Proposal

Funding Opportunity Announcement No. BOR-DO-20-F013

Development of Tribal Groundwater Resources for Warm Springs Public Water Supply

Submitted to:

U.S. Department of the Interior
Bureau of Reclamation
Native American and International Affairs Office
Denver, Colorado

Prepared by:
Warm Springs Power & Water Enterprises
A wholly owned entity of
The Confederated Tribes of Warm Springs
Warm Springs, Oregon

Project Manager
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January 2, 2020

Table of Contents

Technical Proposal and Evaluation Criteria

Date: January 2, 2020
Applicant Name: The Confederated Tribes of Warm Springs
City: Warm Springs
Counties: Jefferson, Wasco
State: Oregon

Executive Summary

The Confederated Tribes of Warm Springs are pleased to submit this proposal in response to Reclamation's Native American Affairs Technical Assistance Program FY 2020 Funding Announcement.

Decreasing water quality in the Deschutes River, combined with aging water treatment infrastructure, has led to regulatory violations for the Warm Springs Public Water System, as well as drinking water-related health and safety risks for the Warm Springs community and tribal members. These difficulties have recently become acute and the Tribes have had to issue four water boil notices in 2019, with the latest extending over 2 months.

In response to these water supply challenges, the Tribes propose to investigate the development of our federally-reserved groundwater resources as a cleaner water source for the Water Springs Public Water System. Discussions between the senior management of the Tribal Public Utilities Department, Tribal Natural Resources Department, and Warm Springs Power and Water Enterprises have identified the following tasks to achieve this objective:

- Quantify the long-term firm water supply from the new groundwater source and compare this resource against the projected future public water supply demands
- Verify that the water quality from the new groundwater source is adequate for public water supply treatment
- Investigate potential impacts to nearby groundwater and surface water rights
- Develop a preliminary design and economic analysis for the well field and conveyance infrastructure

This project will greatly assist the Tribes develop, manage, and protect our tribal water and related resources. Funding provided under the Technical Assistance Program will allow the Tribes to perform the necessary water supply, water quality, and water rights investigations, as well as the completion of a preliminary design and economic analysis, to ensure a successful large-scale groundwater development project.

The newly developed well and conveyance infrastructure will use the best available science through real-time monitoring of water deliveries, thereby increasing water reliability consistent with section 4 of the October 19, 2018, Presidential Memorandum on Promoting the Reliable Supply and Delivery of Water in the West's goal of promoting the expanded use of technology for improving the accuracy and reliability of water and power deliveries.

The project duration is one year from the award date and all work is expected to be completed by the end of March 2021. This project is not located on a Federal facility.

Background Data

The Warm Springs Indian Reservation covers 644,000 acres in north-central Oregon and has a total population of approximately 4,000. Warm Springs is an unincorporated town, on the eastern edge of Reservation.

The Deschutes River follows the Reservation's eastern boundary and is the largest water resource of the region, with an average discharge measured upstream from Warm Springs of 4,570 cubic feet per second. There are several hydroelectric dams on the Deschutes River, including the Round Butte Dam, Pelton Dam, and the Reregulating Dam, which are jointly owned by Portland General Electric and the Confederated Tribes of Warm Springs.

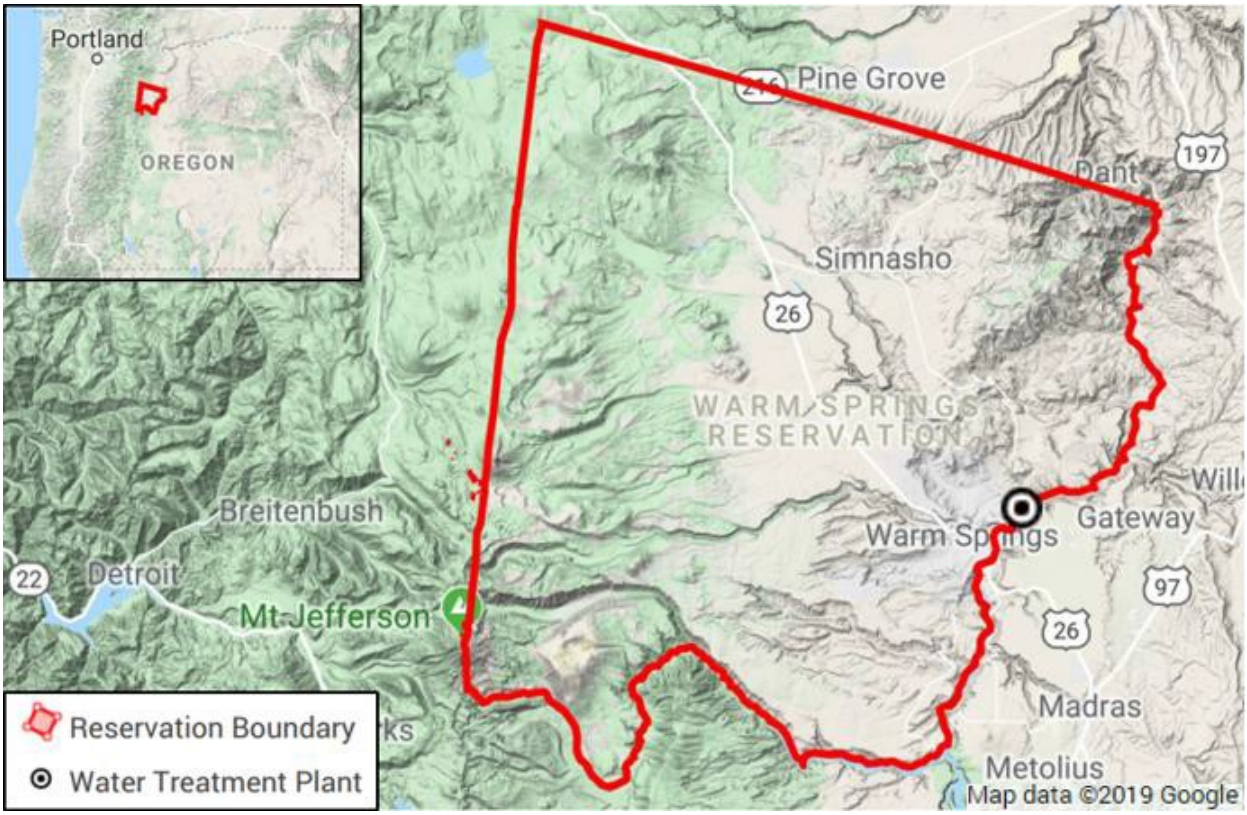

Figure 1. Warm Springs Reservation and surrounding towns

To ensure the protection of the surface waters, the Tribe has established "Water Quality Standards, Beneficial Uses, and Treatment Criteria" (Warm Springs Tribal Code 432, Ordinance No. 80, March 21, 2006). Within this ordinance, the Tribe has adopted an Antidegradation Policy for surface waters to protect the beneficial uses of the water. Water quality standards include Dissolved Oxygen, Temperature, Turbidity, pH, and other contaminants of concern.

The Warm Springs water system serves a wide-ranging area, extending north and south of the Water Treatment Plant, and covering approximately 25 square miles of Jefferson and Wasco Counties. The Deschutes River serves as the source water for the Dry Creek Water Treatment Plant.

Warm Springs have recently been overwhelmed with public water supply issues. The Warm Springs Water Treatment Plan has incurred several Safe Drinking Water Act (SDWA) violations. Several of these violations stem from the difficulty in treating the system's current water source, the Deschutes River. These violations, in combination with failing infrastructure, have recently prevented the delivery of clean water to public, with the Tribes having to issue four water boil notices in 2019.

Figure 2. Location of the Dry Creek Water Treatment Plant

Fortunately, the Tribes were granted significant water rights through the "Confederated Tribes of the Warm Springs Reservation Water Rights Settlement Agreement" (November 17, 1997). This agreement between the Tribes, the State of Oregon, and the United States clarifies that the Tribes may use up to 200 cfs from the Deschutes and Metolius Rivers, and the Pelton Lakes combined. Additionally, a combined total of up to 250 cfs may be used for out-of-stream uses from surface water within the boundary of the reservation, including the Warm Springs River, and Shitike Creek. This agreement goes on to state the following in reference to the Tribes' use of groundwater:

> *The Tribal Reserved Water Right described in Article IV-B. may be exercised in whole or in part from ground water within the Reservation. Except for minor withdrawals which under state law would be exempt uses as that term is defined in ORS 537.545 (which shall not be counted against the sums set forth in Articles IV.B.3 and IV.B.4.), it shall be presumed that ground water withdrawals within the Reservation are hydrologically connected to the rivers and streams running through and bordering the Reservation and shall be counted against the quantities set forth in Article IV.B.3. or IV.B.4. as is appropriate on a gallon for gallon basis, unless it can be established that there is no connection.*

As a result of join meetings between the Tribal Public Utilities Department, the Tribal Natural Resources Department, and Warm Springs Power and Water Enterprises, the Tribes have identified the need to exhaustively determine if this groundwater right can be developed into a municipal water source that more adequately serves tribal members in the Warm Springs area.

The Tribes through Warm Springs Power & Water Enterprises have an excellent past working relationship with Reclamation. The Tribes are currently performing a USBR WaterSMART Water Marketing Strategy Grant. This grant was awarded in September of 2017 through Reclamation's Denver Office and is being used to explore the concept of leasing Tribal water to a nearby irrigation district to help alleviate basin water shortages.

Technical Project Description and Milestones

This project provides a critical step in the effort to develop the Tribes' groundwater rights as a cleaner water source for the Reservation and reduce water quality-related health and safety risks for the community and tribal members. The effort proposed herein will perform the necessary water supply, water quality, and water rights investigations, followed by the completion of a preliminary design and economic analysis, to ensure project success. This project does not include funding for the final engineering design and construction phases but is required as a prerequisite for their completion. Through a coordinated effort between the Tribal Public Utilities Department, the Tribal Natural Resources Department, and Warm Springs Power and Water Enterprises, the Tribes propose the completion of the following four tasks in order to meet this objective.

Task 1: Groundwater Supply Quantification. Ensuring that there is adequate long-term water supply is crucial to a successful groundwater development project. The Tribes have identified a potentially highly productive area northwest of Warm Springs. Fortunately, two wells have been developed in this location and will yield well drilling logs, pump test results, and water level data. Additional groundwater data, including well logs, water-table levels, flow rates, and water age indicators, will be collected from online sources (e.g. United States Geological Survey, Oregon Water Resources Department, etc.), tribal water monitoring data, and field sampling events at existing wells.

These data will then be analyzed to quantify the long-term groundwater supply in the area of interest. Depending on the level of data available, analytical or simplified numerical modeling techniques will be used to perform this analysis. Also, water age indicators will be used to help determine the interconnection between this groundwater source and surface flows. Task 1 is expected to be completed within 6 months of the award date.

Task 2: Groundwater Quality Characterization. Adequate water quality is also critical to a successful groundwater development project. The proposed study will characterize the water quality of groundwater sources in the area of interest through data collection and analysis. Groundwater quality information will be collected from online sources and tribal water monitoring data. Field sampling events at existing wells may also be used test for additional parameters.

These water quality data will then be analyzed to determine the effectiveness of utilizing the new groundwater source for the Tribes' public water supply. The water quality analysis will closely investigate costs and potential issues with treating observed levels of regulated contaminate concentrations. Task 2 is expected to be completed within 6 months of the award date.

Task 3: Water Rights Review. Water allocations in the Deschutes Basin are based on a complex set of federal and state water rights, including Endangered Species Act (ESA) instream flow requirements and settlement agreements. An investigation will be performed to look for any potential complications related to the Tribes' ability to utilize our water rights granted in the 1997 Water Settlement Agreement for the development of these new groundwater sources.

Potential impacts to nearby groundwater and surface water rights will first be quantified using data gathered under Task 1. Following this all water rights and settlement agreements associated with

these impacted groundwater and surface water resources will then be thoroughly investigated. Task 3 is expected to be completed within 9 months of the award date.

Task 4: Preliminary Design and Economic Analysis. The findings and data gathered from Tasks 1, 2, and 3 will be used to develop a preliminary design and economic analysis for the project. The preliminary design will include the suggested well-field layout, well pump capacities, conveyance pipe layout and sizing, and estimated booster pump stations locations and capacities.

Costs associated with the preliminary design will then be estimated. Capital expenses associated with well development and water conveyance infrastructure will be estimated using data from similar projects and published cost data (e.g. RSMeans; https://www.rsmeans.com). Ongoing expenses (e.g. energy costs for pumping and booster stations, O&M, etc.) will also be quantified. Task 4 is expected to be completed within 12 months of the award date.

The following table provides a detailed view of the subtasks and milestones associated with the project, as well as their expected completion dates.

Table 1. Expected task and subtask completion milestones

Task Description	**Apr-20**	**May-20**	**Jun-20**	**Jul-20**	**Aug-20**	**Sep-20**	**Oct-20**	**Nov-20**	**Dec-20**	**Jan-21**	**Feb-21**	**Mar-21**
Pre-award Reviews and Clearances												
Consultant Contracting												
Task 1 : Groundwater Supply Quantification												
Subtask 1.1 - Groundwater Supply Data Gathering												
Subtask 1.2 - Groundwater Supply Modeling/Quantification												
Task 2 : Groundwater Quality Characterization												
Subtask 2.1 - Groundwater Quality Data Gathering												
Subtask 2.2 - Groundwater Quality Analysis												
Task 3 : Water Rights Review												
Subtask 3.1 - Impact Analysis												
Subtask 3.2 - Water Rights Use Analysis												
Task 4 : Preliminary Design and Economic Analysis												
Subtask 4.1 - Preliminary Design of Infrastructure												
Subtask 4.2 - Preliminary Economic Analysis of Project												
Final Presentation and Report												

Evaluation Criteria

Evaluation Criterion A — Project Need

How does federal funding assist in developing the project?

The Tribes have recently been overwhelmed with public water supply issues. In October of 2018 an initial study was performed to look into water source alternatives (Warm Springs – Dry Creek Water Treatment Plant Evaluation, 2018). While much of the information generating though this effort is helpful, further analysis needs to be undertaken to build upon the study's off-site well development findings. Federal funds would make enable the Tribes to perform this crucial step toward developing our federally-reserved water rights for our Reservation's water supply.

What is the magnitude of the impacts if the proposed project is not funded (e.g., public health and safety, regulatory, and social risk etc.)? Does the project assist in addressing health and safety of the tribe and its members, and if so, how?

Decreasing water quality in the Deschutes River combined with the Tribes' aging water treatment infrastructure has created drinking water related health and safety risks for the Warm Springs community and tribal members. This project works toward providing groundwater as a cleaner public water source, thereby reducing these water quality related health and safety risks for 3,800 individuals currently served by the Warm Springs Water Treatment Plan and a total projected population of about 9,200 individuals to be served in 40 years.

What is the timeframe for completing the critical action?

Frequent water supply emergencies, such as an inoperable system for three months in 2019, have created an urgent need for improved water supply and treatment. The Tribes would like to perform this groundwater source development study as soon as possible because we are currently making large decisions regard investments to our public water supply infrastructure. The Tribes may be able to provide our members with much cleaner water by incorporating groundwater resource development as part of our overall strategy to provide improved public water supply.

Does project assist in complying with regulatory requirements related to water and water resources, and if so, how?

The Warm Springs Water Treatment Plant has incurred several SDWA violations over the past few years. Several of these violations stem from the difficulty in treating the current water source, the Deschutes River. This project works toward the development and use of groundwater as a cleaner water source that will be easier to treat to the level of EPA regulations.

What is the status of the tribe's capacity to manage, develop and protect its water and related resources?

The Tribes have a high degree of capacity to manage, develop and protect our water and related resources. The Tribes' Natural Resources Planning Office has worked diligently to ensure strategic

planning is in place and is executed for balanced protection, use and enhancement to all Tribal natural resources. Resources are managed as sustainable assets available for cultural, subsistence, economic and social purposes or opportunities in perpetuity consistent with the Tribes' sovereign and treaty status.

Evaluation Criterion B — Project Benefits

Does the project improve development, management, and/or protection of tribal water and related resources, and if so, how?

This project greatly improves the development, management, and protection of tribal water and related resources by developing a strategy for utilizing previously undeveloped tribal groundwater resources for public water supply. Once these water rights are developed and utilized by the Tribe, they will be managed and protected under our established tribal water resources-related ordinances.

Does the project build or enhance the tribe's internal capacity to manage, develop and protect its water and related resources, and if so, how?

This project builds and enhances the Tribe's internal capacity to manage, develop and protect our water and related resources due to the large amount of additional knowledge and data that will be generated though this project. The final report discussing the project's methodology and findings, as well as all data generated, will be made readily available to all Tribal departments involved with the management, development, and protection of natural resources.

Does the project include data collection related to water quality? How will data be analyzed and used to benefit the tribe?

This project does include data collection related to water quality. Groundwater data will be collected from online sources (e.g. https://www.oregon.gov/owrd/Pages/index.aspx, https://maps.waterdata.usgs.gov, etc.), tribal water monitoring, and field sampling events.

Characterizing the level of water quality is extremely important for project planning purposes. These identified groundwater sources must have a high degree of water quality in order to justify the costs associated with their development and conveyance. The water quality data gathered under this effort will be analyzed and incorporated into the comprehensive economic analysis.

These data will also be readily available to other tribal departments.

How will data analyses inform management decisions/ approaches?

This project will provide critical information related to the feasibility of the Tribe's development of our federally reserved groundwater rights as a public water supply source. As described further in the Technical Project Description and Milestones section, management decisions and approaches will be highly dependent on the results from the four data analyses performed under this project: water quantity, water quality, water rights, economics.

Does the project improve water reliability, and if so, how and to what extent?

The project improves water reliability by developing unutilized groundwater resources instead of relying on the variable water supply and quality of the Deschutes River. While the water supply and quality of the Deschutes River is highly dependent on snowpack, runoff, instream flow requirements, and irrigation demands, the project will quantify and allow the Tribes to plan on the firm water supply and water quality of groundwater resources.

Does the project assist with addressing current or future water shortages, and if so, how? Will the project build long-term resilience to drought, and if so, how?

The project assists with addressing current or future water shortages and builds long-term resilience to drought by developing unutilized groundwater resources instead of relying on the variable water availability and quality of the Deschutes River. This effort will lead to the Tribes' having two sources of water, as opposed to a single water source, in times of drought.

Will the project make additional water supplies available, and if so how?

The project will work toward developing additional groundwater resources on the Reservation. These are previously undeveloped resources and will make additional water supplies available.

What is the estimated quantity of additional supply the project will provide and how was this calculated?

The estimated maximum quantity of additional supply is the projected average future demand of the Tribes' water treatment facility of about 5 million gallons per day or 5,600 acre-feet per year.

What percentage of the total water supply does the additional water supply represent?

The goal of this effort is to develop additional groundwater sources for 100% of the Tribes' public water supply demand currently served by the Warm Springs Water Treatment Facility.

Does the project improve tribal water system efficiencies and promote water conservation, and if so, how?

The use of cleaner source water may help conserve both water and energy during both the pre-treatment and wastewater treatment processes.

What is the estimated average annual quantity of conserved water and how was this calculated?

This project will investigate if the new groundwater sources are disconnected from Deschutes River Basin surface flows. If this is proven to be the case and the groundwater sources can adequately provide flow for Warm Spring's future water supply, this project will conserve a projected demand of up to 5,600 AF per year of water from the Deschutes River.

How will the conserved water be used?

Conserved water will not be diverted from the Deschutes River and could be used for other stakeholders in the region.

Does the project reduce conflicts between water users, and if so, how?

Through the development of alternative water sources, the project decreases demand on the Deschutes River and increases flow and water quality, thereby reducing demands and constraints on the basin's water users.

Does the project address heightened competition for finite water supplies or issues related over-allocation water rights, and if so, how?

Through the development of alternative water sources, the project decreases demand on the Deschutes River and increases flow and water quality, thereby addressing heightened competition for finite water supplies or issues related over-allocation water rights.

Does the project promote and encourage collaboration among parties in a way that helps increase the reliability of the water supply, and if so, how?

Through the development of alternative water sources, the project decreases demand on the Deschutes River and increases flow and water quality. Reduced demands and constraints on the basin's water users may ease tension in the basin and encourage collaboration.

Will the project help prevent a water-related crisis or conflict, and if so, how?

Through the development of alternative water sources, the project decreases demand on the Deschutes River and increases flow and water quality, thereby helping prevent a water-related crisis or conflict.

Is there frequently tension or litigation over water in the basin?

There is frequently tension or litigation over water in the basin. Most recently, reductions in habitat for the Oregon Spotted Frog and Summer Steelhead have caused significant tension stemming from reduced water available for junior irrigation water rights.

Are there non-tribal partners in the project and what is their roles?

There are no non-tribal partners included in this project at this time.

Is the project supported by existing water resource management plans, and if so, how?

On August 3, 1967, the Tribes approved and adopted the "Water Resources Inventory and Water Management Plan for the Warm Springs Indian Reservation". This project directly supports the specified purpose of this existing water resources management plan by more clearly defining

specific uses for tribal groundwater rights for the clear and direct benefit individuals and the community.

Does the project protect and enhance the environment, and if so, how? Projects that involve riparian and aquatic habitat improvements, must also improve water quality and quantity. Describe the environmental benefits as they relate to improved water quality and quantity.

The project will indirectly cause environmental benefits related to riparian and aquatic habitat because the Tribes will reduce or eliminate public water supply diversions from the Deschutes River, thereby maintaining a healthier river flow. This will also help dilute treated wastewater effluent.

Evaluation Criterion C — Project Implementation

Describe the implementation plan for the project that includes an estimated schedule that shows the stages and duration of the proposed work. The implementation plan should also include major tasks and milestones, identify staff with appropriate technical and project management expertise and describe their qualifications and roles in the proposed project or activity.

Table 1 in the Technical Project Description and Milestones section (pg. 7 of this proposal) provides a detailed estimated schedule showing the stages and duration of all tasks and subtasks.

As further discussed in the Budget Proposal, all tasks will be performed by a competent water resources engineering firm under the direct supervision of the project manager, Mr. Jim Manion. Please refer to the contractual section of Budget Proposal and Appendix A for consultant qualifications.

Describe any plans to contract activities. Describe the procurement standards that will be used to select successful contractors.

As further discussed in the Budget Proposal, the Tribes will contract this work to a competent water resources engineering consultant. Warm Springs Power and Water Enterprises will follow procurement standards identical to those used for the USBR WaterSMART Water Marketing Strategy Grant.

Describe any permits that will be required, along with the process for obtaining such permits.

There are no permits that will be needed to be obtained as part of this project.

Identify and describe any engineering or design work performed specifically in support of the proposed project.

This project is complete composed of engineering and design work. All work is identified and described under the four task descriptions in the Technical Project Description and Milestones section.

Describe any new policies or administrative actions required to implement the project.

There are no new policies or administrative actions required to implement the project. The results of this project will better inform future policies or administrative actions related to the development of groundwater for public water supply.

Identify staff with appropriate technical and project management expertise and describe their qualifications and roles in the proposed project or activity.

This project will be coordinated effort between the Tribal Public Utilities Department, the Tribal Natural Resources Department, and Warm Springs Power and Water Enterprises. The overall effort will be managed by Mr. Jim Manion. In 1986 Mr. Manion was appointed as the General Manager of Warms Springs Power & Water Enterprises (WSPWE) the Board of Directors. In his capacity as General Manager, he is responsible for managing tribal interests in the largest hydroelectric project in the region and responsible for managing the negotiations with Portland General Electric for joint ownership of the Pelton-Round Butte Hydroelectric Project, a 475-Megawatt Hydroelectric project.

He has also served the tribe on several business enterprises Board of Directors; Warm Springs Forest Products Enterprise, Warm Springs Credit Enterprise, currently Chair the Tribes Business Investment Fund. He also serves on the Deschutes River Conservancy, currently sits on the Warm Spring Museum Board of Directors, the local Food Bank Committee, and the local Hospital Foundation Board. He has also been appointed to the US Department of Energy's national Indian Country Energy & Infrastructure Working Group.

Mr. Manion has extensive experience managing resource-related projects for the Tribes. He is currently managing a USBR WaterSMART Water Marketing Strategy grant that was awarded to the Tribes in the Fall of 2017.

As further discussed in the Budget Proposal, all tasks will be performed by a competent water resources engineering firm. Please refer to Appendix A for qualifications.

Describe how the environmental compliance estimate was developed. Has the compliance cost been discussed with the local Reclamation office?

Environmental compliance and related costs have been discussed with Mr. Gregg Garnett from Reclamation's Bend, Oregon Field Office on December 20th and December 23rd, 2019. This project is primarily a desktop analysis, does not disturb the ground in any way, and only gathers data at established sampling locations.

Based on these initial discussions, it is assumed that there are no environmental compliance costs for this effort. If environmental compliance costs are found to be applicable, the budget proposal shall be adjusted accordingly while ensuring that the Total Project Cost remains constant.

Evaluation Criterion D — Alignment with Department of the Interior Priorities

The proposed project is in alignment with Department of Interior Priorities by 1) Restoring trust with local communities, 2) Striking a regulatory balance, and 3) Modernizing our infrastructure.

Restoring trust with local communities

The proposed project allows Reclamation to be a better neighbor with those closest to their resources by improving dialogue and relationships with persons and entities bordering their lands and expands the lines of communication with Governors, state natural resource offices, Fish and Wildlife offices, water authorities, county commissioners, Tribes, and local communities by building upon and maintaining a direct working relationship between Reclamation and the Tribes.

Striking a regulatory balance

The proposed project reduces the administrative and regulatory burden imposed on U.S. industry and the public. The Warm Springs Water Treatment Plant has faced ongoing administrative and regulatory difficulties imposed by the USEPA. Using groundwater as a cleaner source water, as opposed to Deschutes River surface water, will make it much easier to reliably treat water to meet the USEPA's SDWA regulatory requirements.

Modernizing our infrastructure

The proposed project supports the White House Public/Private Partnership Initiative to modernize U.S. infrastructure by working toward the installation of new and modern piping and source water delivery technology for the Warm Springs Public Works.

Project Budget

Budget Proposal

The following table provides the budget proposal, as well as the Total Project Cost, for the proposed study.

Table 2. Budget Proposal and Costs (REDACTED)

Budget Narrative

Salaries and Wages

There are no salary and wage costs for this project.

Fringe Benefits

There are no fringe benefit costs for this project.

Travel

There are no travel costs for this project.

Equipment

There are no equipment costs for this project.

Materials and Supplies

There are no material and supply costs for this project.

Contractual

The Tribes will use a qualifications-based procurement method to contract Momentum Civil and Environmental Engineering LLC (Momentum Engineering) to perform all engineering and design work as described under the Technical Project Description and Milestones section of the proposal.

Brent Cody, Ph.D., P.E. is the owner of Momentum Engineering and will perform all work described herein under the direct management of the project manager, Mr. Jim Manion. Dr. Cody has extensive performance history with federally recognized Tribes and has a large amount of experience in completing similar projects in size and scope. He has successfully managed, been an expert witness, completed technical work, or written proposals for over 50 technical consulting projects for over 12 Native American Tribes. The average budget for these projects ranged between $50,000 and $150,000. Dr. Cody has never been over-budget on a project under his management and has built a reputation for providing high-quality deliverables. Most importantly, Dr. Cody has an established relationship with the Tribes and has worked directly for the Warm Springs Power & Water Enterprises analyzing water resources in the Deschutes River Basin. Dr. Cody's resume and a copy of his professional engineering license are included under Appendix A of this proposal.

As shown in Table 3, Momentum Engineering has provided a labor and cost breakdown by task for this consulting work. Momentum Engineering's hourly billing rate is $160 per hour. All laboratory sampling costs are included in the Expenses line item.

Table 3. Labor hour and cost breakdown for consulting work by Momentum Engineering (REDACTED)

Third-Party In-Kind Contributions

There are no third-party in-kind contributions for this project.

Environmental and Regulatory Compliance Costs

Environmental compliance and related costs have been discussed with Mr. Gregg Garnett from Reclamation's Bend Field Office on December 20th and December 23rd, 2019. This project is primarily a desktop analysis, does not disturb the ground in any way, and only gathers data at established sampling locations.

Based on initial discussions with Reclamation staff, it is assumed that there are no environmental compliance costs for this effort. If environmental compliance costs are found to be applicable, the budget proposal shall be adjusted accordingly while ensuring that the Total Project Cost remains constant.

Other Expenses

There are no other expenses for this project.

Indirect Costs

There are no indirect costs for this project.

Total Costs

The total amount of project costs, including the Federal and non-Federal cost share amounts, is $99,960.

Funding Plan and Letters of Commitment

Voluntary contributions, including third-party contributions, are not included as part of this project. Accordingly, a description of obtaining the non-Federal share, as well as letters of commitment, are not applicable to this project.

There are no project costs that have been or may be incurred prior to award that the applicant shall request for consideration for approval as a pre-award project cost.

Table 4. Summary of Non-Federal and Federal Funding Sources

FUNDING SOURCES	AMOUNT
Non-Federal Entities	
Non-Federal Subtotal	$0
Other Federal Entities	
Other Federal Subtotal	$0
REQUESTED RECLAMATION FUNDING	$99,960

Environmental and Cultural Resources Compliance

Will the proposed project impact the surrounding environment (e.g., soil [dust], air, water [quality and quantity], animal habitat)? Please briefly describe all earth-disturbing work and any work that will affect the air, water, or animal habitat in the project area. Please also explain the impacts of such work on the surrounding environment and any steps that could be taken to minimize the impacts.

The proposed project will not impact the surrounding environment in any way. There will be no earth-disturbing work of any kind.

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?

This question is non-applicable to this project because this project will be a desktop analysis and will not affect Federally-threatened or endangered species, or designated critical habitat in the project area.

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, please describe and estimate any impacts the proposed project may have.

The proposed project is a comprehensive desktop modeling analysis to determine how best to use tribal groundwater resources for municipal water supply. Accordingly, this project will not impact any wetlands or other surface waters under CWA jurisdiction.

When was the water delivery system constructed?

This question is non-applicable to the proposed project because the proposed project is a comprehensive desktop modeling analysis to determine how best to use tribal groundwater resources for municipal water supply. This will not impact irrigation water delivery systems.

Will the proposed project result in any modification of or effects to, individual features of an irrigation system (e.g., headgates, canals, or flumes)? If so, state when those features were constructed and describe the nature and timing of any extensive alterations or modifications to those features completed previously.

This question is non-applicable to the proposed project because the proposed project is a comprehensive desktop modeling analysis to determine how best to use tribal groundwater resources for municipal water supply. This will not impact irrigation water delivery systems.

Are any buildings, structures, or features in the irrigation district listed or eligible for listing on the National Register of Historic Places?

This question is non-applicable to the proposed project because the proposed project is a comprehensive desktop modeling analysis to determine how best to use tribal groundwater

resources for municipal water supply. This effort will not impact any buildings, structures, or features in the irrigation district listed or eligible for listing on the National Register of Historic Places.

Are there any known archeological sites in the proposed project area?

This question is non-applicable to the proposed project because the proposed project is a comprehensive desktop modeling analysis to determine how best to use tribal groundwater resources for municipal water supply. This effort will not impact any archeological sites in the proposed project area.

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

The proposed project will not have a disproportionally high and adverse effect on low income or minority populations. Conversely, the project aims to provide cleaner drinking water to low income and minority population members of the Tribes though the development of our groundwater rights for the purpose of improving our water supply.

Will the proposed project limit access to and ceremonial use of Indian sacred sites or result in other impacts on tribal lands?

The project will not limit access to and ceremonial use of Indian sacred sites or result in other impacts on tribal lands in any way.

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?

The project will not contribute to the introduction, continued existence, or spread of noxious weeds or non-native invasive species known to occur in the area.

Required Permits or Approvals

No permits or approvals are required for this project.

Letters of Support

There are no Letters of Support for this effort.

Official Resolution

An official resolution meeting all the requirements set forth in the FOA is forthcoming and will be submitted within 30 days.