

Final Environmental Assessment

RECLAMATION

Managing Water in the West

Final Environmental Assessment

Smith River Rancheria Water Resource Development Project



U.S. Department of the Interior
Bureau of Reclamation
Mid-Pacific Region
Regional Office
Sacramento, CA

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Mission Statements

The mission of the Department of the Interior is to protect and provide access to our Nation's natural and cultural heritage and honor our trust responsibilities to Indian Tribes and our commitment to island communities.

The mission of the Bureau of Reclamation is to manage, develop, and protect water and related resources in an environmentally and economically sound manner in the interest of the American public.



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List of Acronyms, Abbreviations, and Definition of Terms

APE	Area of Potential Effect
EA	Environmental Assessment
FWCA	Fish and Wildlife Coordination Act
gpd	Gallons Per Day
gpm	Gallons Per Minute
ITA	Indian Trust Assets
NHPA	National Historic Preservation Act
NRHP	National Register of Historic Places
Reclamation	Bureau of Reclamation
SRR	Smith River Rancheria
SHPO	State Historic Preservation Officer
THPO	Tribal Historic Preservation Office
UIHS	United Indian Health Services
Service	U.S. Fish and Wildlife Service

Section 1 Purpose and Need for Action

1.1 Introduction

Under the Bureau of Reclamation (Reclamation) States Emergency Drought Relief Act of 1991, as amended (Drought Act), and other authorities, Reclamation is planning to use \$40 million from the American Recovery and Reinvestment Act (ARRA) to fund emergency drought relief projects that can quickly and effectively mitigate the consequences of the current drought in California.

2009 was the third consecutive year of drought conditions in the State of California. Governor Schwarzenegger has declared a drought emergency for the entire state. The Smith River Rancheria (SRR) Tolowa Indian Tribe is suffering from the prolonged drought and experiencing severe effects to the health and safety of tribal members. In compliance with Section 104 of the Drought Act, the Tolowa Tribe has declared a drought emergency and requested Reclamation's assistance for the purpose of installing and developing a community well to provide an alternative source of water on the SRR.

The SRR is a federally recognized Indian Tribe of the Tolowa Indians that was established in 1908. The federally recognized jurisdiction and service area (near or on reservation status) includes Humboldt and Del Norte Counties in California and Coos, Curry and Josephine Counties in Oregon, which includes 6,947 square miles of land. The Tribe has grown to over 1,200 tribal members with most of the tribal population concentrated in a corridor stretching from Crescent City, California, to Brookings, Oregon. Del Norte County is the northernmost county on the California coast and Curry County is the southernmost county on the Oregon coast. The area is rural in nature with communities bordering on large tracts of public land with spectacular and remote landscapes to the east and the Pacific Ocean to the west.

SRR is located three miles south of the Oregon-California border in Del Norte County, California (See Figure 1). The SRR Tribal Council is the duly elected governing body of the SRR with the Constitutional duties and responsibilities to preserve, protect, and promote the best interest of the SRR.

The existing Howonquet Community Water System that serves the SRR relies on Gilbert Creek for their water supply which provides service to 49 homes and the United Indian Health Services (UIHS) health clinic. The water system includes a creek infiltration gallery, intake piping from the gallery to an underground wetwell (raw water storage), a well subject to the influence of surface water adjacent to the building, a 100,000 gallon treated water storage tank, and over 8,000 feet of water distribution mains.

The existing creek infiltration gallery and well that serve the system are subject to the influence of surface water. This in turn provides for an unstable supply to the system

when either dry weather conditions do not provide enough water for the system and/or high water flows increase the turbidity levels to an untreatable level. The current operation poses a potential health risk/threat to all the residents that utilize the system.

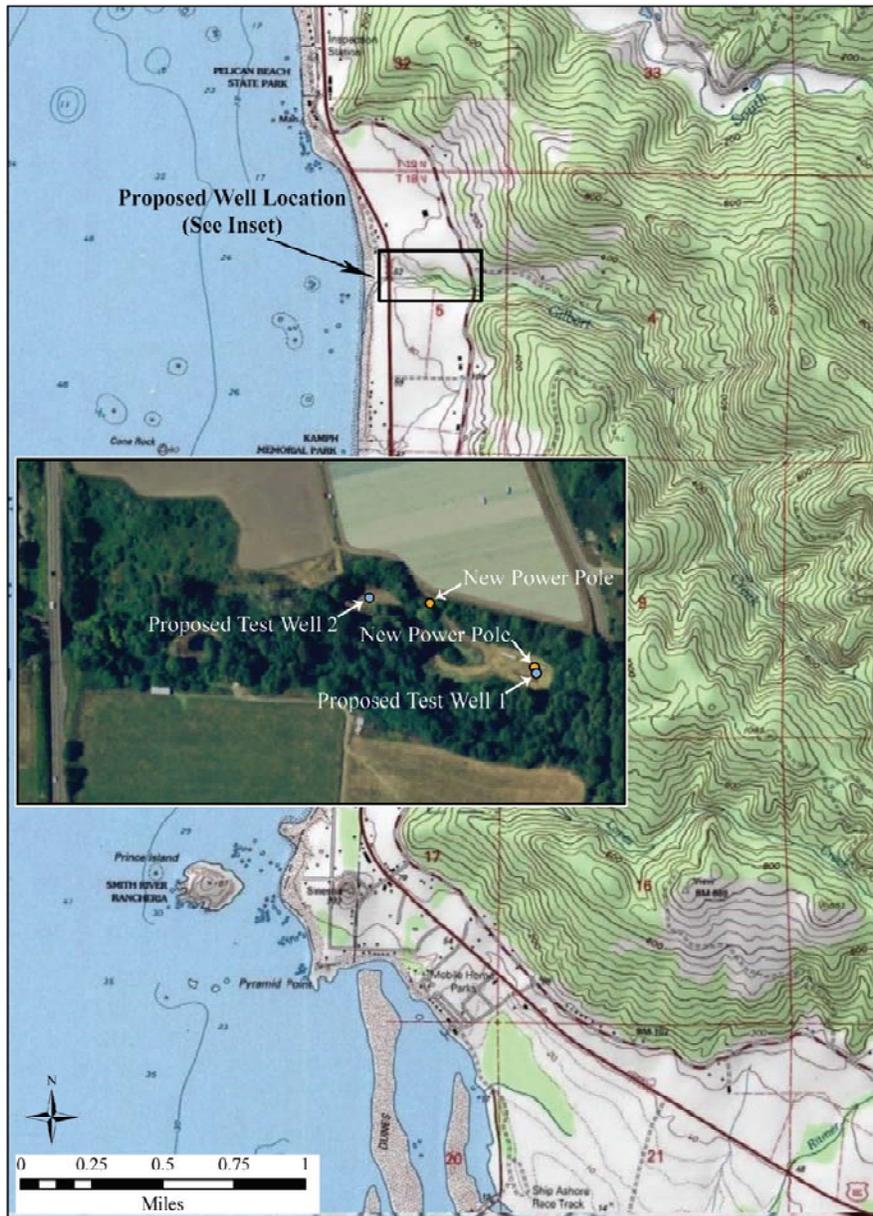


Figure 1 – Proposed Action area

1.2 Purpose and Need

In response to the ongoing drought and the SRR's request for assistance, Reclamation proposes to provide ARRA funding for the installation and development of a community well. The purpose of the Proposed Action is to provide an alternative source of water to the SRR to reduce the health risks associated with their current operation. The existing water source that serves the SRR is subject to the influence of surface water. This in turn provides for an unstable supply to the system when either dry weather conditions do not provide enough water for the system and/or high water flows increase the turbidity levels to an untreatable level. The Tolowa Tribe is in need of an alternative source of water to replace up to 50 gallons per minute (gpm) of surface water production capacity with an equivalent in groundwater capacity to aid in reducing health risks to the Tribe.

1.3 Potential Resource Issues

The resource areas listed below have the potential to be affected by the Proposed Action and are discussed in Sections 3.1 through 3.9.

- Surface Water Resources
- Groundwater Resources
- Geology and Soils
- Land Use
- Biological Resources
- Cultural Resources
- Indian Trust Assets
- Environmental Justice
- Climate Change

1.4 Resources Not Analyzed in Detail

Based on review of the Proposed Action, it was determined that the Proposed Action would not impact the following resources: water quality, fisheries, recreation, air quality, visual, transportation, noise, hazards and hazardous materials, and socioeconomics. Hence, impacts to these resources are not analyzed in this environmental assessment (EA).

Section 2 Alternatives Including Proposed Action

2.1 No Action Alternative

The No Action Alternative would include Reclamation not providing funding to the SRR to research, locate, and test two possible well locations, and install and develop a community well to provide an alternative source of water. Under this alternative, the SRR would continue with their current source of water which results in potential health issues to the Tribe.

2.2 Proposed Action Alternative

The Proposed Action would include ARRA funding by Reclamation to research, locate, and test two possible well locations (see Figure 1), and install and develop a community well for the SRR Tolowa Tribe to replace up to 50 gpm of surface water production capacity with an equivalent in groundwater capacity. The initial well design would be based on subsurface information collected from the test boring and would be consistent with Cal Water Works standards and public health and safety.

The two proposed test sites are located within T18N R1W Section 5 in the Smith River 7.5 minute US Geological Survey (USGS) quadrangle. The first proposed well site (and the preferred site) would be located on an open field with an area approximately 174 feet east/west and 103' north/south (see Figure 1 and 2). There is an existing access road that could be utilized for equipment entering and exiting the site during construction. No vegetation removal would be required. The project area would serve as the staging area for all aspects of construction activities. The drilling operation for the wells would be approximately 50' in diameter making the edge of the 50' diameter footprint 53' from the edge of Gilbert Creek. The second proposed well site would also be located on an open field approximately 141' east/west and 95' north/south (see Figure 1 and 3) and 45' from Gilbert Creek. This site also has existing access and no vegetation removal would be required. Once a well site is chosen for final development, the second site will be capped with gravel and concrete and abandoned in place per the County Health Department requirements.



Figure 2 – Proposed Well Site #1



Figure 3 – Proposed Well Site #2

Section 3 Affected Environment & Environmental Consequences

The SRR is within the Smith River watershed which is located in the Smith River groundwater basin and extends from the western slopes of the Coastal Range to the coastline where it enters the Pacific Ocean. Gilbert Creek is a first-order perennial coastal watercourse that is within the Smith River watershed which the SRR relies on for their water supply. Gilbert Creek flows directly into the Pacific Ocean and is identified as being within Zone A Floodplains (100-year).

According to the Smith River USGS 7.5 minute quadrangle, the elevations in this area range from approximately 40 to 120 feet above sea level. Average precipitation in June is approximately 1.78 inches, and the average precipitation in December is approximately 12.56 inches. Annual precipitation ranges from 65 to 77 inches, increasing to the northeast. The average daily temperature in July is approximately 61.7°F, and the average daily temperature in January is approximately 41.4°F.

The SRR includes housing developments, commercial developments (Lucky 7 Casino and gas station), facilities (UIHS Health Clinic, Tribal facility, and Tribal Head Start), future housing developments, and open space. The Proposed Action area is dominated with a canopy of red alder (*Alnus rubra*), an understory of Scouler's willow (*Salix scouleriana*) and a ground cover of salmon berry (*Rubus spectabilis*), slough sedge (*Carex obnupta*), skunk cabbage (*Lysichiton americana*) and water parsley (*Oenanthe sarmentosa*).

3.1 Surface Water Resources

3.1.1 Affected Environment

Surface water resources in the Proposed Action area include Gilbert Creek. Gilbert Creek rises in the northern part of T18 N R1 W Section 5, Humboldt base and meridian and flows northwestward to the point at which it enters the Pacific Ocean, two miles north of the mouth of Smith River. Gilbert Creek is about two miles in length and is a first-order perennial coastal watercourse that is within the Smith River watershed.

Currently, the SRR relies on the existing Howonquet Community Water System which diverts approximately 50 gpm from Gilbert Creek. The water system includes a creek infiltration gallery, intake piping from the gallery to an underground wetwell (raw water storage), a well subject to the influence of surface water adjacent to the building, a pressure filter with associated fluoridation and chlorination equipment in the building, a 100,000 gallon treated water storage tank, and over 8,000 feet of water distribution mains. The system provides service to 49 homes and the UIHS health clinic for the SRR.

The existing creek infiltration gallery and well that serve the system are subject to the influence of surface water. This in turn provides for an unstable supply to the system when either dry weather conditions do not provide enough water for the system and/or high water flows increase the turbidity levels to an untreatable level. The current infiltration system poses a potential health risk/threat to all the residents who utilize the system.

3.1.2 Environmental Consequences

No Action

Under the No Action Alternative, SRR would not research, locate, and test two possible well locations, and install and develop a community well to provide an alternative source of water. Under the No Action Alternative, surface water use would not increase or decrease and, therefore, would have no impacts to surface water.

Proposed Action

Under the Proposed Action, the SRR would research, locate, and test two possible well locations, and install and develop a community well for the SRR Tolowa Tribe to replace up to 50 gpm of surface water production capacity with an equivalent in groundwater capacity. The Proposed Action would not decrease surface water in the project area and in fact would decrease the amount of surface water withdrawn from Gilbert Creek to be utilized by the SRR therefore benefiting surface water resources in the project area. The Proposed Action would not result in short-term or long-term adverse impacts to surface water or the resources dependent on surface water.

Cumulative Effects

The Proposed Action would not result in adverse impacts to surface water and therefore, would not contribute to cumulative impacts to surface water resources.

3.2 Groundwater Resources

3.2.1 Affected Environment

The SRR is located in the Smith River Plain Groundwater Basin (# 1-1) in Del Norte County. The Smith River Plain Groundwater Basin is located in the extreme northwest corner of California and has a surface area of 40,450 acres. The plain is irregular in shape narrowing to the south against the steep scarp of the faulted mountain headland. The major structural feature in the basin is the inferred Del Norte fault which constitutes the basin boundary to the north and east. The north end of the plain narrows at the mouth of the Smith River to a marine terrace less than one mile wide that continues into Oregon. The Smith River crosses the northern portion of the plain near the town of Smith River and is the major watercourse responsible for most of the floodplain deposits in the area (DWR 2004).

Recharge is accomplished by direct infiltration of precipitation, subsurface inflow from surface water/precipitation infiltration of alluvial fans or dune areas, and infiltration of

runoff in the lower reaches of the Smith River and other permeable stream channels. Review of hydrographs for long-term comparison of spring groundwater levels indicates a slight decline associated with the 1976-77 and 1987-94 droughts, followed by a recovery to pre-drought conditions of the early 1970s and 1980s. Generally, groundwater level data show a seasonal fluctuation of approximate five to 15 feet for normal and dry years. Overall, there does not appear to be any increasing or decreasing trends in groundwater levels.

Storage capacity in the basin is estimated to be 99,350 acre-feet based on a surface area of 31,070 acres, a depth interval of 10- to 35-feet below ground surface, and an average specific yield of 12.8 percent (DWR 2004).

The Proposed Action area is located within the Gilbert Creek floodplain. Published mapping indicates the Gilbert Creek floodplain is underlain by very permeable sand and gravel alluvial deposits. Beneath the floodplain are sand and gravel deposits that rest on the low to moderate permeable marine sand and clay deposits of the Battery Formation.

The Battery Formation is the principal aquifer north of the Smith River. The producing zones consist of lenticular beds of fine to medium grained, well sorted sand. Depth to this aquifer averages about 20 feet. Groundwater in this aquifer is either perched or unconfined. Permeability ranges from 150- to 900-gallons per day (gpd) per square foot and is commonly about 350- to 450-gpd per square foot. The formation is moderately permeable, but has limited saturated thickness. Well yields in this area are large enough for domestic and limited irrigation uses (DWR 2004).

3.2.2 Environmental Consequences

No Action

Under the No Action Alternative, SRR would not research, locate, and test two possible well locations, and install and develop a community well to provide an alternative source of water. Under the No Action Alternative, the SRR would carry on with current practices and no additional groundwater resources would be affected.

Proposed Action

Under the Proposed Action, the SRR would research, locate, and test two possible well locations, and install and develop a community well for the SRR Tolowa Tribe to replace up to 50 gpm of surface water production capacity with an equivalent in groundwater capacity. Based on existing data, it is anticipated that groundwater production from the aquifer beneath the Gilbert Creek floodplain could be on the order of up to 100 gpm. The amount of groundwater that would be utilized by the Proposed Action would not exceed the daily amount that would result in overdraft of the Smith River groundwater basin. The Proposed Action is located in an area with permeable sand and gravel deposits that result in groundwater amounts that could be utilized for well yields large enough for domestic use. The Proposed Action would not result in short-term or long-term adverse impacts to groundwater resources in the Smith River groundwater basin.

Cumulative Effects

The Proposed Action would not result in adverse impacts to groundwater resources and therefore, would not contribute to cumulative impacts to groundwater resources.

3.3 Geology and Soils

3.3.1 Affected Environment

Del Norte County can be divided into two topographic entities; the mountainous portion of the County (approximately 92% of the total County area) and the restricted coastal lowland and dismembered assemblage of mainly marine rocks deposited during a time span of 90,000 to 145,000 years ago (Winzler & Kelly 2008).

At the SRR, marine deposits along the banks of the Pacific Ocean can be equated to the young alluvium of the Smith River. This coastal platform remained under water until recent times when it was uplifted. Two formations of importance are distinguished on the top of the platform. The first, deposited in Pliocene time, is about 350 to 400 feet thick and is composed mainly of fine grained sediments that are not conducive to recharge which is necessary for deep water supply. It is known as the Saint George formation. The second was deposited in the last 1,000,000 years, and covers most of the Proposed Action area. It is about 35 feet thick lying on top of the Saint George formation and has a high water yielding capacity. This shallow deposit is known as the Battery formation. The Battery formation consists of alternating sand and clay beds with interbedded continental deposits of stream gravel and sand. Well logs and seismic data indicate that it is 30 to 70 feet thick. It underlies most of the plain south and east of Lake Earl and forms the narrow marine terrace north of the mouth of Smith River (DWR 2004).

Soils found at the Gilbert Creek are a Rowdy loam and consist of the Arcata series. This soil formed in an old marine terrace that slopes gently westward to the Pacific Ocean. Slopes are zero to three percent. The surface layer is loam to clay loam with an effective depth of 26 inches. This soil is well drained and has good permeability. Runoff is slow and hazards of erosion are very small (Winzler & Kelly 2008).

The Klamath Mountains are traversed by many faults including two major thrust faults that extend roughly north and south and dip to the east. Fault lines are used to define boundaries between ecological subsections in the Smith River watershed. Numerous additional faults are located offshore within 14 miles of the coast. Earthquakes generated from active faults farther to the south including the Trinidad Fault and the Little Salmon Fault may also affect the Smith River area.

Seismic stability problems in the Crescent City/Smith River area are related mainly to the presence of the unstable Franciscan rocks beneath hillsides. Alluvial materials underlying the flood plain of the Smith River and small tributary valleys are not likely to result in significant liquefaction because of their coarse consistency. Differential compaction could occur if structures are built straddling two different types of foundation materials,

or are built on poorly compacted fill. Minor lurching is possible close to the margins of steep banks formed from alluvial materials.

3.3.2 Environmental Consequences

No Action

Under the No Action Alternative, SRR would not research, locate, and test two possible well locations, and install and develop a community well to provide an alternative source of water resulting in no adverse impacts to geology or soils.

Proposed Action

Under the Proposed Action, the SRR would research, locate, and test two possible well locations, and install and develop a community well for the SRR Tolowa Tribe to replace up to 50 gpm of surface water production capacity with an equivalent in groundwater capacity. The Proposed Action area is not located within an Alquist-Priolo special study zone as classified by the CDMG, thus indicating that no "active faults" (movement occurring in the last 10,000 years) or "potentially active faults" (movement occurring in the last 1.6 million years) are identified or significantly close to the Proposed Action area. Furthermore, review of the Preliminary Fault Activity Map of California, CDMG Report 92-03, 1992 indicates that no known faults are mapped either in the site boundaries or on nearby land.

At the project site, soil structure in the surface layers is fairly strong. This strong structure and the high amount of organic matter in the surface help to stabilize soil particles and decrease susceptibility to detachment and transport by water (i.e., erosion). If existing vegetative cover is destroyed by heavy equipment traffic, potential for erosion is increased, especially on slopes steeper than about 10 percent. Slopes in the Proposed Action area are zero to three percent and do not pose an erosion problem. The Proposed Action would not result in short-term or long-term adverse impacts to geology or soils.

Cumulative Effects

The Proposed Action would not result in adverse impacts to geology or soils and therefore, would not contribute to cumulative impacts to geology or soils on the SRR or the surrounding area.

3.4 Land Use

3.4.1 Affected Environment

The SRR land use consists of housing developments, commercial developments (Lucky 7 Casino, gas station), facilities (UIHS Health Clinic, Tribal facility, and Tribal Head Start), future housing developments, and open space. The Project Action area is zoned as open space and is located in an open field.

3.4.2 Environmental Consequences

No Action

Under the No Action Alternative, SRR would not research, locate, and test two possible well locations, and install and develop a community well to provide an alternative source of water and would continue their current land use practices.

Proposed Action

Under the Proposed Action, the SRR would research, locate, and test two possible well locations, and install and develop a community well for the SRR Tolowa Tribe to replace up to 50 gpm of surface water production capacity with an equivalent in groundwater capacity. The Proposed Action would not result in any land use changes and therefore, the Proposed Action would not result in short-term or long-term adverse impacts to land use in the project area.

Cumulative Effects

The Proposed Action would not result in adverse impacts to land use and therefore; would not contribute to cumulative impacts to land use on the SRR or the surrounding area.

3.5 Biological Resources

3.5.1 Affected Environment

The Project Action area is zoned as open space and is located in an open field. The habitat associated with the surrounding area of Gilbert Creek is dominated with a canopy of red alder, an understory of Scouler’s willow and a ground cover of salmon berry, slough sedge, skunk cabbage and water parsley.

Below the break in slope the Gilbert Creek right bank is dominated by red alder, Sitka spruce, sword fern, red elderberry, coyote brush, Douglas iris, stinging nettle, cascara, wild cucumber and California aster.

Potentially Affected Listed and Proposed Species for the Smith River Rancheria Area

The following table includes federally listed, proposed and candidate species potentially occurring within the Proposed Action area. The list was generated on October 27, 2009 (Document # 968236620-121415) by accessing the U.S. Fish and Wildlife Service (Service) Arcata Field Office’s website (<http://www.fws.gov/arcata/specieslist>) Database.

Table 1: Species Identified as Potentially Occurring in the Smith River USGS 7.5-minute Quadrangles

Common Name	Scientific Name	Federal Status	Habitat in Proposed Action Area
INVERTEBRATES			
<i>Haliotis cracherodii</i>	black abalone	PE	No
<i>Polites mardon</i>	Mardon skipper	C	
<i>Speyeria zerene hippolyta</i>	Oregon silverspot	T	No

	butterfly		
Reptiles			
<i>Caretta caretta</i>	loggerhead turtle	T	No
<i>Chelonia mydas</i>	green turtle	T	No
<i>Dermochelys coriacea</i>	leatherback turtle	E	No
<i>Lepidochelys olivacea</i>	olive (Pacific_ridley sea turtle)	T	No
FISH			
<i>Eucyclogobius newberryi</i>	Tidewater goby	E	No
<i>Oncorhynchus kisutch</i>	S. OR/N. CA coho salmon	T	No
<i>Thaleichthys pacificus</i>	Southern eulachon DPS	PT	No
BIRDS			
<i>Brachyramphus marmoratus</i>	marbled murrelet	T	No
<i>Charadrius alexandrinus nivosus</i>	western snowy plover	T	No
<i>Coccyzus americanus</i>	Western yellow-billed cuckoo	C	No
<i>Pelecanus occidentalis</i>	brown pelican	E	No
<i>Phoebastria albatrus</i>	short-tailed albatross	E	No
<i>Strix occidentalis caurina</i>	northern spotted owl	T	No
<i>Synthliboramphus hypoleucus</i>	Xantus's murrelet	C	No
MAMMALS			
<i>Balaenoptera borealis</i>	sei whale	E	No
<i>Balaenoptera musculus</i>	blue whale	E	No
<i>Balaenoptera physalus</i>	fin whale	E	No
<i>Eumetopias jubatus</i>	Steller (northern sea-lion)	T	No
<i>Martes pennanti</i>	fisher, West Coast DPS	C	No
<i>Megaptera novaengliae</i>	humpback whale	E	No
<i>Physeter macrocephalus</i>	sperm whale	E	No

Key:

- (PE) Proposed Endangered – Proposed in the Federal Register as being in danger of extinction
- (PT) Proposed Threatened – Proposed as likely to become endangered within the foreseeable future
- (E) Endangered– Listed in the Federal Register as being in danger of extinction
- (T) Threatened – Listed as likely to become endangered within the foreseeable future
- (C) Candidate – Candidate which may become a proposed species

3.5.2 Environmental Consequences

No Action

Under the No Action Alternative, SRR would not research, locate, and test two possible well locations, and install and develop a community well to provide an alternative source of water resulting in no adverse impacts to biological resources.

Proposed Action

Under the Proposed Action, the SRR would research, locate, and test two possible well locations, and install and develop a community well for the SRR Tolowa Tribe to replace up to 50 gpm of surface water production capacity with an equivalent in groundwater

capacity. Biological surveys were completed by Winzler and Kelly, Consulting Engineers for the Itzen Bulb Farm which is located adjacent to Gilbert Creek and the SRR. The only known sensitive species occurring in the project area is the coastal cutthroat trout (*Oncorhynchus clarkia clarkii*) in Gilbert Creek, which is listed as a state species of concern (Winzler & Kelly 2008). Due to the fact that the Proposed Action does not include in-stream work the Proposed Action would not cause adverse impacts to the coastal cutthroat trout. The locations of the test holes and the community well would be located in an open field and would not be within habitat that supports any of the above listed species and therefore, the Proposed Action would not result in short-term or long-term adverse impacts to biological resources in the project area or surrounding area. No wilderness designations or unique ecosystem, biological community or its inhabitants are expected to be impacted by the project.

Cumulative Effects

The Proposed Action would not result in adverse impacts to biological resources and therefore, would not contribute to cumulative impacts to biological resources.

3.6 Cultural Resources

3.6.1 Affected Environment

A cultural resource is a broad term that includes prehistoric, historic, architectural, and traditional cultural properties. The National Historic Preservation Act (NHPA) of 1966 is the primary Federal legislation that outlines the Federal Government's responsibility to cultural resources. Section 106 of the NHPA requires the Federal Government to take into consideration the effects of an undertaking on cultural resources listed on or eligible for inclusion in the National Register of Historic Places (NRHP). Those resources that are on, or eligible for inclusion on, the NRHP are referred to as historic properties.

The Section 106 process is outlined in the Federal regulations at 36 Code of Federal Regulations (CFR) Part 800. These regulations describe the process that the Federal agency (Reclamation) takes to identify cultural resources and the level of effect that the proposed undertaking will have on historic properties. In summary, Reclamation must first determine if the action is the type of action that has the potential to affect historic properties. If the action is the type of action to affect historic properties, Reclamation must identify the area of potential effects (APE), determine if historic properties are present within that APE, determine the effect that the undertaking will have on historic properties, and consult with the State Historic Preservation Office (SHPO), to seek concurrence on Reclamation's findings. In addition, Reclamation is required through the Section 106 process to consult with Indian Tribes concerning the identification of sites of religious or cultural significance, and consult with individuals or groups who are entitled to be consulting parties or have requested to be consulting parties.

In an effort to identify historic properties, Reclamation reviewed its archaeological site index and project data. A Reclamation Archaeologist also searched the cultural resources files located at the Bureau of Indian Affairs. No inventories or cultural resources were identified within the project area by these sources. Reclamation requested an expedited

records search by the North Coastal Information Center in Klamath, California on January 22, 2010. No cultural resources were identified. Reclamation sent a letter to the Smith River Tribe on January 21, 2010 to invite their assistance in identifying sites of religious and cultural significance pursuant to the regulations at 36 CFR 800.3(f)(2) and 36 CFR Part 800.4(a)(4). No historic properties were identified. Reclamation consulted with the Tribal Historic Preservation Officer (THPO) regarding this undertaking and a finding of no historic properties affected pursuant to 36 CFR Part 800.4(d)(1) on February 17, 2010. The THPO concurred with Reclamations' findings and determination on February 24, 2010.

3.6.2 Environmental Consequences

No Action

Under the No Action Alternative, SRR would not research, locate, and test two possible well locations, and install and develop a community well to provide an alternative source of water resulting in no adverse impacts to cultural or archaeological resources, or sacred sites. Under the No Action Alternative, there are no impacts to cultural resources since there would be no change in operations and no ground disturbance. Conditions related to cultural resources would remain the same as existing conditions.

Proposed Action

Under the Proposed Action, the SRR would research, locate, and test two possible well locations, and install and develop a community well for the SRR Tolowa Tribe to replace up to 50 gpm of surface water production capacity with an equivalent in groundwater capacity. The Proposed Action is the type of activity that has the potential to affect historic properties. A records search and Tribal consultation failed to identify any historic properties within the project area. Since no historic properties will be affected, no cultural resources will be impacted as a result of implementing proposed action.

If cultural or archaeological resources are encountered during site construction or drilling activities, work would stop and the Reclamation Regional Archaeologist would be notified immediately.

Cumulative Effects

The Proposed Action would not result in adverse impacts to cultural resources and, therefore, would not contribute to cumulative impacts to cultural resources.

3.7 Indian Trust Assets

3.7.1 Affected Environment

Indian Trust Assets (ITAs) are legal interests in property or rights held in trust by the United States for Indian Tribes or individuals. Trust status originates from rights imparted by treaties, statutes, or executive orders. These rights are reserved for, or granted to, tribes. A defining characteristic of an ITA is that such assets cannot be sold, leased, or otherwise alienated without Federal approval.

Indian reservations, rancherias, and allotments are common ITAs. Allotments can occur both within and outside of reservation boundaries and are parcels of land where title is held in trust for specific individuals. Additionally, ITAs include the right to access certain traditional use areas and perform certain traditional activities.

It is Reclamation policy to protect ITAs from adverse impacts resulting from its' programs and activities whenever possible. Types of actions that could affect ITAs include an interference with the exercise of a reserved water right, degradation of water quality where there is a water right or noise near a land asset where it adversely affects uses of the reserved land.

3.7.2 Environmental Consequences

No Action

Under the No Action Alternative, SRR would not research, locate, and test two possible well locations, and install and develop a community well to provide an alternative source of water and would not adversely affect ITAs.

Proposed Action

Under the Proposed Action, the SRR would research, locate, and test two possible well locations, and install and develop a community well for the SRR Tolowa Tribe to replace up to 50 gpm of surface water production capacity with an equivalent in groundwater capacity. The Proposed Action would not adversely affect ITAs. In fact, the Proposed Action would benefit the SRR and their ITAs by providing an alternative water source and thus removing potential health issues associated with their current water source.

Cumulative Effects

The Proposed Action would not result in adverse impacts to ITAs and therefore, would not contribute to cumulative impacts to ITAs.

3.8 Environmental Justice

3.8.1 Affected Environment

Executive Order 12898 requires each Federal agency to achieve environmental justice as part of its mission, by identifying and addressing disproportionately high adverse human health or environmental effects, including social and economic effects, of its programs and activities on minority populations and low-income populations of the United States.

3.8.2 Environmental Consequences

No Action

Under the No Action Alternative, SRR would not research, locate, and test two possible well locations, and install and develop a community well to provide an alternative source of water and would continue their current operation resulting in no adverse impacts to environmental justice.

Proposed Action

Under the Proposed Action, the SRR would research, locate, and test two possible well locations, and install and develop a community well for the SRR Tolowa Tribe to replace up to 50 gpm of surface water production capacity with an equivalent in groundwater capacity. The Proposed Action would not disproportionately impact economically disadvantaged or minority populations. In fact, the Proposed Action would address existing negative effects upon a minority population and improve the standard of living by providing an alternative water source that is of better quality than their current water source.

Cumulative Effects

As the Proposed Action does not have the potential to cause adverse impacts to economically disadvantaged or minority populations, and in fact would actually benefit the SRR by providing an alternative water source that is of better quality than their current water source, the Proposed Action could potentially result in cumulative benefits for the SRR.

3.9 Global Climate Change

3.9.1 Affected Environment

The United Nations Intergovernmental Panel on Climate Change predicts that changes in the earth's climate will continue through the 21st century and that the rate of change may increase significantly in the future because of human activity. Many researchers studying California's climate believe that changes in the earth's climate have already affected California and will continue to do so in the future. Climate change may seriously affect the State's water resources. Temperature increases could affect water demand and aquatic ecosystems. Changes in the timing and amount of precipitation and runoff could occur.

Climate change is identified in the 2005 update of the California Water Plan (Bulletin 160-05) as a key consideration in planning for the State's future water management. The 2005 Water Plan update qualitatively describes the effects that climate change may have on the State's water supply. It also describes efforts that should be taken to quantitatively evaluate climate change effects for the next Water Plan update.

3.9.2 Environmental Consequences

No Action

Under the No Action Alternative, SRR would not research, locate, and test two possible well locations, and install and develop a community well and would have no effect on climate change.

Proposed Action

Under the Proposed Action, the SRR would research, locate and test two possible well locations, and install and develop a community well for the SRR Tolowa Tribe to replace

up to 50 gpm of surface water production capacity with an equivalent in groundwater capacity. The Proposed Action would not include any significant change on the composition of the atmosphere and therefore would not result in adverse impacts to climate change.

Cumulative Effects

The Proposed Action would not result in adverse impacts to climate change and, therefore, would not contribute to cumulative impacts to climate change.

Section 4 Consultation and Coordination

While no impacts to endangered species or to historic/cultural resources have been indicated by the Proposed Action, consultation and coordination was conducted with the agencies and mandates considered below.

4.1 Fish and Wildlife Coordination Act (16 USC 661 et seq.)

The Fish and Wildlife Coordination Act (FWCA) requires that Reclamation consult with fish and wildlife agencies (federal and state) on all water development projects that could affect biological resources. The Proposed Action does not involve any new impoundment or diversion of waters, channel deepening, or other control or modification of a stream or body of water as described in the statute; therefore the FWCA does not apply.

4.2 Endangered Species Act (16 USC. 1531 et seq.)

Section 7 of this Act requires Federal agencies to ensure that all federally associated activities within the United States do not jeopardize the continued existence of threatened or endangered species or result in the destruction or adverse modification of the critical habitat of these species. Action agencies must consult with the Service, which maintains current lists of species that have been designated as threatened or endangered, to determine the potential impacts a project may have on protected species.

Reclamation determined that the Proposed Action would have no effect on federally proposed or listed threatened and endangered species or their proposed or designated critical habitat. No further consultation is required under Section 7 of the Endangered Species Act.

4.3 Migratory Bird Treaty Act (16 USC § 703 et seq.)

The Migratory Bird Treaty Act (MBTA) implements various treaties and conventions between the U.S. and Canada, Japan, Mexico and the former Soviet Union for the protection of migratory birds. Unless permitted by regulations, the Act provides that it is unlawful to pursue, hunt, take, capture or kill; attempt to take, capture or kill; possess, offer to or sell, barter, purchase, deliver or cause to be shipped, exported, imported, transported, carried or received any migratory bird, part, nest, egg or product, manufactured or not. Subject to limitations in the Act, the Secretary of the Interior (Secretary) may adopt regulations determining the extent to which, if at all, hunting, taking, capturing, killing, possessing, selling, purchasing, shipping, transporting or exporting of any migratory bird, part, nest or egg will be allowed, having regard for temperature zones, distribution, abundance, economic value, breeding habits and migratory flight patterns.

Migratory bird survey would be completed prior to project construction in compliance with the MBTA.

4.4 National Historic Preservation Act (16 USC § 470 et seq.)

Section 106 of the National Historic Preservation Act requires federal agencies to evaluate the effects of federal undertakings on historical, archaeological and cultural resources. Due to the nature of the Proposed Action, there would be no impacts to any historical, archaeological or cultural resources, and no further compliance actions are required.

Section 5 List of Preparers and Reviewers

Carolyn Bragg, Natural Resources Specialist, Mid-Pacific Region
Shelly Hatleberg, Natural Resources Specialist, Mid-Pacific Region
Amy Barnes, Archaeologist, MP-153
Patricia Rivera, Indian Trust Assets, MP-400

Section 6 Public Involvement

The Draft EA was made available for public review beginning April 7, 2010 and ending April 20, 2010. The Draft EA was posted on Reclamation's Mid-Pacific (MP) Region website. No comments were received during the comment period.

Section 7 References

DWR (California Department of Water Resources)

- 2004 *California Groundwater Bulletin 118*
http://www.water.ca.gov/pubs/groundwater/bulletin_118/basindescriptions/1-1.pdf

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- 2007 *Phase 1 Environmental Site Assessment for Assessor's Parcel Numbers 101-010-011 and 101-020-010, Itzen Bulb Farm 16500 and 16810 Ocean View Drive*. Prepared for Smith River Rancheria. January 2007.

Winzler & Kelly

- 2008 *Lucky 7 Casino Expansion and Wastewater Treatment Plant Construction. Tribal Environmental Impact Study*. Prepared for Smith River Rancheria. May 2008.