

RECLAMATION

Managing Water in the West

Fernley Right-of-Way Crossings Environmental Assessment



**U.S. Department of the Interior
Bureau of Reclamation
Lahontan Basin Area Office
705 N. Plaza, Suite 320
Carson City, NV 89701**

October 2008

ENVIRONMENTAL ASSESSMENT
FERNLEY RIGHT-OF-WAY CROSSINGS

Lyon County, Nevada

U.S. Bureau of Reclamation
Lahontan Basin Area Office
Carson City, Nevada

October 2008

**FERNELY RIGHT-OF-WAY CROSSINGS
TABLE OF CONTENTS**

1.0 INTRODUCTION

1.1 Background	1
1.2 Locations of Crossings	1
1.3 Easement Crossing Authorization	3
1.4 Purpose and Need for Action	4
1.5 Public Involvement, Consultation and Coordination	4

2.0 ALTERNATIVES

2.1 Alternative 1 – Proposed Action	4
2.2 Alternative 2 – No Action	7

**3.0 AFFECTED ENVIRONMENT /ENVIRONMENTAL CONSEQUENCES /
MITIGATING MEASURES**

3.1 Site Description / Affected Environment	7
3.2 Environmental Consequences	8
3.3 No Action Alternative	8
3.4 Proposed Action	8
3.4.1 Wildlife	8
3.4.2 Threatened and Endangered Species	8
3.4.3 Water Resources	8
3.4.4 Air Quality	8
3.4.5 Noise	8
3.4.6 Vegetation	8
3.4.7 Visual Resources	9
3.4.8 Land Use /Transportation / Access	9
3.4.9 Historic and Cultural Resources	9
3.4.10 Indian Trust Assets	10
3.4.11 Environmental Justice	10

4.0 OTHER NEPA CONSIDERATIONS

4.1 Indirect Effects	11
4.2 Cumulative Impacts	11
4.3 Irreversible and Irretrievable Commitments	11

5.0 LIST OF PREPARERS 12

FIGURES

Figure 1. Map of proposed crossings	2
Figure 2. Aerial view of proposed TC-4 crossing	5
Figure 3. Aerial view of proposed Stock Lane crossing	6
Figure 4. Aerial view of proposed Mull Lane crossing	7

1.0 INTRODUCTION

1.1 Background

The Bureau of Reclamation (Reclamation) Newlands Project provides water for irrigation and wetlands purposes from the Truckee and Carson Rivers for approximately 57,000 acres in the Lahontan Valley near Fallon and Fernley in western Nevada.

Reclamation has a 60-foot wide easement for the TC4 Lateral and a 200-foot wide easement for the Truckee Canal. Water is diverted from the Truckee Canal into the TC-4 and other lateral canals to irrigate land in the Truckee Division of the Newlands Project. The City of Fernley (City) is requesting to cross the TC-4 Lateral canal in one location and the Truckee Canal easements in two locations. The pipes would cross under the TC-4 Lateral. On the Truckee Canal, one crossing would be under the canal; on the other location the pipes would cross above the canal using an existing utilities bridge.

The City is proposing to construct a groundwater treatment plant to produce water that meets the U.S. Environmental Protection Agency arsenic standard for delivery to City customers. The plant is expected to be completed in July 2009. The City proposes a total of approximately 12.7 miles of pipeline to service the groundwater treatment plant. These crossings of Reclamation's easements would allow the City to extend pipelines that would convey untreated groundwater to the plant and treated water from the plant to City customers.

The City has reviewed an alternative pipeline route alignment option to access the groundwater treatment plant that would not cross Reclamation's easements. However it is almost impossible to avoid crossing the Truckee Canal to bring water and services to people on the south side of the canal. The City's evaluation of the pipeline alignments showed the alignment proposed in this Environmental Assessment (EA) is more cost effective and would require less technical engineering and maintenance.

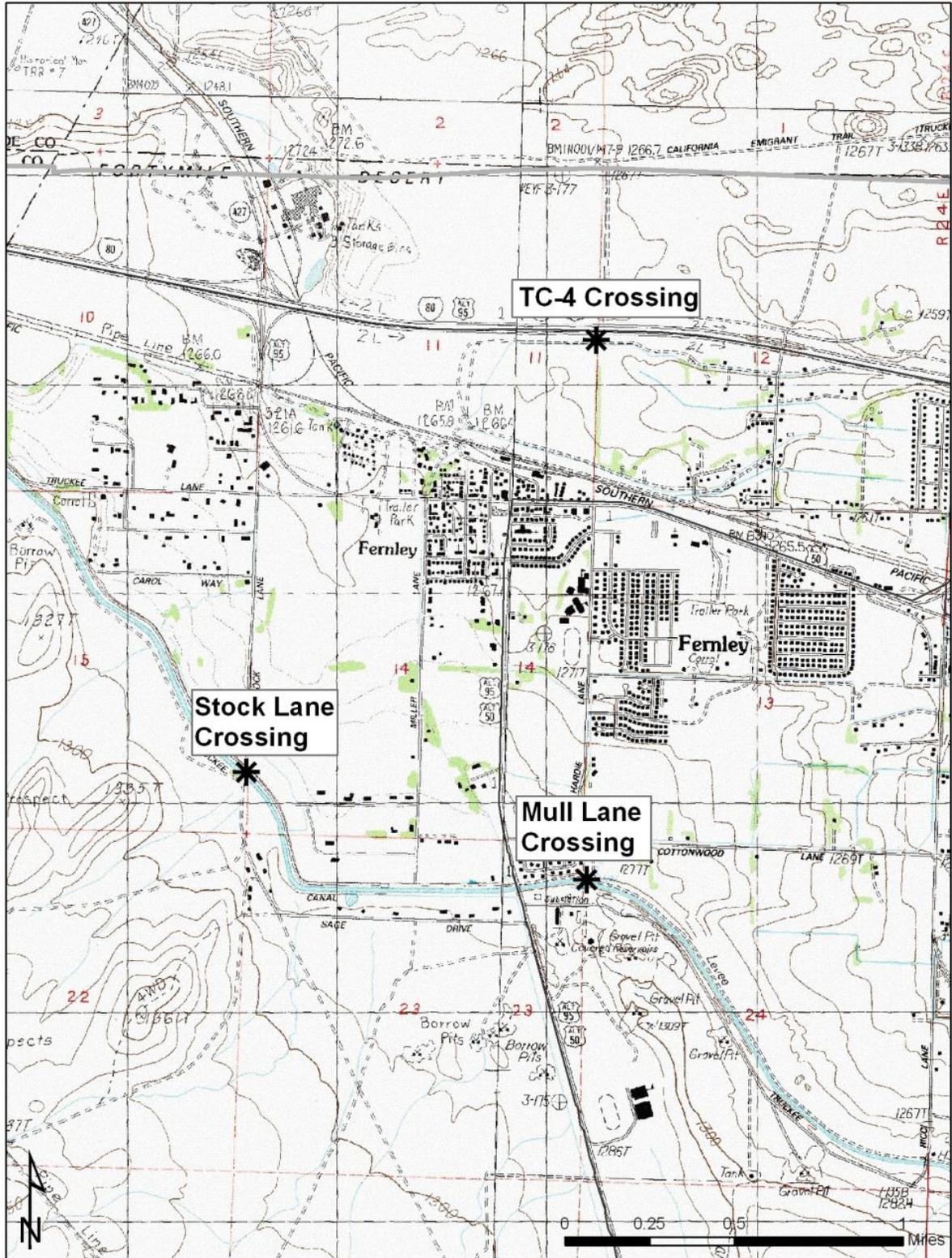
1.2 Location of Truckee Canal and TC-4 Lateral Crossings:

The proposed TC-4 Lateral and crossing is located on the northern edge of Fernley, Nevada in Lyon County. The project is located in T 20N R 24 E section 11, NE ¼ SE ¼ M.D.M. (Fernley East quad).

The proposed Mull Lane and Stock Lane Crossing of the Truckee Canal are on the southern edge of Fernley. The Stock Lane Crossing is located in T 20N R 24E section 15, SE ¼ SE ¼; and section 14 SW ¼ SW ¼ M.D.M. (Fernley West quad). The Mull Lane Crossing is located in T 20 N R 24 E, section 24, NW ¼ NW ¼ M.D.M. (Fernley East quad).

Figure 1 shows the proposed crossing locations.

Figure 1. Locations of Proposed Crossings



1.3 Easement Crossing Authorization

Reclamation Manual Directives and Standards LND 08-01 - Land Use Authorizations discusses Reclamation's direction related to use of a Reclamation easement as follows:

Agreements to Allow Others to Use a Reclamation Easement – Consent

Document. When any party proposes to cross or use a Reclamation easement, a consent document should be prepared by, or be acceptable to, Reclamation and executed by all parties.

A. **Conditions to protect Reclamation Interests.** The consent document should contain a list of conditions and criteria necessary to:

- (1) Protect all structures, facilities, and resources from damage;
- (2) Ensure unrestricted flow and quality of water in the facility or structure;
- (3) Not diminish the ability to operate and maintain the facility, including access;
- (4) Protect and provide for the unrestricted use of any Reclamation easement, be it for roads, telephone/communication lines, flood and flowage easements, canals, pipelines, gaging stations, or any other purpose;
- (5) Prevent an unreasonable burden of liability; and
- (6) Hold Reclamation harmless as stated in 43 Code of Federal Regulations § 429.

B. **Underlying Fee Owner Permission.** The consent document shall contain a requirement that, in the event the applicant is not the underlying fee owner, it shall be incumbent on the applicant to secure permission of the underlying fee owner for approval to cross or use Reclamation's easement.

C. **Cost Recovery.** When Reclamation enters into or issues a consent document based upon a Reclamation easement interest, it is not appropriate to collect a land use fee. It is appropriate for Reclamation to collect an administrative fee consistent with Office of Management and Budget Circular A-25, as revised. When the applicant is the underlying land owner, recovery of administrative costs can be waived.

As stated above for conditions to protect Reclamation's interests, 43 Code of Federal Regulations § 429.9 **Hold Harmless Clause** states:

(a) The following clause shall be a part of every land-use document issued by Reclamation:

The grantee hereby agrees to indemnify and hold harmless the United States, its employees, agents, and assigns from any loss or damage and from any liability on account of personal injury, or death arising out of grantee's activities under this agreement.

1.4 Purpose and Need for Action

The purpose of the proposed action is to facilitate the conveyance of untreated/treated water to and from the City groundwater treatment plant. The water lines will enable the City of Fernley to deliver potable water with arsenic levels below the Federal Standard to its customers. These three locations were selected because they are the most efficient and cost effective pipeline routes.

1.5 Public Involvement, Consultation and Coordination

Advertisements describing the proposed easement crossings/license and requesting scoping comments were placed in the Fernley Leader – Courier. This ad was published on October 8, 2008; no comments were received.

A consultation letter dated September 30, 2008, requesting scoping comments on the proposed crossings was sent to the Pyramid Lake Paiute Tribe (Tribe) pursuant to federal legislation and executive orders concerning Native American government-to-government consultation, including NEPA and Indian Trust Assets. Reclamation did not receive any comments from the Tribe.

Reclamation has coordinated with the City on the technical aspects of the project and Reclamation requirements for the crossing. Construction will be accordance with Reclamation’s Engineering and Operations and Maintenance (O&M) Guidelines for Crossings. The City also coordinated on engineering aspects of the crossings with the Truckee-Carson Irrigation District, Reclamation’s Newlands Project Operation and Maintenance contractor.

2.0 ALTERNATIVES

2.1 Alternative 1 - Proposed Action:

Reclamation would issue a concurrence document allowing the City to cross Reclamation facilities with pipelines in three locations. On the two crossings that pass under canals (Stock Lane and the TC-4), there will be no surface disturbance on Reclamation land. These involve boring underneath the canals, and the bore pits will be outside the easements. The bore pits would be approximately 3’ in diameter.

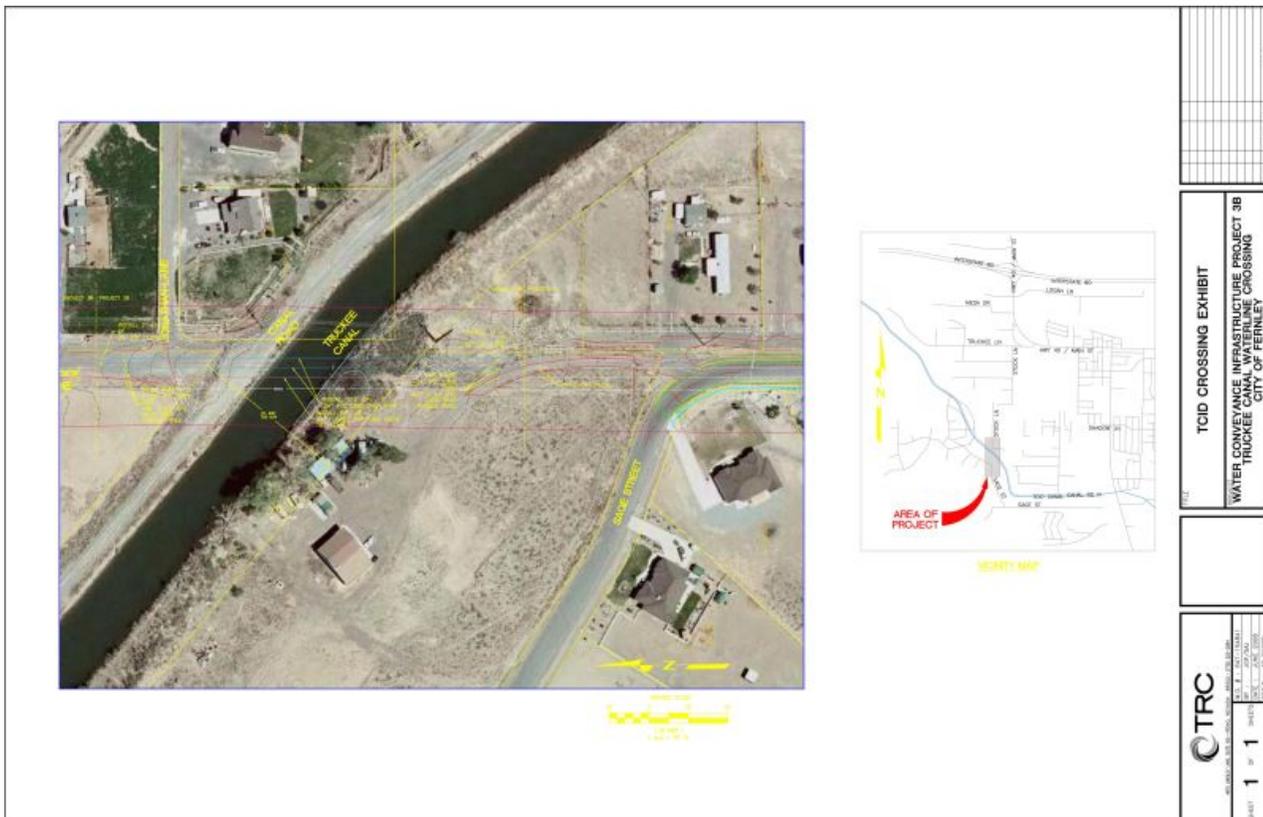
The TC-4 Crossing would involve one buried pipe carrying raw groundwater (Figure 2). The pipe would be 18” in diameter with a 24” casting.

The Stock Lane Crossing would cross under the Truckee Canal with three pipes, two carrying treated water and one carrying raw groundwater (Figure 3). These would be either 24” or 30” pipes.

Figure 2. Aerial View of TC-4 Lateral



Figure 3. Aerial view of Stock Lane Crossing

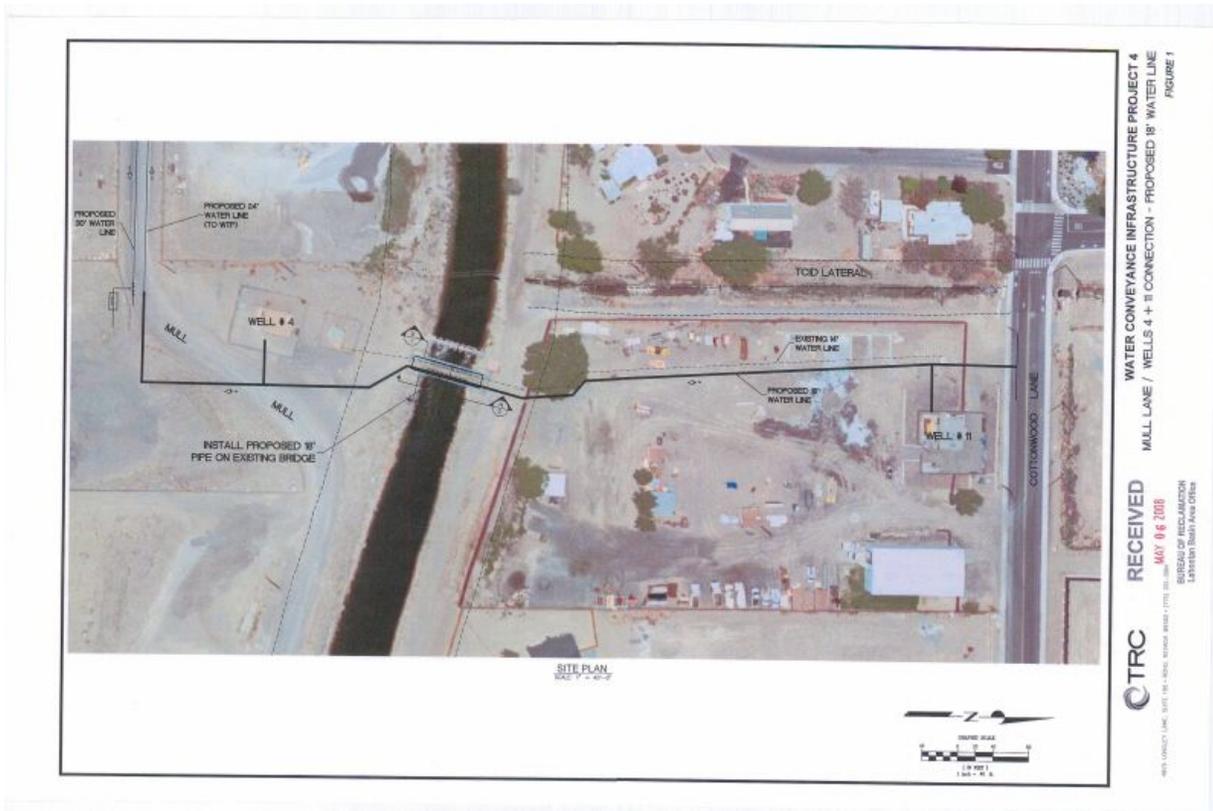


At the Mull Lane two pipes will cross over the Truckee Canal; one will carry treated water and the other will carry raw groundwater (Figure 4). The pipelines will surface within Reclamation’s easement at right angles from the horizontal buried portions entering from the road. On the opposite side of the canal the pipes would turn at a right angle and once again go below grade to connect with buried portions on the other side of the canal. Above this right angle on each side of the canal, each pipe would be surrounded by a concrete abutment, approximately 8 foot square and approximately 2-3 feet tall above the surface (a total of four abutments). Approximately 20 square feet will be disturbed on each side while construction is occurring.

It is estimated that construction would begin in winter 2008 and take up to four months to complete all three crossings. No construction will occur during the irrigation season, so there will be no conflicts with irrigation deliveries.

The Newlands Project easement would continue to be held in the name of the United States. The City and their contractors would be responsible for construction, operation and maintenance of their operations. The City would be responsible for obtaining any necessary State and local permits. Reclamation and the Truckee-Carson Irrigation District would maintain the right of access to operate and maintain the Truckee Canal and the TC-4 Lateral.

Figure 6. Aerial view of Mull Lane Crossing



2.2 Alternative 2 - No Action:

Reclamation would not provide concurrence to allow the City to cross Reclamation's TC1 easement in three locations to bury pipes. The City would find alternate pipeline routes that do not cross the Reclamation easements.

3.0 AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES

Environmental resources potentially impacted by the alternatives and other issues of concern are described in this section. The impacts include identifying any direct, indirect, or cumulative effects.

3.1 Site Description/Affected Environment:

The Truckee Canal and TC-4 Lateral are open earthen ditches. While the TC-4 has intermittent water deliveries, the Truckee Canal usually has water yearlong. Both canals have areas of bare soil and other areas with a variety of native and weed vegetative species growing in and adjacent to the canal. All crossings are located in relatively level areas.

The Stock Lane and Mull Lane crossings are located in semi-residential areas. The TC-4 crossing is located on the outskirts of the city in a light industrial area.

3.2 Environmental Consequences:

The following resources are not discussed in this EA: economics, hydrology, climate, soils, floodplains and wetlands, fisheries, geology, mineral resources, recreation, topography, or hazardous waste. Impacts to these resources were considered but not analyzed in detail because they are not affected by the project.

3.3 No Action Alternative:

There would be no effects and no change from current conditions from the No Action Alternative to any of the resources analyzed in this EA.

3.4 Proposed Action Alternative:

3.4.1 Wildlife

During the burying of the pipes and construction of the abutments local wildlife may be displaced by the noise and disturbance. These potential effects to wildlife would be minimal and temporary.

3.4.2 Threatened and Endangered Species

There are no threatened or endangered species within the easement parcels or within the proximity of the crossings.

3.4.3 Water Resources

There would be no impacts to groundwater from the pipeline and pipeline construction activities of the Proposed Action Alternative. Sedimentation may increase slightly to the surface irrigation water from loosened soil during construction of the abutments at Mull Lane; however the amount would be temporary and minimal. Construction would occur in during winter months to avoid any conflicts with irrigation deliveries.

3.4.4 Air Quality

Current air quality in the project areas is good. Under the Proposed Action, there may be temporary small increases in fugitive dust emissions from construction activities. These dust emissions will be short-term and occur only during construction hours.

3.4.5 Noise

The current noise levels in the project areas are very low. Under the Proposed Action Alternative noise levels will increase temporarily during the period of construction due to the use of heavy equipment, but only during construction hours.

3.4.6 Vegetation

The vegetation in the crossing areas currently consists primarily of low priority weed species and some native endemic species (sagebrush, narrow leaf willow and cottonwood). The Proposed Action will likely completely remove the vegetation within the 20-foot by 20-foot footprint on each side of the Truckee Canal at the Mull Lane crossing. This area is previously disturbed due to prior construction activities. This

ground disturbance will likely encourage a heavier infestation of weeds, including Russian thistle and cheat grass.

3.4.7 Visual Resources

Under the Proposed Action alternative there will be heavy equipment activity visible at the project sites during construction. The visual effect from construction will be temporary. The only visual effects from the canal crossing at Mull Lane will be additional pipes suspended on the bottom of the existing bridge and four concrete abutments approximately two to three feet tall.

3.4.8 Land Use / Transportation / Access

Under the Proposed Action the construction of the pipeline trench and borings will cause a temporary increase in traffic during construction hours. Temporary road closures may occur during construction periods, but there will be no permanent change in access.

3.2.2.9 Historic and Cultural Resources

Affected Environment

Cultural resources is a term used to describe both ‘archaeological sites’ depicting evidence of past human use of the landscape and the ‘built environment’ which is represented in structures such as dams, roadways, and buildings. The National Historic Preservation Act (NHPA) of 1966 is the primary Federal legislation which 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 (National Register). Those resources that are on or eligible for inclusion in the National Register are referred to as historic properties.

The Section 106 process is outlined in the Federal regulations at 36 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 has the potential 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.

The Fernley area is known to have abundant cultural resources. Among these include evidence of prehistoric use of the area as well as historic use. Relevant to this EA are the two historic cultural resources of the Truckee Canal and the TC-4 lateral. Both the Truckee Canal and the TC-4 lateral have been determined eligible for inclusion in the National Register of Historic Places (National Register) pursuant to the draft National Register Nomination for the Newlands Project (Hardesty and Buhr 2001) and in consultation with the Nevada SHPO.

Environmental Consequences

No Action Alternative:

Under the no action alternative Reclamation would not provide access to the City of Fernley to cross Reclamation's easement. Under this alternative, Reclamation would not initiate an undertaking pursuant to Section 301 of the NHPA and therefore not be required to implement Section 106 of the NHPA. There would be no cultural resources impacted as a result of the no action alternative.

Proposed Action Alternative:

Under the proposed action alternative, Reclamation would permit the crossing of the Truckee Canal in two locations and the TC-4 lateral. One crossing on the Truckee Canal and the crossing at TC-4 lateral will implement jack and bore trenching techniques. The jack and bore will enter the ground outside of Reclamation's easement, bore underneath each conveyance feature, and exit outside of Reclamation's easement. This type of activity is considered to have no potential to effect historic properties. The other crossing on Truckee Canal will utilize an existing utilities bridge that crosses over the Truckee Canal. There will be no modification to the Truckee Canal as a result of adding this additional pipe to the existing utility crossing. As a result, this crossing has no potential to affect historic properties. Because the action will result in no potential to affect historic properties, there will be no impact to cultural resources as a result of implementing this alternative.

Reference:

Hardesty, D.L., and L. Burg

2001 *The Newlands Project, Nevada: Evaluating National Register Eligibility*. Unpublished National Register nomination prepared for the Mid-Pacific Region, Bureau of Reclamation.

3.2.2.10 Indian Trust Assets

Indian Trust Resources are legal interests in property or natural resources held in trust by the United States for Indian Tribes or individuals. The Secretary of the Interior is the trustee for the United States on behalf of Indian Tribes. Examples of trust resources are lands, minerals, hunting and fishing rights, and water rights. There is one Tribe in the vicinity of the proposed crossings, the Pyramid Lake Paiute Tribe. The Pyramid Lake Indian Reservation is approximately 01.75 miles from the TC-4 crossing, 2.5 miles from the Mull Lane Crossing, and 1.5 miles from the Stock Lane crossing. There are no trust resources within the affected area of the Truckee Canal or TC-4 Lateral easement crossings.

3.2.2.11 Environmental Justice

Executive Order No. 12898, Environmental Justice, is "intended to promote nondiscrimination in Federal programs substantially affecting human health and the environment, and to provide minority and low-income communities' access to public information on, and an opportunity for participation in, matters relating to human health and the environment." It requires each federal agency to achieve environmental justice as part of its mission by identifying and addressing, as appropriate, disproportionately high

and adverse human health or environmental effects, including social and economic effects, of its programs, policies, and activities on minority and low-income populations.

EPA guidelines for evaluating potential adverse environmental effects of projects require specific identification of minority populations when a minority population either exceeds 50 percent of the population of the affected area or represents a meaningfully greater increment of the affected population than of the population of some other appropriate geographic unit.

The Proposed Action Alternative would not disproportionately affect minority or low-income populations within the community.

4.0 OTHER NEPA CONSIDERATIONS

4.1 Indirect Effects

Because the direct effects are so minimal of Reclamation's proposed action to issue a concurrence document allowing the City to cross Reclamation facilities with pipelines, there are no known indirect effects.

4.2 Cumulative Effects

The proposed groundwater treatment plant is a phased project with substantial completion expected in July 2009. Reclamation asked the City of Fernley to provide a complete list of all expected proposed crossings in relation to this project. These three crossings were all that were submitted. No additional future projects related to this groundwater treatment plant are expected.

4.3 Irreversible and Irretrievable Commitments

Irreversible commitments are decisions affecting renewable resources such as soils, wetlands and waterfowl habitat. Such decisions are considered irreversible because their implementation would affect a resource that has deteriorated to the point that renewal can occur only over a long period of time or at great expense, or because they would cause the resource to be destroyed or removed.

Irretrievable commitment of natural resources means loss of production or use of resources as a result of a decision. It represents opportunities forgone for the period of time that a resource cannot be used. Irretrievable refers to the permanent loss of a resource including production, harvest, or use of natural resources. For example, production or loss of agricultural lands can be irretrievable, while the action itself may not be irreversible.

The crossings would not result in any operational changes or other physical impacts that would irreversibly or irretrievably commit renewable resources from this federal action.

5.0 LIST OF PREPARERS

Andrea Minor – Natural Resource Specialist, Bureau of Reclamation

William BC Deshler – Realty Specialist, Bureau of Reclamation

Adam Nickels – Archeologist, Bureau of Reclamation