$ 1,000.00
Oxbow Work: Pile driver rental estimate	$ 3,005.00	5	week	$ 15,025.00	$ -	$ 15,025.00
Oxbow Work: Borer and skid steer rental estimate	$ 2,155.38	5	week	$ 10,776.90	$ -	$ 10,776.90
TOTAL DIRECT COSTS				$ 3,256,222.11	$ 780,333.25	$ 2,475,888.86
Modified Total Direct Costs (excludes capital equipment purchases and subawards / subcontracts)				$ 316,401.43	$ 253,917.77	$ 35,681.76
Indirect costs - 19.29%	19.29%			$ 61,033.84	$ 48,980.74	$ 12,053.10
TOTAL PROJECT COSTS				**$ 3,317,255.95**	$ 829,313.99	$ 2,487,941.96

Continued next page

1.3 Budget Narrative

1.3.1 Salaries and Wages - $107,782.14

Clint Lente, Director of Natural Resources, will provide overview for the project including coordination and community meetings, site visits, review of reports and invoices, and project workshops for each budget year as described below. Compensation rates represent the actual labor rates of the identified personnel/position and are consistently applied to Federal and non-Federal activities. The percentages of effort are also provided in the below table.

Task Description	Yr1	Yr2	Yr3	Rate	Total
Task 1: Overall coordination and community meetings	15 hrs	12 hrs	13 hrs	$42.71	$ 1,708.40
Task 2: Site visits	15 hrs	10 hrs	15 hrs	$42.71	$ 1,708.40
Task 3: Review of reports and invoices	15 hrs	8 hrs	17 hrs	$42.71	$ 1,708.40
Task 4: Project workshops	13 hrs	13 hrs	14 hrs	$42.71	$ 1,708.40
Total	**58 hrs**	**43 hrs**	**59 hrs**		**$ 6,833.60**
Percentage of each year	2.8%	2.1%	2.8%		
Totals each year	$ 2,477	$ 1,837	$ 2,520		

Robert Mariano, Forestry Supervisor, Natural Resource Division, will provide project management for the project including site visits with the team for design assessment and with the site supervisor for practice installation, coordination and community meetings, review of reports and invoices with Clint Lente, and project workshops for each budget year as described below. Compensation rates represent the actual labor rates of the identified personnel/position and are consistently applied to Federal and non-Federal activities. The percentages of effort are also provided in the below table.

Task Description	Yr1	Yr2	Yr3	Rate	Total
Task 1: Project management, including site visits	416 hrs	416 hrs	416 hrs	$30.50	$ 38,064.00
Task 2: Coordination and community meetings	15 hrs	8 hrs	17 hrs	$30.50	$ 1,220.00
Task 3: Review of reports and invoices	16 hrs	9 hrs	15 hrs	$30.50	$ 1,220.00
Task 4: Project workshops	15 hrs	10 hrs	15 hrs	$30.50	$ 1,220.00
Total	**462 hrs**	**443 hrs**	**463 hrs**		**$ 41,724.00**
Percentage of each year	22.2%	21.3%	22.3%		
Totals each year	$19,732	$18,921	$19,775		

The *Road Crew Supervisor* will provide supervision of the road restoration work, which will consist of 5 weeks of work in Yr2, led by the consultant Rangeland Hands, Inc. Compensation rates represent the actual labor rates of the identified personnel/position and are consistently applied to Federal and non-Federal activities. The percentages of effort are also provided in the below table.

Task Description	Yr1	Yr2	Yr3	Rate	Total
Task 1: Supervision of road restoration work	0 hrs	200 hrs	0 hrs	$24.29	$ 4,858.00
Total	**0 hrs**	**200 hrs**	**0 hrs**		**$ 4,858.00**
Percentage of each year	0.0%	9.6%	0.0%		
Totals each year	$ -	$ 4,858	$ -		

Three *Field Technician Crew members for Road Work* will provide labor for the road restoration work, which will consist of 5 weeks of work in Yr2. Compensation rates represent the actual labor rates of the identified personnel/position and are consistently applied to Federal and non-Federal activities. The percentages of effort are also provided in the below table.

Task Description	Yr1	Yr2	Yr3	Rate	Total
Technician 1: Task 1: Labor for road restoration work	0 hrs	200 hrs	0 hrs	$20.01	$ 4,002.00
Technician 2: Task 1: Labor for road restoration work	0 hrs	200 hrs	0 hrs	$20.01	$ 4,002.00
Technician 3: Task 1: Labor for road restoration work	0 hrs	200 hrs	0 hrs	$20.01	$ 4,002.00
Total	**0 hrs**	**200 hrs**	**0 hrs**		**$ 12,006.00**
Technician 1: Percentage ea. year	0.0%	9.6%	0.0%		
Technician 2: Percentage ea. year	0.0%	9.6%	0.0%		
Technician 3: Percentage ea. year	0.0%	9.6%	0.0%		
Totals each technician each year	$ -	$ 4,002	$ -		
Total 4 Technicians		$ 12,006			

The *Crew Supervisor for Oxbow work and working with Ancestral Lands* will provide supervision of the POI crew for work at the Pottery Mound Oxbow, which will consist of 6 weeks of work in Yr2, led by the consultant Rangeland Hands, Inc., and supervision of the Ancestral Lands Conservation Corps Crew, which will consist of 5 months of work in Yr2 and 1 month in Yr3. Compensation rates represent the actual labor rates of the identified personnel/position and are consistently applied to Federal and non-Federal activities. The percentages of effort are also provided in the below table.

Task Description	Yr1	Yr2	Yr3	Rate	Total
Task 1: Supervision of oxbow work	0 hrs	240 hrs	0 hrs	$21.26	$ 5,102.40
Task 2: Supervision of ALCC	0 hrs	69 hrs	14 hrs	$21.26	$ 1,768.83
Total	**0 hrs**	**309 hrs**	**14 hrs**		**$ 6,871.23**
Percentage of each year	0.0%	14.9%	0.7%		
Totals each year	$ -	$ 6,576	$ 295		

Four *Field Technician Crew members for Oxbow Work* will provide labor for work at the Pottery Mound Oxbow, which will consist of 6 weeks of work in Yr2. Compensation rates represent the actual labor rates of the identified personnel/position and are consistently applied to Federal and non-Federal activities. The percentages of effort are also provided in the below table.

Task Description	Yr1	Yr2	Yr3	Rate	Total
Technician 1: Task 1: Oxbow work	0 hrs	240 hrs	0 hrs	$20.01	$ 4,802.40
Technician 2: Task 1: Oxbow work	0 hrs	240 hrs	0 hrs	$20.01	$ 4,802.40
Technician 3: Task 1: Oxbow work	0 hrs	240 hrs	0 hrs	$20.01	$ 4,802.40
Technician 4: Task 1: Oxbow work	0 hrs	240 hrs	0 hrs	$20.01	$ 4,802.40
Total	**0 hrs**	**240 hrs**	**0 hrs**		**$ 19,209.60**
Technician 1: Percentage ea. year	0.0%	11.5%	0.0%		
Technician 2: Percentage ea. year	0.0%	11.5%	0.0%		
Technician 3: Percentage ea. year	0.0%	11.5%	0.0%		
Technician 4: Percentage ea. year	0.0%	11.5%	0.0%		
Totals each technician each year	$ -	$ 4,802	$ -		
Total 4 Technicians		$19,209.60			

Three *Range Tech crew members for juniper post recruitment* will provide labor for culling juniper trunks for posts for the brush weirs, which will consist of 3 weeks of work early in Yr2. Compensation rates represent the actual labor rates of the identified personnel/position and are consistently applied to Federal and non-Federal activities. The percentages of effort are also provided in the below table.

Task Description	Yr1	Yr2	Yr3	Rate	Total
Technician 1: Task 1: Juniper post culling	0 hrs	120 hrs	0 hrs	$20.01	$ 2,401.20
Technician 2: Task 1: Juniper post culling	0 hrs	120 hrs	0 hrs	$20.01	$ 2,401.20
Technician 3: Task 1: Juniper post culling	0 hrs	120 hrs	0 hrs	$20.01	$ 2,401.20
Total	**0 hrs**	**360 hrs**	**0 hrs**		**$ 2,401.20**
Technician 1: Percentage ea. year	0.0%	5.8%	0.0%		
Technician 2: Percentage ea. year	0.0%	5.8%	0.0%		
Technician 3: Percentage ea. year	0.0%	5.8%	0.0%		
Totals each year	$ -	$ 7,204	$ -		

One Delivery Driver (aided by *ALCC crews*) will drive a 14 CY dump truck to haul materials for the restoration practices, which will consist of 11.4 weeks of work in Yr2. Compensation rates represent the actual labor rates of the identified personnel/position and are consistently applied to Federal and non-Federal activities. The percentages of effort are also provided in the below table.

Task Description	Yr1	Yr2	Yr3	Rate	Total
Delivery driver: Task 1: Hauling of prunings for brush weirs (14 CY per load - 100 miles roundtrip, estimated time approx. 5.2 hours each load, 50 loads)	0 hrs	258.0 hrs	0 hrs	$20.01	$ 5,162.58
Delivery driver: Task 2: Delivery of rock (14 CY per load - 20 miles roundtrip, estimated approx. 2.6 hours each load, 33 loads)	0 hrs	87.0 hrs	0 hrs	$20.01	$ 1,740.87
Delivery driver: Task 3: Delivery of mulch (14 CY per load - 100 miles roundtrip, estimated time approx. 5.2 hours each load, 21 loads)	0 hrs	108.6 hrs	0 hrs	$20.01	$ 2,172.66
Total	**0 hrs**	**454 hrs**	**0 hrs**		**$ 9,076.11**
Percentage of each year	0.0%	21.8%	0.0%		
Totals each year	$ -	$ 9,076	$ -		

1.3.2 Fringe Benefits - $26,945.53

Percentage rate: The POI's fringe benefits costs are estimated at 25% of employee compensation costs and consists of FICA (6.20%), workers compensation (1.17%), unemployment insurance (5.4%), medical insurance (10.00%), dental insurance (0.36%), vision insurance (0.12%), Disability insurance (0.37%), Life insurance (0.24%), and retirement contributions (5.09%).

1.3.3 Travel – none proposed

1.3.4 Equipment - $102,383.02

The equipment rates are based upon the FEMA Schedule of Equipment Rates (https://www.fema.gov/assistance/public/tools-resources/schedule-equipment-rates), per the following description:

> The rates on this Schedule of Equipment Rates are for applicant-owned equipment in good mechanical condition, complete with all required attachments. Each rate covers all costs eligible under the Robert T. Stafford Disaster Relief and Emergency Assistance Act, 42 U.S.C. § 5121, et seq., for ownership and operation of equipment, including depreciation, overhead, all maintenance, field repairs, fuel, lubricants, tires, OSHA equipment and other costs incidental to operation. Standby equipment costs are not eligible

The Equipment Mobilization rate includes the costs of accumulating, coordinating, and returning all the necessary equipment for the various jobs. Three main equipment tasks include the Road Work, the Oxbow Work, and the Restoration Practices Work. Each mobilization typically consists of two operators using a transport semi-truck and a transport trailer, at a combined total of approximately $208.33/hr. After the completion of work for each mobilization is completed, a demobilization will be performed. The time out to this project site will be about 4 hours roundtrip per piece of equipment, for all three scopes of work, this equals approximately 72 hours for heavy equipment mobilization. The rate for a site with a 4-hour roundtrip is an estimated POI lump sum rate of $5,000, at 3 mobilizations, this totals $15,000.

Road Restoration Work: Three pieces of equipment are planned for use for road restoration for the expected duration of 200 hours (5 weeks): a D6 Bulldozer, at $152/hr (total $30,400), a Backhoe at $30.36/hr (total $6,072), and a Road Grader at $65.12/hr (total 13,024).

Restoration Practices Work: Three types of materials require delivery for the restoration practices: Hauling of prunings for brush weirs (14 CY per load - 100 miles roundtrip, estimated approx. 50 loads = total $3,929.50), Delivery of rock (14 CY per load - 20 miles roundtrip, estimated approx. 33 loads = total $2,600.95), Delivery of mulch (14 CY per load - 100 miles roundtrip, estimated approx. 21 loads = total 1,625.16).

Oxbow Work: Three pieces of equipment are planned for use for the Oxbow work: Oxbow Work: Delivery of plant material (14 CY per load - 100 miles roundtrip estimated approx. 50 loads = total $3,929.50), and two others which will be rented, see description in "section 1.3.7 Other Costs".

Continued next page

1.3.5 Materials and Supplies - $78,290.74

The materials and supplies support two phases of the restoration implementation: The Oxbow Work and the Restoration Practices Work.

The Oxbow work:

Oxbow Work: Wood piles ($15/per foot, 30' posts)	$ 450.00	50	ea	$ 22,500.00
Oxbow Work: Wood posts and fencing for sediment fence ($12/per foot, 20' posts)	$ 240.00	50	ea	$ 12,000.00
Oxbow Work: Fence wire (8'x100' rolls)	$ 400.00	4	rolls	$ 1,600.00
Oxbow Work: Miscellaneous fasteners	$ 300.00	1	ea	$ 300.00

The Restoration Practices work:

Restoration Practices: Rock for stone lines (1 yd^3 per 30 lineal feet, 6,700 l.f)	$ 55.00	223	cy	$ 12,283.33
Restoration Practices: Rock for one rock dams (2 cy per structure, 120 est. structures)	$ 55.00	240	cy	$ 13,200.00
Restoration Practices: Native Mulch ($35/cy, 15' wide @1" thick mulch strip at stone lines)	$ 40.00	310	cy	$ 12,407.41
Restoration Practices: Soil testing	$ 500.00	6	ea.	$ 3,000.00
Restoration Practices: Water testing	$ 1,000.00	1	ea.	$ 1,000.00

1.3.6 Contractual - $2,882,756.18

Included below is are all contracts and subawards, a description of the services to be obtained and the applicability or necessity of each to the project, and the procurement/contract method anticipated. Find the total estimated costs below and section 1.2 “Budget Proposal” for the bases used to develop the estimate. Find the detailed estimates for subawards over $250,000 included individually in section 1.3.6.1 directly following this section.

Continued next page

Reclamation EWRP TOTAL GRANT				***Fed/Non-Fed Match worksheet (Non-Fed from recipient in black, from partners in blue)***	
BUDGET ITEM DESCRIPTION			TOTAL COST	NON-FED MATCH	RECLAMATION FUNDING
CONTRACTUAL/ CONSTRUCTION / SUBAWARDS		***subtotal->***	$ 2,882,756.18	$ 526,415.48	$ 2,356,340.70
Subaward - 1) Tribal Historic Preservation Officer		*subtotal->*	$ 62,430.20	$ 62,430.20	$ -
Dr. Henry Walt, archaeologist and Tribal Historic Preservation Officer, overall review of work in coordination with sacred and ancestral sites and coordinate the archaeological surveys with the SHPO consultant. This includes collaboration on and review of final design and milestone scheduling, team meetings, review of mock-ups, and review of installation on site. Contract method: non-competitive sole-source.					
Subaward - 2) SHPO consultant		*subtotal->*	$ 56,091.50	$ 56,091.50	$ -
Mike Marshall has worked with Dr. Walt on previous archaeological surveys, and will lead the survey effort for NM State Historic Preservation Office (SHPO) approvals. Contract method: non-competitive sole-source. Contract method: non-competitive sole-source.					
Subaward - 2) Alamosa Land Institute		*subtotal->*	$ 204,970.21	$ 127,741.36	$ 77,228.85
Richard Davidson, MLA, a landscape architect and ecological planner, is the overall project designer and coordinator and Dr. Connie Maxwell, CRP, PhD, a community and ecological regional planner, is a technical advisor on the project. ALI will lead the restoration design, the overall project coordination, the creation and organization of the site visits for survey for final design and the workshop trainings, the direction of monitoring of base conditions, content developement for the community stakeholder meetings, and the creation of the reporting. Contract method: non-competitive sole-source.					
Subaward - 3) Resources Management Services		*subtotal->*	$ 49,985.40	$ 6,532.10	$ 43,453.30
Kirk Gadzia is the rangeland health consultant for the project and will lead the rangeland management planning effort and the related content for the creation and organization of the site visits for survey for final design and the workshop trainings, the direction of monitoring of base conditions, content development for the community stakeholder meetings, and the creation of the reporting. Contract method: non-competitive sole-source.					
Subaward - 4) Revegetation Agronomist		*subtotal->*	$ 44,768.90	$ 5,469.10	$ 39,299.80
David Dreesen is the revegetation agronomist for the project and will lead the vegetation species selection and establishment process. Contract method: non-competitive sole-source.					
Subaward - 5) NV5		*subtotal->*	$ 243,188.78	$ -	$ 243,188.78
NV5 will lead the NEPA process, including the Biological and Paleontogolical surveys and the NEPA document writing. NV5 in this process will also establish the vegetation monitoring design. Contract method: non-competitive sole-source.					
Subaward - 6) High Desert Native Plants (HDNP)		*subtotal->*	$ 679,815.65	$ -	$ 679,815.65
HDNP's Mike Gaglio, biologist, will conduct surveys and design the keyline plowing approach, collaborate in training the crews for the Restoration Work including surveying for the contour stone lines work, and collaborate in assessing the results of the project. The detailed budget cost table will follow this section. Contract method: non-competitive sole-source.					
Subaward - 7) Rangeland Hands, Inc.		*subtotal->*	$ 92,830.00	$ -	$ 92,830.00
Rangeland Hand's Steve Carson will lead the Road Restoratin and Oxbow Work, including conducting trainings and reviewing the road restoration work and supervising the Oxbow Work. Contract method: non-competitive sole-source.					
Subaward - 8) Ancestral Lands Conservation Corps		*subtotal->*	$ 918,680.40	$ 268,151.22	$ 650,529.18
Ancestral Lands Conservation Corps (ALCC) will recruit and train the interns and the crews for the restoration installations. The detailed budget cost table will follow this section. Contract method: non-competitive sole-source.					

Continued next page

Reclamation EWRP TOTAL GRANT				Fed/Non-Fed Match worksheet (Non-Fed from recipient in black, from partners in blue)	
BUDGET ITEM DESCRIPTION			TOTAL COST	NON-FED MATCH	RECLAMATION FUNDING
Subaward - 9) Hydra Aquatic Inc.		*subtotal->*	***$ 529,995.14***	***$ -***	***$ 529,995.14***
Hydra Aquatic Inc. will supply the plant material for the project and lead the installation of the riparian plantings at the Oxbow. Contract method: non-competitive sole-source.					
Consultant/Contr - 10) Mauldin Drilling		*subtotal->*	***$ 57,064.50***	***$ -***	***$ 57,064.50***
Mauldin Drilling will lead the restoration of the well adjacent to the Pottery Mound. Procurement method: competitive process.					

1.3.6.1 Subaward Budget Cost detail on contracts above $250,000

High Desert Native Plants

HDNP's Mike Gaglio, biologist, will conduct surveys and design the keyline plowing approach, collaborate in training the crews for the Restoration Work.

Reclamation EWRP TOTAL GRANT					Fed/Non-Fed Match worksheet (Non-Fed from recipient in black, from partners in blue)	
BUDGET ITEM DESCRIPTION	COMPUTATION $/Unit and Unit	Qnty	Quantity Type	TOTAL COST	NON-FED MATCH	RECLAMATION FUNDING
Subaward - 6) High Desert Native Plants			*subtotal->*	***$ 679,815.65***	***$ -***	***$ 679,815.65***
Salaries and Wages, including fringe			*subtotal->*	***$ 164,700.00***	***$ -***	***$ 164,700.00***
Mike Gaglio, survey and design, training, including surveying for contour stone lines	$150.00	248	hours	$ 37,200.00		$ 37,200.00
Mike Gaglio, Keyline work (1 acre/hr, 800)	$150.00	800	hours	$ 120,000.00		$ 120,000.00
GIS Tech, Lara Barnes, preparation for keylining	$75.00	100	hours	$ 7,500.00		$ 7,500.00
Travel			*subtotal->*	***$ 34,750.65***	***$ -***	***$ 34,750.65***
Mileage - 41 roundtrips (530 ea. Roundtrip)	$ 0.655	16,430	miles	$ 10,761.65		$ 10,761.65
Travel - Lodging - GSA rate Albuquerque	$ 121.00	115	nights	$ 13,915.00		$ 13,915.00
Travel - M&IE - GSA rate Albuquerque	$ 69.00	146	days	$ 10,074.00		$ 10,074.00
Equipment			*subtotal->*	***$ 280,000.00***	***$ -***	***$ 280,000.00***
Keyline Imprinting Seeding, per acre (includes tractor and all equipment in one rate per acre)	$350.00	800	acres	$ 280,000.00		$ 280,000.00
Supplies/Materials			*subtotal->*	***$ 160,000.00***	***$ -***	***$ 160,000.00***
Seeds	$ 200.00	800	acres	$ 160,000.00		$ 160,000.00
GRT - Pueblo of Isleta	**6.3125%**			***$ 40,365.00***	***$ -***	***$ 40,365.00***

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Ancestral Lands Conservation Corps

Ancestral Lands Conservation Corps (ALCC) will recruit and train the interns and the crews for the restoration installations. The detailed budget cost table will follow this section.

Reclamation EWRP TOTAL GRANT						***Fed/Non-Fed Match worksheet (Non-Fed from recipient in black, from partners in blue)***	
BUDGET ITEM DESCRIPTION	COMPUTATION $/Unit and Unit	Qnty	Quantity Type	TOTAL COST		NON-FED MATCH	RECLAMATION FUNDING
Subaward - 8) Ancestral Lands Conservation Corps			*subtotal->*	$ 918,680.40		$ 268,151.22	$ 650,529.18
Salaries and Wages			*subtotal->*	$ 651,658.64		$ 216,303.31	$ 435,355.33
Crew Leader (2025) - (1)	$ 800.00	52	weeks	$ 41,600.00			$ 41,600.00
Assistant Crew Leader (2025) - (1) - Living and Housing Allowance	$ 700.00	52	weeks	$ 36,400.00			$ 36,400.00
Members-2025 Crews (4) - Living and Housing Allowance	$ 1,418.38	208	weeks	$ 295,023.31		$ 159,823.31	$ 135,200.00
Intern-2024 IPs (1) - Living & Housing Allowance	$ 1,180.56	48	weeks	$ 56,666.67		$ 18,266.67	$ 38,400.00
Intern-2025 Ips (1) - Living & Housing Allowance	$ 1,217.22	48	weeks	$ 58,426.67		$ 18,826.67	$ 39,600.00
Intern-2026 IPs (1) - Living & Housing Allowance	$ 1,253.89	48	weeks	$ 60,186.67		$ 19,386.67	$ 40,800.00
Allocated Staff-2024 IPs	$ 48.29	48	weeks	$ 2,318.07			$ 2,318.07
Allocated Staff-2025 IPs	$ 52.67	48	weeks	$ 2,528.33			$ 2,528.33
Allocated Staff-2026 IPs	$ 57.05	48	weeks	$ 2,738.58			$ 2,738.58
Allocated Staff-2025 crews	$ 1,841.74	52	weeks	$ 95,770.35			$ 95,770.35
Fringe			*subtotal->*	$ 75,633.85		$ -	$ 75,633.85
Crew Leader (2025) - (1)	$ 135,200.00	0.2016	percent	$ 27,256.32			$ 27,256.32
Assistant Crew Leader (2025) - (1)	$ 41,600.00	0.1390	percent	$ 5,782.40			$ 5,782.40
Crews	$ 135,200.00	0.1390	percent	$ 18,792.80			$ 18,792.80
Interns (13.9% plus 40/week for health)	$ 118,800.00	0.1390	percent	$ 16,513.20			$ 16,513.20
Intern Health Insurance	$ 40.00	144	percent	$ 5,760.00			$ 5,760.00
Allocated Staff-2024 IPs	$ 2,318.07	0.2016	percent	$ 467.32			$ 467.32
Allocated Staff-2025 IPs	$ 2,528.33	0.2016	percent	$ 509.71			$ 509.71
Allocated Staff-2026 IPs	$ 2,738.58	0.2016	percent	$ 552.10			$ 552.10
Travel			*subtotal->*	$ 32,112.00		$ -	$ 32,112.00
Allocated Travel - 2025 crews	$ 612.00	52	weeks	$ 31,824.00			$ 31,824.00
Allocated Travel - Individual Placements	$ 2.00	144	weeks	$ 288.00			$ 288.00
Equipment - none included							
Supplies/Materials			*subtotal->*	$ 46,854.00		$ -	$ 46,854.00
Allocated Supplies - 2025 crews	$ 619.50	52	weeks	$ 32,214.00			$ 32,214.00
Allocated Supplies - Individual Placements	$ 60.00	144	weeks	$ 8,640.00			$ 8,640.00
Additional Supplies - Individual Placements	$ 6,000.00	1	ea	$ 6,000.00			$ 6,000.00
Indirect *- basis (Reclamation request): Staff + Staff benefits + travel + supplies + first $25k of subrecipient if applicable (value of indirect on crews and Ips are match)*	$ 252,706.78	23.97%		$ 112,421.90		$ 51,847.90	$ 60,574.00
No GRT, as ALCC are a non-profit and exempt				$ -		$ -	$ -

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Hydra Aquatic Inc.

Hydra Aquatic Inc. will supply the plant material for the project and lead the installation of the riparian plantings at the Oxbow. Contract method: non-competitive sole-source.

Reclamation EWRP TOTAL GRANT					***Fed/Non-Fed Match worksheet (Non-Fed from recipient in black, from partners in blue)***	
BUDGET ITEM DESCRIPTION	COMPUTATION $/Unit and Unit	Qnty	Quantity Type	TOTAL COST	NON-FED MATCH	RECLAMATION FUNDING
Subaward - 9) Hydra Aquatic Inc.			*subtotal->*	***$ 529,995.14***	***$ -***	***$ 529,995.14***
Salaries and Wages, including fringe			*subtotal->*	***$ 202,920.00***	***$ -***	***$ 202,920.00***
Project Manager	$ 150.00	262	hours	$ 39,300.00		$ 39,300.00
Laborer (6 People)	$ 85.00	1572	hours	$ 133,620.00		$ 133,620.00
Design of irrigation system	$ 30,000.00	1	ea.	$ 30,000.00		$ 30,000.00
Travel			*subtotal->*	***$ 7,696.25***	***$ -***	***$ 7,696.25***
Travel (2 trucks)	$ 0.655	11,750	hours	$ 7,696.25		$ 7,696.25
Equipment			*subtotal->*	***$ 15,800.00***	***$ -***	***$ 15,800.00***
Equipment (Power Augers & Side x Side) for Coyote Willow plantings	$ 3,500.00	2	ea.	$ 7,000.00		$ 7,000.00
Equipment (Power Augers & Side x Side) for Goodings Willow plantings	$ 2,800.00	1	ea.	$ 2,800.00		$ 2,800.00
Equipment for irrigation system (2 Side x Sides)	$ 1,500.00	4	ea.	$ 6,000.00		$ 6,000.00
Supplies/Materials			*subtotal->*	***$ 265,458.89***	***$ -***	***$ 265,458.89***
Supplies/Materials (Willow Poles & Amendments)	$ 7.50	2500	poles	$ 18,750.00		$ 18,750.00
Supplies/Materials (Goodings W. & Cottonwood Poles & Amendments)	$ 25.00	250	poles	$ 6,250.00		$ 6,250.00
Grass plugs required per 18" o.c. spacing (est. 1 per 2.25 sf, total 100,000 s.f.)	$ 2.00	44444	plugs	$ 88,888.89		$ 88,888.89
Giant Sacaton 10 Cl plug	$ 9.00	5000	plugs	$ 45,000.00		$ 45,000.00
Supplies/Materials (Irrigation Components)	$ 106,570.00	1	system	$ 106,570.00		$ 106,570.00
GRT - Albuquerque	7.75%			***$ 38,120.00***	***$ -***	***$ 38,120.00***

1.3.7 Other Costs

Stipend for Pueblo member Valentino Jaramillo, advisor on culturally valued plants of $250/meeting for an anticipated 10 meetings totals $1,000.

For the Oxbow Work, two pieces of equipment shall be rented, a Pile driver rental estimated per regional prices at $3005 per week for 5 weeks (total $15,025), and a Borer and skid steer rental estimated per regional prices at $2,155.38 per week for 5 weeks (total $10,776.90).

1.3.7 Indirect Costs

Modified Total Direct Cost (MTDC) means all direct salaries and wages, applicable fringe benefits, materials and supplies, services, travel, and other costs such as the stipends and equipment rental costs included in this project. The MTCD for the recipient excludes capital equipment purchases and all subawards / subcontracts. Find attached the Federal negotiated indirect cost rate contract.

1.4 Pre-award costs

The match from the Pueblo of Isleta partially consists of 638 funds that the team anticipates using to start survey and mock-up activity on this project, which has been reviewed by Reclamation's Tribal Liason, Tracey Heller. These costs will be reviewed if awarded with the awarding Grants Officer for final approval.

1.5 Federal negotiated indirect cost rate contract attachments

Find attached separately to the application the Federal negotiated indirect cost rate contract for the recipient and Ancestral Lands Conservation Corps.