



**Proposition 84, Round 3 Implementation: Bishop Paiute Tribe Project
Priority 2 of 2: Submitted May 1, 2015**

**Bishop Paiute Tribe 2015 IRWMP Project Submission 2:
Conservation Plans for Irrigation, Domestic Water, and Wastewater for the Bishop Paiute
Reservation**

Work Plan (Pages 1-3)

Overview of Need and Purpose of the Project: The Bishop Paiute Tribe, a disadvantaged community (DAC), seeks to manage its water resources, with the goal of water conservation of the Reservation's flow from the Bishop Creek watershed and its water supply from groundwater/wells. The Reservation's 70+-year-old domestic, irrigation, and sewer systems are in need of repair and rehabilitation, and the Tribe is seeking the most efficient and cost-effective way to improve these systems in order to conserve water while providing for the Reservations residential and business needs plus possible future business development. A sub-contracted Civil Engineer who understands the Tribe's water systems and water delivery protocols will be hired to assess the condition and efficiency of the irrigation, drainage, well, domestic water storage, and wastewater needs of the Bishop Paiute Reservation, in order to plan a scope and sequence of improvements needed to serve the conservation needs of the Tribe. The Reservation receives its irrigation water from the watershed of Bishop Creek, which runs east from the Sierra Nevada into the Owens Valley, where the Reservation is located. After the water runs east through the Reservation, it enters City of Bishop and City of Los Angeles Department of Water and Power jurisdiction and the Owens River. The Project effectively addresses long-term drought preparedness because the usage of millions of gallons of irrigation and domestic water over the years could be reduced through conservation efforts that will result from the plan. Irrigation and domestic water will also not be lost to wastewater infiltration. Water use from wastewater treatment by the Eastern Sierra Community Services District will be less because less wastewater will flow out of the Reservation. Electricity use will be reduced because of the reduction in pumping water by the Tribe and the reduction in wastewater treatment by the Eastern Sierra Community Services District. The Project will also retain our Tribe's and the human right to water by allowing continued "safe, clean, affordable, and accessible water adequate for human consumption, cooking, and sanitary purposes" (AB 685).

Currently, the Reservation sustains 585 residential hook-ups, which include five mobile home parks with one meter each (approximately 60 units), and a number of commercial customers, which include two apartment buildings (38 units), Tribal offices/departments, the gas station, and the casino, plus leaseholders such as the Owens Valley Career Development Center (six buildings with one meter), Toiyabe Indian Health Project, Inc. Clinic and offices, the California Department of Motor Vehicles, and the US Forest Service/Bureau of Land Management. Domestic water is provided via groundwater wells; irrigation water is provided via a ditch and pipeline system fed from the Bishop Creek watershed; and wastewater service is provided through Eastern Sierra Community Services District.

Tasks that will be necessary to complete the project:

1. Irrigation Water Conservation Plan – A complete conservation plan for the existing **irrigation system** on the Bishop Paiute Reservation. Includes:

- i. Overall Assessment of Existing System
- ii. Future Demand and Needs Analysis
- iii. Project Development for Irrigation Projects
 - a. Rehabilitation of Existing High Volume Flood Irrigation System; b. New Low-Volume Irrigation System Utilizing Yard Hydrants: *Cost Benefit and Needs Analysis; Conceptual-Level Drawings; Preliminary Engineering Analysis; Detailed Cost Estimates for a and b*

2. Domestic Water Conservation Plan – A complete conservation plan for the existing **domestic water** system on the Bishop Paiute Reservation. Includes:

- i. Overall Assessment of Existing System
- ii. Future Demand and Needs Analysis
- iii. Analysis of Potential Water Savings
- iv. Rate Structure Analysis = Complete Domestic Water Rate Study
- v. Project Development for Domestic Water Conservation Projects
 - a. Water System Leak Survey: *Preparation of Leak Survey Plan; Ultrasonic Testing of the Water Mains and Services; Follow-up Analysis and Testing after Initial Survey; Detailed Cost Estimates*
 - b. Water Fixture Replacement Program: *Analysis of Water Savings; Preparation of Replacement Program Plan ; Detailed Cost Estimates*
 - c. Energy Conservation for Domestic Water System (Solar Energy for Three Well Pumps): *Cost Benefit and Needs Analysis; Conceptual-Level Drawings; Preliminary Engineering Analysis; Detailed Cost Estimates*

3. Wastewater Conservation Plan – A complete conservation plan for the existing wastewater system on the Bishop Paiute Reservation. Includes:

- i. Overall Assessment of Existing System
- ii. Future Demand and Needs Analysis
- iii. Analysis of Potential Water Savings
 - a. Rate Structure Analysis/Complete Wastewater Rate Study
 - b. Project Development for Domestic Water Conservation Projects
 1. Leak, Infiltration and Flow Survey: *Preparation of Leak and Infiltration Measuring Plan; Preparation of Flow Monitoring Plan; Ultrasonic Testing of the Water Mains and Services; Follow-up Analysis and Testing after Initial Survey; Analysis of Potential Water Savings; Detailed Cost Estimates*
 2. Manhole and Sewer Main Survey and Rehabilitation Plan: *Preparation of Survey and Rehabilitation Plan; Detailed Cost Estimates*

Answers to Work Plan Questions:

1) The project directly benefits the Bishop Paiute Reservation, a DAC, in the Tribe's efforts to conserve water while continuing its economic development efforts that benefit low-income residents.

2) Project status: This is a planning project and is ready to begin. Tribal Council has approved the pursuit of this plan. CEQA, NEPA, or permitting do not apply at this point because only

analysis will not cause any impacts or effects. Leak analysis will be non-ground-invasive. The Tribe's grant writer is also an Environmental Compliance Specialist (M.A., RPA, former NEPA and CEQA project manager), and has reviewed compliance of the project.

3) The following are not applicable to the Bishop Paiute Reservation: Urban Water Management Plan, Agricultural Water Management Plan, Surface Water Diverter Groundwater Management Plan, or CASGEM.

4) This project ranks second out of the two projects that the Tribe is submitting.

5) The project can be phased into an Irrigation Plan, a Domestic Water plan, and a Wastewater Plan, or can even be broken down further by line item (see table below). The Tribe has sought funding for the same project through a grant from the Bureau of Indian Affairs (BIA). The Tribe will find out about this funding in July. If the Tribe receives funding from the BIA, it will accept that funding and relinquish the right to apply for funding for this project through IRWMP.

6) The Tribe has not received Proposition 84 planning or implementation funding in previous rounds.

Description and timeline of the intended products, deliverables, or outcomes of the project:

Description	Quantity/Unit Type	Unit Price	Price	Deliverable	Responsible Party	Duration (draft/Tribe review/final)*
Request for Proposal	RFP	0	0	Approved Contract	Civil Engineer, Public Works	9 weeks
Irrigation Water Conservation Plan	1/Study and Report	\$9,000	\$9,000	Irrigation Water Conservation Plan	Civil Engineer, PW	10 weeks
Irrigation Project Development Plans	2/Plan	\$6,000	\$12,000	Irrigation Project Development Plans	Civil Engineer, PW	4 weeks
Irrigation Conservation Total			\$21,000			
Domestic Water Cons. Plan/Rate Study - Overall Report	1/Study and Report	\$11,000	\$11,000	Domestic Water Conservation Plan/Rate Study - Overall Report	Civil Engineer, PW	20 weeks (public review period)
Domestic Water Project Dev. Plans	5/Plan	\$6,000	\$30,000	Domestic Water Project Dev. Plans	Civil Engineer, PW	10 weeks
Domestic Leak Detection and Analysis/Report	1/Study and Report	\$75,000	\$75,000	Leak Detection and Analysis/Report	Geologist/Civil Engineer, PW	16 weeks
Domestic Water Conservation Total			\$116,000			
Wastewater Cons. Plan - Overall Report	1/Study and Report	\$9,000	\$9,000	Waste Water Conservation Plan - Overall Report	Civil Engineer, PW	20 weeks ¹
Wastewater Rate Study	1/Study and Report	\$10,000	\$10,000	Wastewater Rate Study	Civil Engineer, PW	20 weeks ²
Wastewater Project Development Plans	2/Plan	\$6,000	\$12,000	Wastewater Project Development Plans	Civil Engineer, PW	10 weeks
Wastewater Conservation Total			\$31,000			
Project Administration/Results: Public Works Director			2,256	Grant Oversight	PW Director	50 hours x 32.70/hr, + 38% fringe rate
Project Administration: Fiscal Specialist			1,862	Grant Oversight	Fiscal Specialist	50 hours x 28/hr, + 33%
Administration Total			4,118			
Proposal Preparation: Grant Writer/Planner			2,844	Grant Writing	Grant Writer	60 hours x 35.64/hr, + 33%
Proposal Support Costs			1,750	Grant Writing	Grant Writer	NA
Writing Total			4,594			
TOTAL FOR CONTRACT			\$176,712	TOTAL DURATION		79 weeks

¹ Public review period—concurrent with Water rate study.

² Public review period—concurrent with Water rate study.

Budget

Category	Requested Grant Amount	Cost Share: Non-State Fund Source	Cost Share: Other State Fund Source	Total Cost
(a) Direct Project Administration	4,118	0	0	4,118
→ Proposal preparation	4,594	0	0	4,594
(b) Land Purchase/Easement	0	0	0	0
(c) Planning/Design/Engineering/Environmental Documentation	168,000	0	0	168,000
(d) Construction/Implementation	0	0	0	0
(e) Grand Total	176,712	0	0	176,712

Schedule:

Proposed start date: March 1, 2016 (RFP in January). **Proposed end date:** June 30, 2017

Estimated useful life of project: 20 years.

Year →	2016												2017					
Month →	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J
Task ↓																		
RFP	■	■																
Irrigation Conservation Plan			■	■	■	■												
Irrigation Dev. Plans						■												
Domestic Cons. Plan/Rate Study													■	■	■	■	■	■
Domestic Water Project Dev. Plans																		■
Domestic Leak Detection /Analysis							■	■	■	■	■							
Wastewater Conservation Plan													■	■	■	■	■	■
Wastewater Rate Study													■	■	■	■	■	■
Wastewater Project Development Plans													■	■	■	■	■	■
Project and Fiscal Oversight	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■