

Shoshone Bannock Tribes Water Supply Bank Enhancement Project



Application submitted to:
U.S. Bureau of Reclamation
WaterSMART Water Marketing Strategy Grants FY 2017
FOA No. BOR-DO-17-F014



Applicant:
Shoshone-Bannock Tribes



Acting through the:
Water Resources Department

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April 2017



SHOSHONE-BANNOCK TRIBES WATER BANK ENHANCEMENT PROJECT TECHNICAL PROPOSAL

Executive Summary

Date: April 19, 2017

Applicant: Shoshone-Bannock Tribes

Location: Fort Hall Reservation, Idaho. Bingham, Bannock, and Power counties.

Project Summary:

The proposed project will look to enhance the water supply available to the existing Tribal Water Bank by analyzing and pursuing voluntary, market-based water sharing and/or lease agreements between the Tribes and the irrigation water users in the Michaud Unit of the Fort Hall Irrigation Project. The Tribes have successfully operated the Tribal Water Bank since 1998 and have actively promoted water market solutions to address regional water issues. In most years, the Tribes will lease approximately 45,000 acre-feet from the Bank; however, due to variability in the water storage supply and a priority placed on meeting on-Reservation irrigation use, water supply available to the Tribal Water Bank is shorted in some years. This impacts the marketability and value of the Tribal Water Bank contracts. In 2013, the Tribes began to understand and evaluate the water supply limitations of the Tribal Water Bank and have been working since then to develop solutions that enhance the water supply reliability for the Bank.

The proposed project will look at non-structural means of enhancing the reliability of the Tribal Water Bank supply in drought years through innovative water sharing and market-based exchanges, such as rotational fallowing, dry-year fallowing, deficit irrigation, crop switching and potentially others. These frameworks will be fully vetted based on detailed economic analysis. Following the analytical component of the project, the project team will conduct outreach with Michaud Unit water users, the Fort Hall Business Council, and the Bureau of Indian Affairs as operators of the Project, to describe and discuss financially-viable options for addressing the Tribal Water Bank supply shortages. Project results will also be shared with the public through presentation at a conference or similar event. The project team will draft model contracts and agreements to carry out the proposed types of water firming agreements with the Michaud Unit water users and landowners.

The potential benefits of the proposed project are numerous. The project will: (1) enhance the Tribal Water Bank supply thereby directly increasing the volume of leased water in Eastern Idaho, particularly in drought years; (2) explore innovative market-based water sharing and/or transfer methods, with analytical results that will be communicated to the water community and will be transferrable to other irrigation projects in the region; (3) seek to leverage the high-value of the Tribal water marketing program to provide an alternative income stream for Michaud Unit farmers.

Proposal for Funding Group I

Project Timeline: 18 months

Estimated Completion Date: March 2019

Reclamation Projects Located in Project Area: Minidoka Project, Palisades Project, and Michaud Flats Project





Background Information

The objective of this proposal is to enhance the Shoshone-Bannock Tribal Water Bank. The Bank is at the heart of the Tribes' nearly 20-year effort to implement a water marketing strategy as part of the Tribal Water Resource Department's overall management plan. The Tribal Water Resources Department (TWRD) has become a leader in forward-thinking water management in Eastern Idaho, and this project seeks to continue in this role by looking at innovative water supply agreements to enhance the Tribes' existing Water Bank. This section includes background information on the Tribes' water rights and water marketing activities over the past 20 years, which provides context for the proposed project. The Tribal Water Bank has been an important management tool for the Tribes, providing a critical revenue stream for the TWRD and allowing the Tribes to realize the full benefit of their water rights settlement agreement.

Tribal Water Rights

The Tribes' leadership role in water management and water marketing issues is rooted in the 1990 Fort Hall Indian Water Rights Agreement, and has grown through the various activities and initiatives of the Tribes since the Agreement. The 1990 Agreement quantified and secured the various Federal reserved water rights of the Tribes. These water rights included direct flow rights to major surface water sources in the region, senior-priority groundwater rights, and contracts in USBR storage reservoirs. The Tribes' Federal contract storage rights date back to the 1957 Michaud Contract, which was a memorandum agreement between the USBR and the Bureau of Indian Affairs which reserved storage rights in American Falls and Palisades reservoirs for use on the Michaud Division of the Fort Hall Reservation. The specific Tribal contract rights in these two reservoirs are defined in the 1990 Agreement: (1) American Falls Reservoir: 2.8059% of storage space (46,931 acre-feet); and (2) Palisades Reservoir: 6.9917% of storage space (83,900 acre-feet).

As stated in the 1990 Agreement, the 1957 Michaud Contract also established a water rights exchange, in which the Michaud Division of the Fort Hall Irrigation Project diverts water from the Portneuf River but utilizes the Tribes' Federal contract storage rights to accomplish the diversion. The Federal contract storage rights can also be used to support diversions from the Snake River into the Fort Hall Irrigation Project, when the Tribes' direct flow water rights have reached the annual volumetric cap. As described in more detail below, the 1990 Agreement also established a Tribal Water Bank for use of the Federal contract storage rights off-Reservation.

Tribal Water Bank

The 1990 Agreement provided the Tribes with the right to create a Tribal Water Bank in order to conduct off-Reservation leases of the Federal contract storage rights. A copy of Section 7.3 of the 1990 Agreement establishing both the Tribal storage rights and the Tribal Water Bank is attached to this proposal. The 1990 Agreement also included language that separated the Tribal Water Bank from administrative policies such as refill penalties and mitigation obligations. The Tribal Water Bank is administered by a set of rules established by the Tribal Rental Pool Committee, which consists of Tribal, State, and Federal representatives. The Committee has rule-making and oversight authority, but the Tribes are and have been the sole operators the Water Bank.





Tribal Water Marketing Program

The Tribes completed their first water lease through the Water Bank in 1998. The lease was to assist USBR in meeting its instream flow targets under the Snake River flow augmentation program. The Tribes entered into a 5-year lease agreement to provide 38,000 acre-feet per year at a price of about \$9 per acre-foot. The drought in the early 2000s constrained the Tribes ability to meet its lease volume targets, and the USBR lease was modified in 2003 to extend through 2007. In 2007, the Tribes made a pro-active decision to better understand the potential market for water available through the Tribal Water Bank. The Tribes completed a Water Marketing Plan with the assistance of WestWater Research. The Tribes followed through on the Plan recommendations, and entered into a higher-value lease agreement with the Idaho Power Company (IPC) in 2008. After an initial 1-year lease, the Tribes signed a 5-year lease agreement with IPC in 2009, which was then followed by a 2-year extension through 2015. The IPC lease agreement provided 45,716 acre-feet per year (subject to water availability) for hydropower and flow augmentation supplies for use in the Lower Snake River in Idaho. The Tribes signed a new 5-year lease agreement in 2016 with the Idaho Ground Water Appropriators (IGWA), which represents 8 large groundwater districts in Eastern Idaho. The lease terms provide an annual rental volume of 45,000 acre-feet per year, along with flexibility for IGWA to rent additional volumes of water or carry-over unutilized leased water. The current 5-year lease agreement runs through the year 2020. Since 1998, the Tribal Water Bank has provided roughly \$15 million of income to the Tribes, which has provided critical support for the operation and expansion of the Tribal Water Resources Department.

Michaud Unit Irrigation

The Michaud Flats area of the Reservation was first considered for inclusion in the Fort Hall Irrigation Project in 1922. A lack of water supply suspended progress on the project until the USBR proposed the use of storage water from their Federal reservoirs in the Upper Snake River system. The Michaud Unit was re-authorized for construction in 1954 (P.L. 83-741). The 1954 Act provided for the construction, operation, and maintenance of the Michaud Unit in exchange for a waiver by the U.S. and Tribes to all water rights arising out of the Fort Hall Bottoms area. The project was limited to 21,000 acres under the Act. Construction of the project began in 1957 and was completed in 1977. A Memorandum of Agreement was signed between the USBR and the BIA in 1957 to provide certainty as to the water supply for the authorized Michaud Unit project. The Michaud Unit currently services 20,992 acres of land. This is divided by Interstate 86 into a northern portion served exclusively from groundwater wells and a southern portion served mostly from the Portneuf River, but also from nine supplemental groundwater wells. In the northern portion, approximately 7,107 acres are actively served, of which 7,005 acres are Tribal lands (either trust or allotments). In the southern portion, approximately 13,885 acres are actively served, of which 13,634 are Tribal lands. Figure 1 shows a map of the Michaud Unit.





Reservation Water Uses

As described previously, the Tribes' Federal contract storage rights can be used for three purposes:

- (1) to satisfy a water rights exchange on the Portneuf River for use in the on-Reservation Michaud Unit under the terms of the Michaud Contract,
- (2) to replace any Snake River diversions to the Fort Hall Unit that exceed the annual volumetric cap on the Tribal direct flow water rights, and
- (3) to rent water to off-Reservation uses through the Tribal Water Bank.

This third purpose is only available as an option to the Tribes to the extent that the first two purposes are not satisfied. In other words, the Tribes can market their Federal contract storage rights to off-Reservation uses only after satisfying on-Reservation irrigation demands. This priority for on-Reservation uses is at the heart of the proposed project to enhance the Tribal Water Bank.

The Tribes' Federal contract storage rights total 130,831 acre-feet of storage capacity. Since the 1990 Agreement, the Tribes have seen an average annual allocation of approximately 106,000 acre-feet. The Fort Hall Unit does not utilize significant storage volumes following specific water management policy changes requested by the Tribes around 2000. The Michaud Unit has diverted approximately 35,400 acre-feet on average, but these diversions have seen a recent increase, averaging about 43,000 acre-feet over the past 5 years. The increase in Michaud Unit diversions has made it more difficult to satisfy water leases in the Tribal Water Bank. Therefore, the Tribes are now looking for ways to firm the supply to the Bank by reducing demands within the Michaud Unit water, which will improve the reliability of the Tribal Water Bank.

Need for Project

This project is being proposed because the Tribes have experienced recent constraints on their water marketing activity, and the Tribes are looking to explore opportunities to alleviate or minimize such constraints in the future. The project will target a specific need to increase the water supply available for marketing. The increasing use of water in the Michaud Unit could threaten the activity of the Tribal Water Bank. The project will explore voluntary, market-based means of reducing Michaud Unit deliveries to provide more reliability and higher transaction volumes in the Tribal Water Bank.

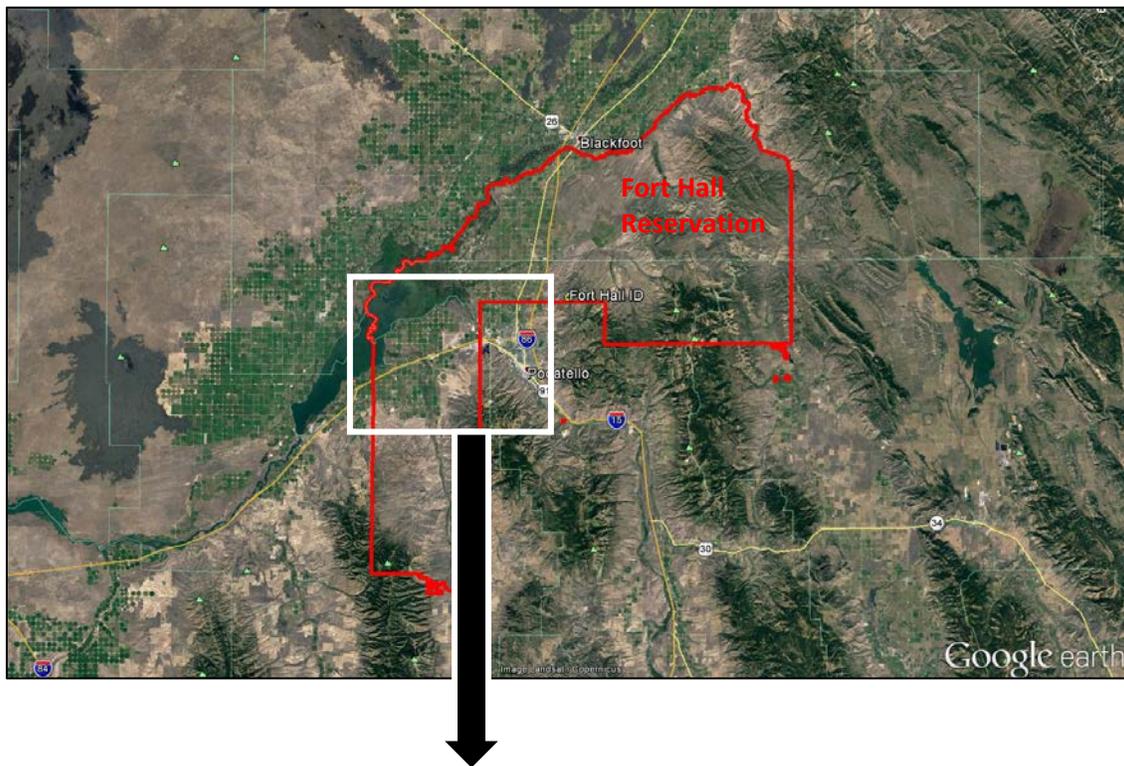
In addition, recent legal and regulatory changes that affect water management in Eastern Idaho region are expanding the potential use of water marketing to alleviate the water supply-demand imbalance and to help meet the needs of local water users in putting water to the highest economical use. The results of this study will be transferrable to other water right holders in the region, with the intent of providing concepts and frameworks for new water transactions outside of the Reservation. There is a need for the region to explore water transfer frameworks that have found success in other parts of the Western U.S.

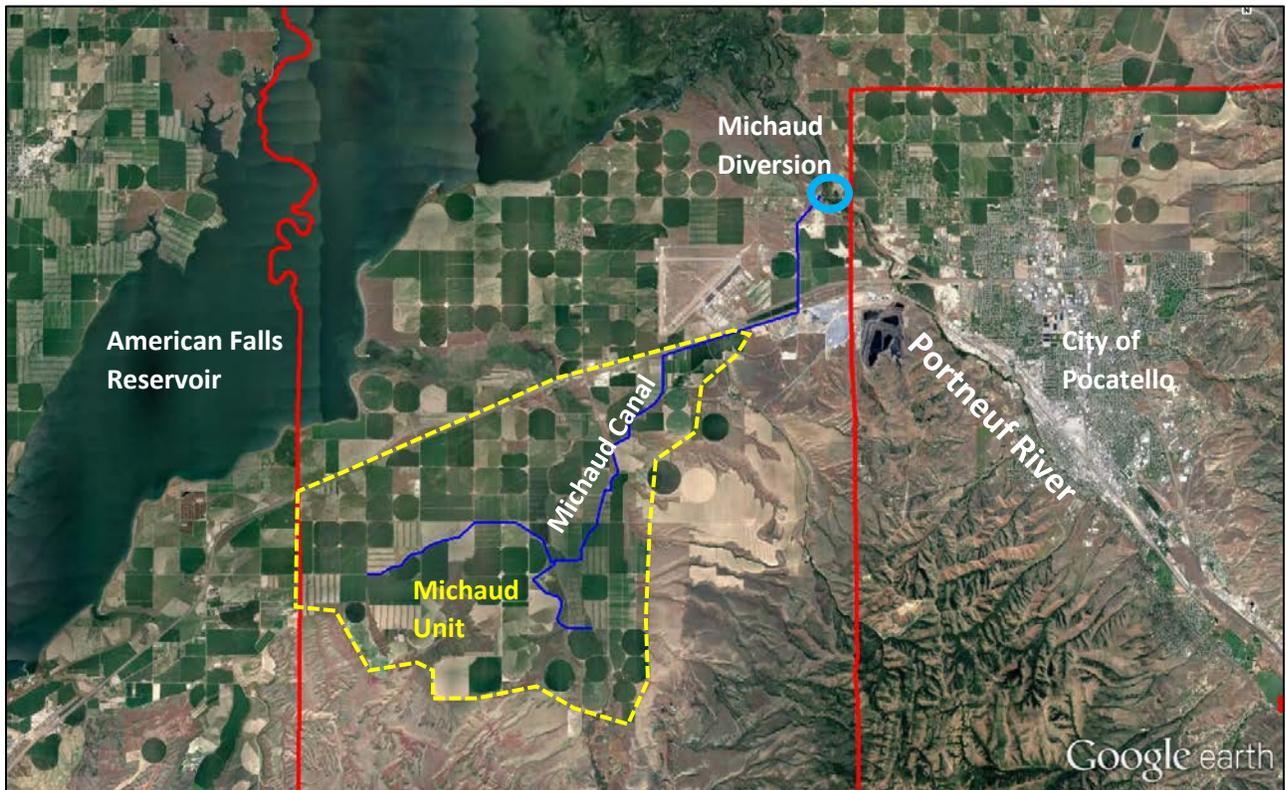


Past Work with Reclamation

The Tribes, and specifically the TWRD, have built a strong and mutually beneficial relationship with Reclamation over the past 20 years. This relationship has consisted of various activities. The Tribes leased water to Reclamation for flow augmentation from 1998 to 2006, and Reclamation provided cost-share funding to the TWRD from 2005 to 2014 through the Technical Assistance Program for the installation of flow meters on most large-capacity groundwater wells on the Reservation. In 2015, Reclamation provided funding to plan and design an improved check dam structure on the Portneuf River which serves the Michaud Unit and is directly related to the proposed project. Most recently, the TWRD and Reclamation have been closely aligned in an administrative issue to revise the water rights accounting policies related to Upper Snake storage.

Figure 1: Overview Map of the Michaud Unit on the Fort Hall Reservation







Project Description

The proposed project targets the required elements of the grant, as described in the following paragraphs. Project activities are described in more detail in the scope of work.

Element 1 – Outreach and Partnership Building

The project includes critical outreach to stakeholders. The primary outreach will be to Michaud Unit water users to educate them on changes in current on-Reservation water use and management. Additional outreach will engage and inform the Tribal leadership through the Fort Hall Business Council, and communicate the findings of this project to a broader public audience. This element of the project will consist of the following activities: (1) Host a workshop with the Michaud water users, (2) Present to the Fort Hall Business Council, (3) Present the technical findings at a water-focused conference in Idaho.

Element 2 – Scoping and Planning Activities

The project will involve a significant amount of water market and economic analysis to firm up the water supply available for marketing. The scoping effort will focus on evaluating the economic, cultural and management feasibility of reducing on-reservation demands through a variety of water transfer frameworks (fallowing, dry-year options, etc). This element of the project will consist of the following activities: (1) Quantification of agricultural water use in the Michaud Unit, (2) Analysis of historical water use in the Michaud Unit, (3) Economic analysis of agricultural returns, (4) Economic analysis of project water delivery costs, (5) Investigation of different water transaction frameworks.

Element 3 – Development of a Water Marketing Strategy

The Tribal Water Bank is a fully-implemented water market, and therefore strategic implementation activities, such as a description of administration and legal frameworks, are not required for this project. The strategy component of this project is targeted at the specific mechanisms to firm up the Tribal Water Bank water supply. This element of the project will consist of the following activities: (1) Identifying the best water transaction framework, (2) Drafting contracts and/or agreements, (3) Evaluating administrative and operating requirements and associated costs.

Scope of Work

This section provides a chronological summary of the project tasks. This includes the development of required project documents, including the work plan, communication plan, and technical report.

Task 1: Development of Project Work Plan

As stated in the FOA, the project will commence with the development of a project work plan. The work plan will provide a detailed work schedule of project tasks and activities, and will include regular progress reporting. The work plan will detail how the required elements of the grant will be met through the project. The work plan will be submitted for USBR review and comment.





Task 2: Scoping and Planning Activities

This task will include various activities aimed at analyzing framework options for a water supply firming program for the Tribal Water Bank. Research will be conducted to establish a framework for reducing irrigation deliveries in the Michaud Unit in times of water shortage, in order to maintain a reliable water supply for the Tribal Water Bank water marketing. Specific activities are focused on understanding the agricultural value and farm-level water use in the Michaud Unit, as a basis for crafting water transfer frameworks. The project proposes the following activities:

1. Quantification of per-acre diversion, consumptive use, and return flows for both the entire project and individual crop types in the Michaud Unit. This will provide a water budget for determining the farm-level water use.
2. Analysis of historical and future water diversions to the Michaud Unit compared to climate-based crop water demand estimates and Portneuf River supply flows. This will provide perspective on the overall water use efficiency and capacity to reduce irrigation use.
3. Economic analysis of agricultural returns for various crop types in the Michaud Unit, as a net return per unit of water applied and consumed. This will provide a baseline on establishing pricing under various water transfer frameworks.
4. Economic analysis of project water delivery costs based on pumping, maintenance, labor, and operations in the Michaud Unit.
5. Investigating different water transaction concepts to provide a flexible and/or intermittent water supply to the Tribal Water Bank through reduced irrigation deliveries in the Michaud Unit. Examples include: rotational fallowing, interruptible water supply agreements (dry year fallowing), crop switching, deficit irrigation, and other concepts. For each concept, a financial model will be developed that simulates program monitoring and reporting costs, payments to water users, and lost agricultural returns.

Task 3: Development of a Water Marketing Strategy

This task will build from the analysis completed in Task 2 by identifying and further developing a selected water supply firming framework. The objective will be to develop the concept in sufficient detail so that it is ready for immediate implementation. The program will be developed based on the analysis results from Element 2 activities, and will be a market-based (financially viable) and voluntary program. Implementation of the program will be at the discretion of the Fort Hall Business Council and individual land-holders in the Michaud Unit. The following activities are proposed:

1. Identifying the best transactional framework between the Tribes and Michaud Unit water users based on the economic analyses completed under Element 2. The best framework will be selected based on having the highest estimated financial returns to the water users and the lowest administrative complexity and implementation cost. A matrix table of framework options will be developed comparing returns, costs, and administration to support the selection process.
2. Drafting contracts and/or agreements that support the identified water supply firming program in the Michaud Unit. The type of contact or agreement will depend upon which framework is selected. The template contracts will be sufficient for the Tribes to utilize to implement the program.





3. Evaluating the program administrative and operating requirements and associated costs. Agricultural water use monitoring (for compliance) will be implemented through an existing water accounting program recently developed by NRCE for the Tribes. Administrative requirements such as payment processing and coordination with the BIA operators of the Michaud Unit will be identified and described.

Task 4: Development of a Communication and Outreach Plan

Upon selection of a framework for the water supply firming program, the project team will begin to develop a communications and outreach plan for describing the water marketing strategy and its anticipated benefits. The plan will outline how the Tribes will engage the Michaud water users, the BIA staff who operate the Michaud Unit, and the Fort Hall Business Council as Tribal leadership. Project analysis and technical results will be summarized and communicated through easy-to-understand diagrams and tables. The result of the plan will be a set of presentation materials and talking points about the water supply firming program to benefit the Tribal Water Bank. In addition, to leverage the important water marketing information that the project will generate, the findings of the technical analysis exploring different water transfer frameworks will be presented at a water-focused conference or workshop in Idaho. The intent will be to incentive other Idaho water users to explore voluntary, market-based solutions to water supply shortages.

Task 5: Outreach and Partnership Building

Following from the communication planning effort, the project team will implement the plan by meeting with various stakeholders. The project team will first make a presentation to the Tribes' governing body, the Fort Hall Business Council, to explain the motivation for a water supply firming program and the results of the analysis. The project team will then host a workshop for Michaud Unit water users to explain various voluntary, market-driven concepts for reducing deliveries. The workshop will both explain the need for water supply firming program to support the Tribal Water Bank, and clearly explain the financial motivation for farmer participation in the program. Finally, the project team will present the technical findings of the analysis at a water conference in Idaho, in order to broaden the audience for voluntary, market-based solutions to water supply shortages.

Task 6: Drafting Technical Report

The project team will draft a technical report that summarizes all work undertaken and important findings. The technical report will include data tables, graphs, and map figures to explain the motivating issue behind the project, as well as a full analysis of the potential frameworks evaluated. The technical report will also summarize the outreach activities conducted, including the response from the agricultural water users and Fort Hall Business Council. The presentation materials developed under the communications plan will be included in the technical report. The technical report will also include a stand-alone water marketing strategy for the development of a market-based water supply firming program for the Tribal Water Bank. The technical report will be provided for USBR review at least 60 days prior to the project end date.





Task 7: Project Management

The project will be managed by the Tribal Water Resources Department. Some of the individual tasks will be managed by WestWater Research, a long-time consultant to the Tribes on water marketing issues. This task is included to dedicate staff time to providing progress reports, reviewing budgets and project objectives, and conducting telephone and in-person meetings among the project team members.





Project Timeline

A project work plan will be developed as an initial task under the project. The work plan will describe project schedules and milestones in more detail. This proposal is seeking funding assistance under Funding Group I, and therefore all project tasks will be completed within two years from the date of award. Figure 2 provides an anticipated schedule for the project, which is expected to require 18 months to complete. The project timeline includes milestones (shown in red) which represent the completion of specific elements of the project. Project team meetings have been scheduled at or around these milestones. Semi-annual progress reports will be provided to the USBR grant officer to help ensure that the project stays on track and within budget.

Figure 2: Anticipated Project Completion Schedule

Task	Sub-Task	Month																	
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
1 Work Plan		█	█																
2. Scoping Activities	Agriculture water use			█	█	█													
	Michaud diversions			█	█	█													
	Agricultural returns			█	█	█													
	Project water costs			█	█	█													
	Transaction concepts					█	█	█											
3. Water Marketing Strategy	Best frameworks								█	█	█								
	Draft agreements									█	█								
	Evaluate program costs									█	█								
4. Outreach Plan												█							
5. Outreach													█	█	█				
6. Report																█	█		
7. Project Management	Project team meetings		█					█					█			█			█
	Progress reports						█						█						█



Evaluation Criteria

This section provides a detailed description of how and why the proposed project aligns with the goals, objectives, and criteria for the Water Marketing Strategy grant program.

Criterion A – Water Marketing Benefits

- *Explain whether the water market/activity will address a specific water supply shortfall and describe the extent of benefits to different sectors, including agricultural, municipal/industrial, tribal and environmental sectors, including:*

- *Will the water marketing strategy address a specific water supply shortfall?*

Yes, the proposed project addresses a specific water supply shortfall, which can be defined as the shortage in water supply available to the Tribal Water Bank.

- *What is the nature and severity of the shortfall and which sectors are affected? Please describe the shortfall (e.g., nature and extent of impacts) and provide support for your response.*

The nature of the water supply shortfall is defined as the shortage in water supply available to the Tribal Water Bank. Unique to this project, the water supply shortfall is not based on a typical water demand sector, but rather a demand for sufficient water supplies to conduct water marketing through the Tribal Water Bank. In this way, addressing the water supply shortfall of the Tribal Water Bank directly improves and increases the volume of water marketing achieved by the Tribal Water Bank. The Tribal Water Bank has a current water lease contract to the year 2020 for at least 45,000 acre-feet per year. Past water marketing activities have shown that this volume of leasing activity may be constrained in dry years due to other on-Reservation demands for the Tribal reservoir storage supplies. Thus, the Tribal Water Bank is currently supply-limited more than demand-limited. Figure 3 illustrates the water supply shortages that have occurred in the past. In the years 2002-2005, the Tribes had an active water lease agreement with USBR to provide 38,000 acre-feet per year for instream flow purposes. In the years 2013-2014, the Tribes had an active water lease agreement with Idaho Power Company to provide up to 45,716 acre-feet for hydropower generation uses. In both cases, the Tribes could not fulfill the demands of the lease agreement due to a shortfall in water supply available to the Tribal Water Bank. The extent of the shortfall, calculated as the difference between leasing demands and available supply, was approximately 76,000 acre-feet during 2002-2004 and 53,000 acre-feet during 2013-2014.

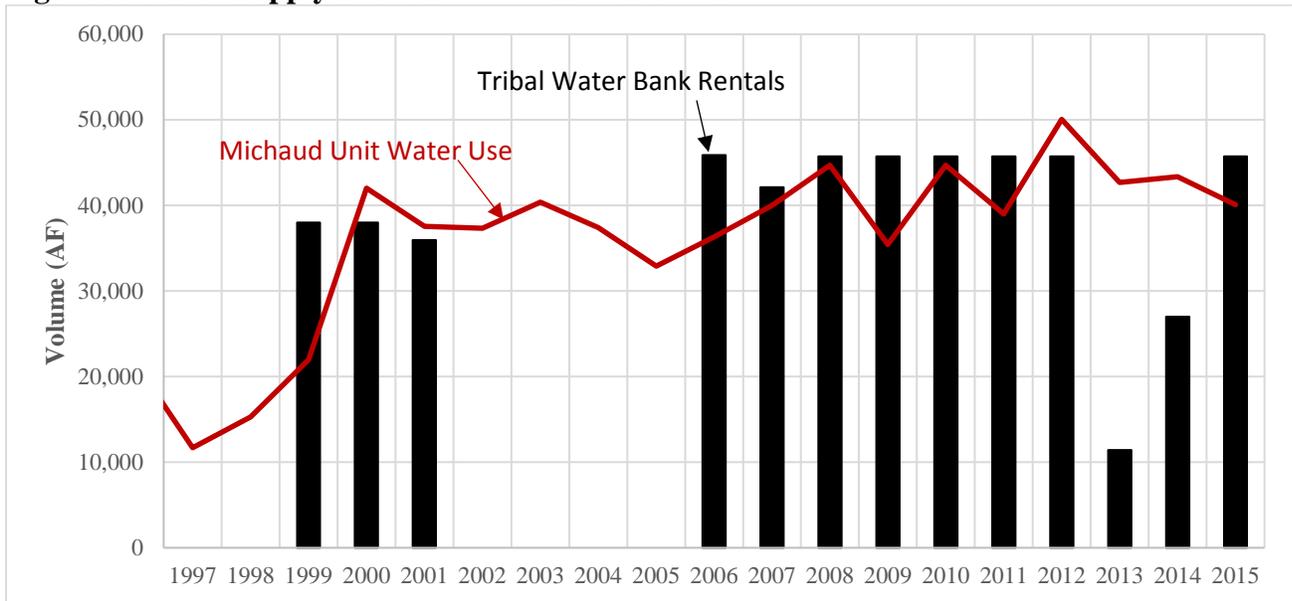
- *How and to what extent will the water market/water marketing activities, once implemented, address the shortfall? Please describe the expected benefits (e.g., how water users will benefit) and provide support for your response.*

The intent of the project is to identify and develop market based strategies opportunities to reduce on-reservation water demand during drought to enhance the reliability for the benefit of the Tribal Water Bank. In addition, the project will seek to develop demand reduction strategies that meet with current on-reservation and cultural objectives. The shortfall exists because the Tribes must first satisfy water demands for irrigated agriculture on the Reservation, specifically in the Michaud Unit. The proposed project will investigate and develop frameworks to reduce



irrigation deliveries to the Michaud Unit, thereby increasing the water supply available to the Tribal Water Bank and reducing the shortfall. Expected benefits include increased water marketing through the Tribal Water Bank without jeopardizing continued agricultural operations and long-term viability in the Michaud Unit.

Figure 3: Water Supply Shortfall in Tribal Water Bank



- *Will the water market/water marketing activities benefit multiple sectors (e.g., agricultural, municipal, tribal and environmental) and/or types of water uses (e.g., hydropower generation, recreation, irrigation)? If so, to what extent and which sectors and water uses will benefit? Provide support for your response.*

The proposed project, and marketing activity, will benefit multiple sectors. The framework to be developed in the project will increase the water supply available to the Tribal Water Bank as a benefit to the Tribes, and will provide an alternative source of revenue as a benefit to farmers in the Michaud Unit. Beyond these direct beneficiaries, increased marketing activity in the Tribal Water Bank has the potential to positively impact multiple water use sectors. In the past, the Tribes have leased water to environmental instream flow and hydropower uses, and is currently leasing water to benefit groundwater irrigation throughout the Eastern Idaho region.

- *Explain how and to what extent the proposed water market or water marketing activities will improve water supply sustainability in general in the area upon implementation of the strategy (address all that apply):*
 - *Increasing resiliency to drought*

The proposed water supply framework will improve resiliency to drought through several avenues: (1) the framework would pay Michaud Unit farmers to fallow ground in drought years in order to improve the water supply available to the Tribal Water Bank, thus providing an alternative revenue stream to the Michaud Unit farmers in years when their cropping returns may have suffered by leveraging the higher value of water in alternate uses; (2) the framework seeks



to make more water available for leasing through the Tribal Water Bank, particularly in drought years, which would increase the availability of leased water supplies in drought years to any number of Eastern Idaho water demand sectors.

- *Providing instream flows for ecological purposes, species, recreation or water quality objectives*

The proposed project provides instream flow benefits in the Portneuf and Snake river systems. In the past, the Tribal Water Bank has been utilized by the USBR to provide instream flows for the Snake River flow augmentation program. Currently, the IGWA lease from the Tribal Water Bank provides instream flows in the Snake River for mitigation purposes. In the future, it is possible that an enhanced Tribal Water Bank will once again be utilized to provide instream flows for environmental purposes. The project will also have important instream flow benefits in the Portneuf River from the diversion point of the Michaud Unit down to American Falls Reservoir. This Portneuf River reach is considered critical habitat for native fish species and has been identified by the Tribal Fisheries Department as a high-priority target for improved instream flows. In 2013, Tribal Fisheries and the Tribal Water Resources Department convened a meeting with the BIA to explore options for improving fish passage on the Portneuf River at the Michaud Unit diversion. Since that time, the Water Resource Department has received USBR and NRCS grants to study and construct a new diversion check structure and fish bypass for the Michaud Unit diversion. The proposed project seeks to reduce Michaud Unit diversions, particularly in drought years when flows in the Portneuf River would be diminished. The primary benefit is to improve the water supply available to the Tribal Water Bank, but an equally important benefit is that reduced diversions into the Michaud Unit will benefit the Portneuf River fishery.

- *Sustaining agricultural communities while still reducing diversions*

At the heart of the proposed project is the goal of constructing a water transfer framework that benefits the Michaud Unit farmers by providing an alternative source of income. The idea is to make the Michaud Unit operations more sustainable by providing an additional revenue source. The reduction in water diversions to the Michaud Unit would be a fundamental piece of the framework to be developed under the proposed project. Understanding that there are storage carryover uncertainties and risk adjustments, each acre-foot of water not diverted by the Michaud Unit would become an additional acre-foot available to the Tribal Water Bank.

- *Reducing the likelihood of conflicts over water*

The proposed project seeks to avoid a water conflict by identifying water transfer mechanisms that are consistent with Tribal management and cultural objectives for on-reservation water use. The Tribes have been successful in establishing a Tribal Water Bank that markets water to regional water users at a relatively high value. The Tribal Water Bank can only operate, and realize these values as income to the Tribes, to the extent that on-Reservation irrigation water users do not utilize the Tribal storage supplies in American Falls and Palisades reservoirs. This inherent conflict arose in 2013 when the Tribes could not satisfy their lease agreement with the Idaho Power Company. At that time, the Tribal Water Resources Department explored several options for improving the supply available to the Tribal Water Bank, but ultimately none of the options could be implemented. This project seeks to find a more permanent solution to this





water conflict, by developing a water transaction framework that is voluntary and financially-viable for both the Tribes and the Michaud Unit water users, such that the type of conflict that arose in 2013 and 2014 is minimized in the future.

- *Demonstrating a water marketing approach that is innovative and which may be applied by others*

Water transfer frameworks that reduce irrigation deliveries to provide a more robust water supply to another entity are relatively new, with a few examples in other locations in the Western U.S. Some examples include: (1) the rotational fallowing agreements in Palo Verde Irrigation District and Imperial Irrigation District, (2) the fallowing agreements on the Catlin Canal in Colorado, (3) the rotational fallowing program in the Yuma Mesa Irrigation and Drainage District in Arizona, and (4) the System Conservation Pilot Program implemented throughout the Colorado River Basin. The proposed project provides an opportunity to introduce such innovative fallowing agreements and other water transfer frameworks into a new region in Idaho. The project will be focused on the Michaud Unit on the Fort Hall Reservation, and data will be compiled and analyzed specific to this case study. However, the results of the analysis and project findings are anticipated to be readily transferrable to other project locations in Eastern Idaho, particularly by groundwater users who face increased obligations to mitigate pumping and reduce use. The project will specifically demonstrate that a market-based approach and/or framework can be developed, and the results are planned to be shared with the Idaho water community as part of the project.

- *Explain the extent to which the water market/activity will be ready to proceed upon completion of the strategy, addressing each of the following (note: Funding Group I proposals will be evaluated separately from Funding Group II proposals, to ensure fairness):*
 - *Describe your plans and timeline for implementing the strategy upon its completion.*

The success and implementation of a water sharing agreement will be dictated by the willingness of parties to engage, which will need to come from the Tribal leadership, Bureau of Indian Affairs, and Michaud Unit water users. The Tribal Council is the main stakeholder. The project team will develop an implementation plan for the Tribal Council that will outline a recommended process for implementation of the water marketing strategy. The plan will include research and analysis to allow the Tribal Council to evaluate changes to current water management policy, and will include policy guidelines. After approval from the Tribal Council, the project team will engage with Michaud Unit water users and work with the parties to sign the necessary agreements to implement the project. Draft agreement documents will be developed as part of the project. The timeline for implementing the strategy could be fairly quick (within 6 months) if both the Fort Hall Business Council and the Michaud Unit water users are agreeable to the proposed framework. If there are concerns or a lack of willingness to engage, then the timeline for implementation is uncertain and would be significantly longer. However, even if not implemented immediately following this project, the information developed from this project will have long-term benefit by laying the groundwork for any future water sharing agreement.





- *Are there complex issues, including issues of law or policy, that would need to be resolved before the strategy could be implemented?*

No, the proposed water sharing agreement is not expected to have complex legal or policy issues associated with it. In part, this results from the fact that the Tribes are transferring water use between two of its existing rights under the 1990 Fort Hall Indian Water Rights Agreement. The most complex aspect of this strategy is to make sure that any agreement does not violate policies and requirements of the Bureau of Indian Affairs. Since the strategy is based on voluntary participation, it is not expected to trigger any legal issues.

- *Explain whether previous planning, outreach and/or water marketing activities have been completed, including work on any of the required Project elements (1), (2), and (3), described above.*

A significant amount of work has been completed by the Tribal Water Resources Department in leading up to this project proposal. The issue of water supply availability constraints for the Tribal Water Bank has been at the forefront of the Department's concerns since 2013, when the lease agreement to Idaho Power Company could not be fulfilled. Since that time, the Department has completed a number of technical investigations into the issue. In addition, the Department has written a number of articles describing the Tribal Water Bank and its importance to the Tribes, which provides helpful context for this project proposal. Past studies and reports have included:

- 2007 Water Marketing Plan by WestWater Research
 - Technical memorandums (2013-2016) by Natural Resources Consulting Engineers regarding Michaud Unit water use and infrastructure concepts to reduce diversion volumes
 - 2016 article titled Tribal Water Marketing in The Water Report *
 - 2016 report titled Water Resource Fee Assessment by WestWater Research
 - 2016 presentation (and associated data) at a 2016 Tribal Water Summit organized by the Shoshone-Bannock Tribes and focused on water marketing *
 - 2016 internship work at WestWater Research on the potential for IGWA to adopt market-based solutions to meet its reduced groundwater pumping obligations *
 - Ongoing water market research in the Eastern Idaho region
- (* indicates that the report is provided in an appendix)

Criterion B—Level of Stakeholder Support and Involvement

- *Identify stakeholders in the planning area who have committed to be involved in the planning process.*
 - *Describe their commitment, e.g., will they contribute funding or in-kind services or otherwise engage in the planning process?*
 - *Please explain whether the project is supported by a diverse set of stakeholders (appropriate given the types of interested stakeholders within the watershed and the scale, type and complexity of the proposed strategy). For example, is the project supported by entities representing environmental, agricultural, municipal, tribal, or recreation uses?*





The proposed project is focused on Tribal water rights and uses, and therefore the primary stakeholder is the Tribes. Other stakeholders include the Bureau of Indian Affairs as operator of the Michaud Unit and individual farmers in the Michaud Unit. The project does not ask that these other stakeholders commit to any specific agreement or contract. The proposed project will aim to provide sufficient information to develop a set of contracts and agreements for consideration by these other stakeholders.

- *Describe stakeholders in the planning area who have expressed their support for the planning process, whether or not they have committed to participate. Support can include letters of support from stakeholders or a description of feedback from interested stakeholders; such letters should identify the stakeholder's specific interest.*

The Tribes currently have a 5-year lease agreement with the Idaho Ground Water Appropriators (IGWA) for 45,000 acre-feet per year, which is used for mitigation purposes. IGWA represents 10 groundwater management and irrigation districts that collectively irrigate nearly 1 million acres. IGWA is supportive of the proposed project (see attached letter) because they are a direct beneficiary of improving the water supply reliability of the Tribal Water Bank, and will indirectly benefit from the economic information on innovative water transfer frameworks which will be developed and communicated as part of the project.

- *Is there opposition to the proposed strategy? If so, describe the opposition and explain how it will be addressed. Opposition will not necessarily result in fewer points.*

The proposed strategy has not been developed or advertised at a level that would generate opposition. Therefore, opposition to the strategy is not known at this time. By submitting this application, the Tribes are expressing an interest in further evaluating the project concepts and developing the strategy. Opposition may come from the BIA as operator of the Michaud Unit and from individual farmers in the Michaud Unit. There are several ways to mitigate this opposition: (1) the strategy will be voluntary, and therefore opposing parties may elect to not participate, (2) the Tribes are significant landowners in the Michaud Unit and could elect to only enroll their own land holdings in the program, and (3) the Tribes could articulate to the BIA why this program is needed and why opposition to it is not aligned with BIA fiduciary responsibilities.

- *Do any separate planning efforts express support for the proposed water market/transaction? Or, will the proposed water marketing strategy complement other ongoing or recent planning efforts within the area? Other relevant planning efforts could include:*

- *WaterSMART Basin Study*

The Henry's Fork Basin Study report was completed in 2015, and included an evaluation of water market approaches to addressing water supply-demand imbalances. No specific market solutions were identified in the Basin Study. The proposed project does not directly benefit the Henry's Fork Basin but does positively impact the broader Eastern Idaho water system through increased Tribal Water Bank water supplies.

- *Water management plan*





The Tribes completed a Comprehensive Water Master Plan in 2006 which consisted of a water conservation plan, drought contingency plan, groundwater monitoring and management plan, and water development plan (focused on municipal water uses). The conservation and drought planning documents are discussed below. The other elements of the Water Master Plan do not address the water marketing issues of the proposed project. As a follow up piece of the Water Master Plan, the Tribes developed a Water Marketing Plan in 2007, which stated that “*The Tribes should consider maximizing the amount of water available for marketing. More water could be available to market if less of the marketable water is used on Fort Hall.*” Various options were identified, including the reduction of water use in the Michaud Unit as is targeted in the proposed project. The proposed project is also consistent with Tribal water management planning efforts over the past 10 years, including efforts since 2013 that have directly focused on the Tribal Water Bank supply issue being addressed in this project.

- *Water conservation plan*

As part of the Master Plan, a Water Conservation Plan was developed in 2006 focused on the Fort Hall Irrigation Project on the Reservation. The Plan identified a number of water conservation project and actions that could be undertaken to reduce water diversions per unit irrigated acre. Potential ideas included changing billing structures, redeveloping the irrigation delivery schedules, improving water measurement, and infrastructure projects. The proposed project could utilize these water conservation recommendations to help reduce irrigation deliveries to the Michaud Unit. Infrastructure projects are not a focal point of the proposed project, but have been and will continue to be evaluated along-side market-based water sharing frameworks such as those that will be developed under this project.

- *Drought contingency plan*

The Tribal Water Resources Department was awarded a Drought Resiliency Program grant in FY2016 under the USBR WaterSMART program. The project is currently underway with an expected completion date in the fall of 2017. The project has two primary objectives: (1) to establish an in-depth knowledge base of the problem of drought, and (2) to perform predictive modeling of potential drought scenarios and mitigation techniques. The proposed project will leverage the detailed hydrologic analyses of the Drought Resiliency Program project report to better understand the future risks to the Tribal Water Supply Bank, and to better understand future agricultural water demands under climate change (see Task 2 activities). The Tribes have also adopted a Drought Contingency Plan in 2006 which includes irrigation demand management as an important mitigation action for the Tribes. The proposed project is a prominent example of a large-volume demand management project that could have significant benefits for mitigation drought.

- *State water plans*

The Idaho State Water Plan was most recently amended in 2012 and focuses on managing water resources for optimum use in Idaho, with a “*main goal...to help water managers, planners, and users formulate management strategies and policies needed to meet growing and changing water use needs*” The proposed project is a direct response to this focus and goal, by investigating a water management strategy to provide a better and more reliable water supply to the Tribal Water Bank which markets water to optimum uses and changing needs. More specifically, the





proposed project responds to the Plan implementation goal to “*Develop flexible water marketing tools to facilitate rental and/or acquisition of water rights for new uses on a willing buyer/willing seller basis.*” (Snake River DCMCI section). A Sustainability section of the State Water Plan was recently adopted in 2016 which includes an implementation strategy to “*Enhance water transfer mechanisms in Idaho law, policy, and regulations to allow future economic opportunities to utilize existing water supplies, while protecting existing uses*”. The proposed project targets this strategy directly, by looking to enhance the Tribal Water Bank through methods that protect the long-term viability of existing agricultural uses in the Michaud Unit.

- *Other planning efforts*

There are many other water resource planning efforts that are going on in the Eastern Idaho region that relate to the proposed project. These efforts can be divided into Tribal, State, and Federal categories. Tribal water planning studies currently include the USBR Drought Resiliency Program grant and a water quality protection study funded by a grant from the Administration for Native Americans. Both grants are being managed by the Tribal Water Resources Department. The Tribes are also conducting independent planning studies for marketing a unique block of storage water that was acquired through a 2015 settlement agreement with Water District 01. At the State level, the Idaho Department of Water Resources finalized a Comprehensive Aquifer Management Planning (CAMP) project for the Eastern Snake Plain Aquifer in 2009. An important mechanism for improved groundwater management includes “*rotating fallowing, dry-year lease agreements, and CREP enhancements*” as a demand reduction mechanism. Federal planning efforts are broad, and include the Columbia River Basin System Operations EIS process which was initiated with scoping meetings in 2016, and the related Biological Opinions for salmon recovery. The Department of Interior has also indicated strong support for market-based solutions to water issues in the Western U.S. through the development of the Natural Resources Investment Center and various grant programs. The proposed project is considered complementary to all of these planning and water resource management activities, at the Tribal, State, and Federal levels.

- *Describe what efforts that you will undertake to ensure participation by a diverse array of stakeholders in developing the water marketing strategy. If specific stakeholders have not yet been identified, or if some sectors are not yet represented, explain how you will accomplish this in the first few months after an award. Support could include a description of key stakeholder interests in the planning area and what efforts that you will undertake to engage them in the planning process, including outreach to stakeholders or collaborating with other groups or partners.*

The key stakeholders in the proposed water marketing strategy are the Tribes, the Bureau of Indian Affairs (BIA), and farmers in the Michaud Unit. The project does not involve a diverse set of stakeholders because the core objective is to enhance the water supply available to the existing Tribal Water Bank. Although a diverse set of lessees and partners have utilized and may continue to utilize water from the Tribal Water Bank, these off-takers are not considered stakeholders in the proposed project. The Tribes want to maintain flexibility in the use of the Tribal Water Bank as a true water marketing program that can respond to changing water supply and demand factors. The project will engage the other stakeholders (BIA and Michaud Unit water users) after





analyses have been completed and more information is available to support a water marketing strategy.

Criterion C—Ability to Meet Program Requirements

- *Describe how the three elements of a water marketing strategy will be addressed within the required timeframe. Please include an estimated project schedule that shows the stages and duration of the proposed work including major tasks, milestones, and dates.*

The project is anticipated to require 18 months to complete, which is within the two year time frame for projects under Funding Group I. A project timeline was provided in a previous section of this proposal, detailing the duration of proposed tasks and dates of milestones in the project. The three required elements of the water marketing strategy are tied to the project tasks as described previously, and therefore completion of the scope of work will ensure that the three elements have been fulfilled as described in this proposal.

If prior planning work will be relied on to meet any of the required elements of a water marketing strategy, please explain this and briefly describe that work that will be relied on.

A significant amount of prior planning work has both motivated this project proposal and will be relied upon to provide a knowledge base for the proposed project. The previous studies that will be utilized are listed under Criterion A above. While the project will rely upon previous work, the proposed project will address all three required elements.

- *Describe the availability and quality of existing data and models applicable to the proposed water marketing strategy.*

The project will benefit substantially from prior efforts of the Tribal Water Resources Department to both study the issue of a water supply shortage to the Tribal Water Bank and to investigate potential infrastructure solutions. In addition, the Department has undertaken other water-related studies which will be utilized as data sources. These studies include the following: (1) Water Use Fee Assessment completed in 2016 which provides fairly detailed crop enterprise budget data for Reservation areas, (2) Drought Resiliency Program report which is currently underway which will provide detailed information on future water supply availability to the Tribal storage accounts and future demands of the Michaud Unit, and (3) technical memorandums completed by NRCE which describe Michaud Unit water demands, track water usage by field on the Michaud Unit, and explore various infrastructure ideas for reducing water deliveries. In addition, the project will benefit from transactional and water transfer models developed by WestWater Research for various following projects in the Western U.S.

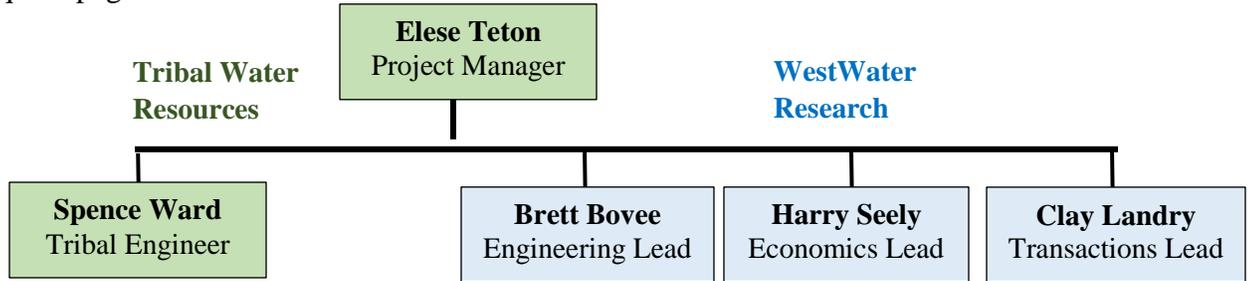
- *Identify staff with appropriate technical expertise and describe their qualifications. Describe any plans to request additional technical assistance from Reclamation, or by contract.*

The project will involve staff of the Tribal Water Resources Department, as well as staff of WestWater Research, a long-time contractor to the Department focused on assisting the Tribes with water marketing and economic research and Tribal Water Bank transactions. The following





chart describes staff roles in the proposed project. Qualifications for these staff are provided on the subsequent page.





Else Teton, Project Manager. Ms. Teton has served as the Tribal Water Engineer since joining the Tribal Water Resources Department in 1998. In this role, Ms. Teton provides management oversight of staff, directs Department initiatives and projects, and communicates with a variety of stakeholders on and off the Reservation. Ms. Teton graduated from Utah State University with B.S. and M.S. degrees in environmental engineering (water quality emphasis). In addition, Ms. Teton is a registered P.E. in the State of Idaho. Ms. Teton has successfully administered, managed, and grown the Department for more than 15 years, working on a variety of projects and programs. For the proposed project, Ms. Teton will be responsible for managing project tasks and ensuring that deliverables and outcomes are aligned with this proposal and the project work plan.

Spence Ward, Tribal Engineer. Mr. Ward has served as the Deputy Tribal Water Engineer since joining the Tribal Water Resources Department in 2006, and provides supervision to the water resource technicians and conducts various monitoring, investigation, and analytical duties. Mr. Ward graduated from Idaho State University with a B.S. in civil engineering, and is a registered P.E. in the State of Idaho. For this project, Mr. Ward will provide local knowledge of Michaud Unit operations and monitoring datasets on Michaud Unit water diversions and deliveries.

Brett Bovee, Engineering Lead. Mr. Bovee is a Regional Director at WestWater Research, and brings over 12 years of experience conducting a variety of engineering and water rights studies for the Shoshone-Bannock Tribes, along with more recent analyses of water market opportunities specific to the Eastern Idaho region. Mr. Bovee has specialized knowledge of both the water resources and uses of the Shoshone-Bannock Tribes, as well as Eastern Idaho regional water market information. Mr. Bovee holds B.S. and M.Eng. degrees in biological and environmental engineering from Cornell University, with a focus in water resources. He is a licensed P.E. in five western states. For this project, Mr. Bovee will manage the scoping and strategy development elements of the project.

Harry Seely, Economics Lead. Mr. Seely is a Principal at WestWater Research, and has over 15 years of experience in agricultural and water resource economic analysis. Over the last decade, Mr. Seely has applied mathematical programming and econometric analysis techniques to estimate the value of water. In addition, he has developed a variety of economic models as part of interdisciplinary teams to assess the regional economic costs and benefits of water quality, development and reallocation projects throughout the West. Mr. Seely holds a M.S. in natural resource and agricultural economics from Oregon State University and a B.S. in economics from Pacific Lutheran University. For this project, Mr. Seely will provide oversight on the completion of economic analyses looking at agricultural water use and strategy (framework) costs.



Clay Landry, Transactions Lead. Mr. Landry is the Managing Director at WestWater. Under Mr. Landry's management, WestWater has advised on more than \$700 million in water transactions. This includes the development of unique and innovative water sharing agreements such as the pilot rotational fallowing program on the Yuma Mesa Irrigation and Drainage District in Arizona. Mr. Landry holds an M.S. in agriculture and resource economics from Oregon State University and a B.S. in economics from the University of Wyoming. For this project, Mr. Landry will provide oversight and advice in formulating and analyzing various water transfer frameworks.





Criterion D—Nexus to Reclamation

- *Is there a Reclamation project, facility, or activity within the planning area?*

Yes, there are several Reclamation projects and activities in the planning area and surrounding vicinity. The Michaud Unit on the Fort Hall Reservation was originally planned and developed as part of the USBR Michaud Flats Project, but was later segregated to be a separate unit of the BIA Fort Hall Irrigation Project. As defined under a 1957 Memorandum of Agreement known locally as the Michaud Contract, the Michaud Unit utilizes reservoir storage water supplies in American Falls Reservoir (USBR Minidoka Project) and Palisades Reservoir (USBR Palisades Project). The Michaud Unit is located directly south of and abutting American Falls Reservoir. Reclamation activities in the area are numerous, but recently the Tribes have been in regular communication with USBR staff regarding storage operations in the Upper Snake River Basin and the instream flow augmentation program.

- *Is the planning area in the same basin as a Reclamation project, facility, or activity?*

Yes, the planning area is the Michaud Unit which is located in the Upper Snake River Basin. This Basin includes the USBR Minidoka Project, Palisades Project, and Michaud Flats Project, among others.

- *In what way will the proposed Project benefit a basin where a Reclamation project, facility, or activity is located?*

The proposed project will provide benefits to the Upper Snake River Basin where several Reclamation projects are located, as described above. The benefits of the proposed project are focused on increasing the water supply available for marketing through the Tribal Water Bank, which has the potential to benefit multiple water use sectors.

- *Will the Project help Reclamation meet trust responsibilities to any tribe(s)?*

Yes, the project applicant is the Shoshone-Bannock Tribes and the project seeks to enhance the operations of the Tribal Water Bank which was provided as an important benefit of the 1990 Fort Hall Indian Water Rights Agreement and related Congressional legislation.

- *Does the proposed Project support implementation of an Interior initiative (e.g., the National Drought Resiliency Partnership or the Colorado River System Conservation Program, for example)? Or, does the Project support a complementary initiative of another Interior agency (e.g., a U.S. Fish and Wildlife Service wildlife refuge)?*

Yes, the proposed project will support several Federal initiatives, including: (1) USBR Upper Snake River Basin flow augmentation program, (2) NOAA Columbia Basin salmon recovery program and related Columbia Basin Water Transactions Program, and (3) U.S. Department of Agriculture and Interior programs focused on water conservation, water use efficiency, and electric power reduction (from reducing Michaud Unit pumping demands).





SHOSHONE-BANNOCK TRIBES WATER BANK ENHANCEMENT PROJECT PROJECT BUDGET

Funding Plan

The project is proposed to be funded by both a Water Marketing Strategy Grant award and monetary contributions from the Tribal Water Resources Department. The Tribes are proposing to cost-share on the project by funding 50% of the project budget. A letter of commitment from the Tribes is attached to this proposal. Table 1 summarizes the proposed budget and funding sources.

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

Funding Sources	Amount
Non-Federal Entities	
1. Shoshone-Bannock Tribes, Water Resources Department	\$42,888
Non-Federal Sub-Total	\$42,888
Other Federal Entities	
None	\$0
Other Federal Sub-Total	\$0
Requested Reclamation Funding	\$42,887

The following paragraphs respond to the Funding Plan questions outlined in the FOA.

- *How you will make your contribution to the cost share requirement, such as monetary and/or in-kind contributions and source funds contributed by the applicant (e.g., reserve account, tax revenue, and/or assessments).*

The cost share requirement will be provided as monetary contributions by the Tribal Water Resources Department. The Department maintains several reserve accounts which it will utilize as a source of funds to support the contribution.

- *Describe any in-kind costs incurred before the anticipated Project start date that you seek to include as costs.*

The project does not propose to include and account for any in-kind costs as part of the project budget.

- *Provide the identity and amount of funding to be provided by funding partners, as well as the required letters of commitment.*

The project does not have any funding partners other than the Tribes.

- *Describe any funding requested or received from other Federal partners.*

The project will not utilize any funding received from other Federal partners.





- Describe any pending funding requests that have not yet been approved, and explain how the Project will be affected if such funding is denied.

The Tribal Water Resources Department currently has a pending funding request under the WaterSMART Drought Resiliency Program as a continuation of efforts funded in Fiscal Year 2016. The proposed project will not be affected by whether or not this Drought Resiliency funding request is approved for funding.

Budget Proposal

Table 2 provides a table summary of the proposed project budget. As shown, the project budget is entirely comprised of a Tribal Water Resources Department contract with WestWater Research. The budget narrative provided below explains the budget proposal in more detail.

Table 2: Budget Proposal

Budget Item	Computation		Quantity Type	Total Cost
	\$/Unit	Quantity		
Salaries and Wages				
None	-	0	hrs	\$0
Fringe Benefits				
None	-	0	hrs	\$0
Travel				
None	-	0	trips	\$0
Equipment				
None	-	-	-	\$0
Supplies & Materials				
None	-	-	-	\$0
Contractual				
WestWater Research	\$85,775	1	Lump Sum	\$85,775
Total Direct Costs				\$85,775
Indirect Costs				
None	-	-	-	\$0
Total Estimated Project Costs				\$85,775

Note: A detailed budget for WestWater Research is provided in a separate table.





Budget Narrative

The proposed project represents a collaboration between the Tribal Water Resources Department and WestWater Research. The Department and WestWater have worked together since 2007 on various water marketing and water-related economic studies. Together, the Department and WestWater have developed unique water lease agreements and conducted studies that represent some of the most forward-thinking water marketing efforts in the Eastern Idaho region. For the proposed project, the Tribal Water Resources Department will not seek any funding for Department staff salaries and related costs to support the Department's participation in the project. The project budget is intended to fund the time and expenses of WestWater Research as a contractor to the Department. The following paragraphs provide more detail on the proposed budget.

Salaries and Wages

The Project Manager for the proposed project is Else Teton, who is the Tribal Water Engineer and manages the Tribal Water Resources Department. Other key staff members are listed and described in the Technical Proposal in response to the Evaluation Criteria. Staff of the Tribal Water Resources Department intend to be actively involved in the project but are not seeking any Federal funds to support their salaries and related expenses.

Fringe Benefits

Staff of the Tribal Water Resources Department intend to be actively involved in the project but are not seeking any Federal funds to support their salaries and related expenses such as fringe benefits.

Travel

The proposed project will include a number of trips for the contractor WestWater Research. These costs are itemized in a separate budget table below. The other meetings required as part of the proposed project, such as outreach to the Michaud Unit water users and communication with the Fort Hall Business Council, represent local trips and the Tribes are not seeking any compensation under this proposal.

Equipment

No equipment will be purchased to complete the proposed project.

Materials and Supplies

No materials and supplies will be purchased to complete the proposed project.

Contractual

The project budget is intended to fund WestWater Research as a contractor to the Tribal Water Resources Department. As stated above, WestWater and the Department have been working together since 2007 on innovative and forward-thinking water marketing efforts to maximize the benefits of the Tribal Water Bank to the Tribes. The proposed project represents a continuation of these efforts. Table 3 provides a detailed budget for WestWater Research.





WaterSMART Water Marketing Strategy Grant

Table 3: WestWater Research Project Budget

Task	Sub Task	Clay Landry		Harry Seely		Brett Bovee		Research Analyst		Admin Staff		TOTAL
		Hrs	Cost	Hrs	Cost	Hrs	Cost	Hrs	Cost	Hrs	Cost	
1.Develop Work Plan	Draft Work Plan	1	\$275	0	\$0	4	\$800	0	\$0	4	\$260	\$1,335
	Respond to Comments	0	\$0	0	\$0	4	\$800	0	\$0	0	\$0	\$800
2.Scoping & Planning	Quantify Ag water use	0	\$0	4	\$880	8	\$1,600	8	\$760	0	\$0	\$3,240
	Analysis of Michaud diversions	0	\$0	0	\$0	8	\$1,600	16	\$1,520	0	\$0	\$3,120
	Analysis of Ag returns	0	\$0	16	\$3,520	8	\$1,600	32	\$3,040	0	\$0	\$8,160
	Analysis of project water costs	0	\$0	4	\$880	16	\$3,200	0	\$0	0	\$0	\$4,080
	Investigate transaction concepts	8	\$2,200	16	\$3,520	16	\$3,200	32	\$3,040	0	\$0	\$11,960
3.Develop Water Market Strategy	Identify best frameworks	8	\$2,200	8	\$1,760	16	\$3,200	0	\$0	0	\$0	\$7,160
	Draft agreements	8	\$2,200	0	\$0	16	\$3,200	0	\$0	0	\$0	\$5,400
	Evaluate program costs	0	\$0	16	\$3,520	16	\$3,200	32	\$3,040	0	\$0	\$9,760
4.Develop Comm Plan	Draft Plan	0	\$0	0	\$0	16	\$3,200	0	\$0	0	\$0	\$3,200
	Respond to Comments	0	\$0	0	\$0	4	\$800	0	\$0	0	\$0	\$800
5.Outreach	FHBC Meeting	0	\$0	0	\$0	8	\$1,600	0	\$0	0	\$0	\$1,600
	Michaud Water users meeting	0	\$0	0	\$0	8	\$1,600	0	\$0	0	\$0	\$1,600
	BIA Meeting	0	\$0	0	\$0	4	\$800	0	\$0	0	\$0	\$800
	Conference	0	\$0	0	\$0	8	\$1,600	0	\$0	0	\$0	\$1,600
6.Draft Report	Draft Report	8	\$2,200	8	\$1,760	16	\$3,200	24	\$2,280	4	\$260	\$9,700
	Respond to Comments	0	\$0	0	\$0	8	\$1,600	0	\$0	0	\$0	\$1,600
7.Management	Team Meetings	0	\$0	0	\$0	16	\$3,200	0	\$0	24	\$1,560	\$4,760
	Progress Reports	0	\$0	0	\$0	8	\$1,600	0	\$0	0	\$0	\$1,600
Labor Total												\$82,275
Travel Expenses												\$3,500
Project Total												\$85,775





The budgeted costs for WestWater Research as a contractor were compared against other projects completed by outside contractors for the Tribes, in terms of scope of work, project scale, and timeline. The costs were considered reasonable to support the scope of work presented for this project proposal. In addition, WestWater Research is uniquely qualified to complete the project in cooperation with the Tribal Water Resources Department, building on 10-year relationship during which a substantial amount of knowledge has been developed and information compiled. The proposed project will greatly benefit, in terms of cost-effectiveness, by utilizing the WestWater team to complete much of the analytical aspects of the proposed project.

WestWater staff hours to complete the proposed project are detailed in Table 3. Much of the technical analysis and reporting will be carried out by Brett Bovee, P.E. Mr. Bovee has been working with the Tribal Water Resources Department since 2005 on a wide variety of water rights, water planning, and water marketing projects. As a result, Mr. Bovee brings both a unique background in engineering and economics, and specific knowledge and experience working on related projects. The travel expenses listed in Table 3 are for WestWater Research to take 5 trips to the Reservation as part of the project. The trips will be completed both as part of the project planning and implementation, as well as to complete the important project outreach and communication aspects of the proposed project. Each trip was estimated to cost \$700 for flight, rental car, hotel, and meal expenses.

Other Expenses

No other expenses are requested for the project.

Indirect Costs

Staff of the Tribal Water Resources Department intend to be actively involved in the project but are not seeking any Federal funds to support their salaries or indirect costs.

Total Costs

The total project costs are budgeted to be \$85,775. The Tribal Water Resources Department proposes to fund 50% of the project budget. The project requests a total of \$42,887 from Reclamation under the WaterSMART Water Marketing Strategy grant program.



SHOSHONE-BANNOCK TRIBES WATER BANK ENHANCEMENT PROJECT ENVIRONMENTAL & CULTURAL RESOURCE COMPLIANCE

The proposed project will not involve any measurement, monitoring, or field work. Existing measurement data collected under existing Tribal, State, and Federal programs will be utilized to complete the project.

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

No, the project will not impact the environment. The project is an analytical desktop study.

- *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 area? If so, would they be affected by any activities associated with the proposed Project?*

Yes, there are Federal threatened and endangered (T&E) species in the area of the Michaud Unit and Fort Hall Reservation. Species listed for Power, Bannock, and Bingham counties in Idaho include: Yellow-billed Cuckoo, Gray wolf, Canada Lynx, Ute ladies-tresses, and North American wolverine. In addition, the recovery of the Chinook and Sockeye salmon runs on the Snake River are tied to Upper Snake River Basin flows. The proposed project will not impact local T&E species or critical habitat. The project has the potential to benefit salmon recovery efforts by enhancing the water supply available for marketing to Reclamation's flow augmentation program.

- *Are there wetlands or other surface waters inside the Project boundaries that potentially fall under Clean Water Act (CWA) jurisdiction as "Waters of the United States?" If so, please describe and estimate any impacts the proposed project may have.*

The project will not have any impact on Waters of the United States.

- *When was the water delivery system constructed?*

The Michaud Unit was authorized for construction in 1954 under P.L. 83-741. Construction started in 1957 and was completed in 1977.

- *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.*

The proposed project does not intend to result in any modification of or effects to the Michaud Unit irrigation system. Infrastructure projects that would modify the Michaud Unit system have been and will continue to be evaluated and discussed to achieve water supply benefits to the Tribal Water Bank, however the proposed project is strictly focused on voluntary water transfer strategies that will not involve infrastructure modifications.





- *Are any buildings, structures, or features in the irrigation district listed or eligible for listing on the National Register of Historic Places? A cultural resources specialist at your local Reclamation office or the State Historic Preservation Office can assist in answering this question.*

The proposed project will not involve any measurement, monitoring, or field work. A review of potential features listed on the National Register of Historic Places was not completed.

- *Are there any known archeological sites in the proposed area?*

The proposed project will not involve any measurement, monitoring, or field work. An inventory of known archeological sites was not completed for this proposal.

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

No, the proposed project should not have an adverse effect on low-income or minority populations. The project is intended to have a beneficial effect on the Shoshone-Bannock Tribes which have historically had a large population of low-income members. The project is also intended to have a beneficial effect on individual farmers in the Michaud Unit by providing an alternate source of income.

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

No, the project will not affect the Tribes' access to sacred and ceremonial sites, including the Fort Hall Bottoms and sites along the Portneuf River.

- *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?*

It is unclear if noxious weeds or invasive species will spread as a result of implementation of the proposed project. The project being proposed is an analytical desktop study of different water transfer frameworks, and therefore the study by itself will not result in any spread of weeds for invasive species. The project intends to be a building block for a potential agreement whereby some irrigated lands in the Michaud Unit are fallowed. When fallowed, formerly irrigated lands can succumb to noxious weeds and invasive plant species if the lands are not properly managed with a dryland cover crop. The proposed project will include the costs of cover cropping as part of the economic analysis of different frameworks.



RESOLUTION

WHEREAS, the Fort Hall Business Council has the ultimate responsibility for budget approvals and overseeing the administration of all Tribal funds as well as those funds awarded to the Shoshone-Bannock Tribes through contracts, grants and cooperative agreements, regardless of the source; and

WHEREAS, the Tribal Water Resources Department (TWRD) & Commission are responsible for administering all tribal water rights, pursuant to the "1990 Fort Hall Indian Water Rights Agreement"; and

WHEREAS, the TWRD relies upon the income generated from the Tribal Water Bank for its planning, monitoring, and administration services related to water resources, and the reliability of this income is continuously at risk due to drought conditions and variable water demands of the Michaud Unit; and

WHEREAS, the TWRD is now seeking funds from the United States Bureau of Reclamation (USBR) to develop a water marketing strategy to put into place a voluntary, market-based water transfer framework in the Michaud Unit;

NOW, THEREFORE, BE IT RESOLVED BY THE BUSINESS COUNCIL OF THE SHOSHONE-BANNOCK TRIBES, that the TWRD is hereby approved and authorized to submit a request for funding and grant application to the USBR under the Fiscal Year 2017 Water Marketing Strategy Grant (CFDA#15.507) under the WaterSMART program in the amount of \$85,775 to conduct economic analysis of water transfer frameworks which seek to improve the reliability of the Tribal Water Bank water supply. If this funding request is awarded, all required matching funds, totaling \$42,888, are to be allocated from the Tribal Water Resources Department annual budget; and

BE IT FURTHER RESOLVED, that the Fort Hall Business Council and its designees will work with the U.S. Bureau of Reclamation to meet established deadlines for entering into a grant or cooperative agreement; and

BE IT FURTHER RESOLVED, that the Tribal Chairman or official designee is authorized to sign the grant application and all associated documents required for submittal of the application.

Authority for the foregoing resolution is found in the Indian Reorganization Act of June 18, 1934 (48 Stat., 984), as amended and under Article VI, Section 1 (a, g, r) of the Constitution and Bylaws of the Shoshone-Bannock Tribes of the Fort Hall Indian Reservation of Idaho.

Dated this 11th day of April 2017


Blaine J. Edmo, Tribal Chairman
Fort Hall Business Council

S E A L

CERTIFICATION

I HEREBY CERTIFY, that the foregoing resolution was passed while a quorum of the Business Council was present by a vote of 4 in favor, 2 absent (BJE, TB) and 1 not voting (DS) on the date this bears.


Marcus C. Coby, Tribal Secretary
Fort Hall Business Council

CTRT-2017-0280