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RECLAMATION

## Record of Decision

# Truckee Canal Extraordinary Maintenance

Newlands Project, Nevada  
Interior Region 10 · California-Great Basin



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# Record of Decision

## Truckee Canal Extraordinary Maintenance

Recommended by:

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# Record of Decision

## Background

The United States (US) Department of the Interior (DOI), Bureau of Reclamation (Reclamation) has prepared a Draft and Final environmental impact statement (EIS) to analyze the environmental impacts of proposed extraordinary maintenance (XM) to address safety needs along the Truckee Canal (Canal), a part of the Newlands Project, in western Nevada. The Canal originates at the Derby Diversion Dam on the Truckee River, approximately 20 miles east of Reno, Nevada, and ends at Lahontan Reservoir.

On January 5, 2008, the Canal's north embankment, approximately 12 miles downstream of the Derby Diversion Dam, breached after a storm. This resulted in an uncontrolled water release that caused flooding and damage to approximately 590 properties in the City of Fernley, Nevada. The Truckee-Carson Irrigation District (TCID), which operates and maintains the Canal, repaired the breach in February 2008, and the Canal reopened in March 2008. Following the January 2008 Canal breach, Reclamation completed several studies that identified areas requiring repair and maintenance to address safety concerns. Until long-term repairs are made, the Canal is required to operate at a lower stage (height of water) to comply with short-term risk reduction measures.

## Purpose of and Need for Action

In accordance with the 1996 Operations and Maintenance (O&M) contract, Reclamation needs to evaluate the TCID's request to improve the structural integrity to reduce the risk of a Canal breach for public safety. The purpose is to enable the TCID to complete necessary repairs to restore safe long-term operation of the Canal, so Newlands Project water rights can be served under the existing Newlands Project Operating Criteria and Procedures (OCAP; 43 Code of Federal Regulations [CFR] 418.20) and in compliance with decrees, contracts, and other applicable laws, as funding becomes available.

## Proposed Federal Action

The proposed federal action is to determine necessary repairs for safe operation of the Canal, as follows:

- Provide engineering designs, specifications, and plans
- Provide construction oversight
- Work with the TCID to identify and develop funding strategies, including, but not limited to, repayment contracts pursuant to Public Law 111-11, Omnibus Public Land Management Act of 2009

- Issue the TCID a notice to proceed with necessary repairs to the Canal under the contract

## Reclamation's Decision

Reclamation has decided to implement Alternative 5 (Lining the Canal—Full Prism—Geomembrane/Concrete) as described in the Truckee Canal XM Project (Project) Final EIS. Alternative 5 has been selected because it will address the safety risks and meet the purpose and need, while providing the highest risk reduction of all the alternatives. Alternative 5 will address the risks using embankment, structural, and hydrologic fixes. These include lining the full prism of the Canal for a total of 12.7 miles with a geomembrane and concrete liner, replacing four check structures, modifying the Bango check structure, replacing Hazen Gage with a flume, and armoring Pour Point 8 by lining the full prism with a geomembrane and concrete liner.

Reclamation does not currently have the authority to fund implementation of the Preferred Alternative on a non-reimbursable basis, pursuant to Public Law 111-11, Omnibus Public Land Management Act of 2009, or otherwise under the federal Reclamation laws. Funding possibilities are described in the Proposed Federal Action section of this Record of Decision. This Record of Decision does not include, and should not be interpreted as including, any commitment for federal funding of the Preferred Alternative.

## Alternatives Considered

The alternatives evaluated in the Final EIS include the No Action Alternative and five action alternatives (Alternatives 1, 2, 3, 4, and 5).

### No Action Alternative

Under the No Action Alternative, the Canal would continue to be operated under current conditions, contracts, and laws. The TCID would not implement any of the risk mitigation measures identified in the risk analysis; however, it would perform routine maintenance to minimize short-term risks and maintain the Canal stage in accordance with the O&M contract and Reclamation requirements. Routine maintenance would not comprehensively address the risk factors, thereby potentially resulting in long-term deterioration of the Canal. Reclamation would conduct a risk analysis every 5 years and could implement other actions, such as stage restrictions, to meet safety requirements. Any substantial changes to the Canal would be subject to additional environmental review, including National Environmental Policy Act (NEPA) analysis.

### Action Alternatives

Reclamation developed a range of action alternatives to address the purpose and need by evaluating the risk reduction recommendations and alternatives identified in the Corrective Action Study. Screening criteria were also developed with the Project cooperating agencies to evaluate each Project element. Project elements that satisfied the criteria were combined into complete alternatives. The action alternatives are summarized below in **Table 1**, Action Alternatives Analyzed in the EIS. Each of the action alternatives addresses three main elements: 1) Embankment; 2) Structures; and 3)

Hydrologic. Embankment repairs include a geomembrane liner with concrete cover or geomembrane liner with soil cover to prevent embankment failure. Structure repairs include replacing check structures to prevent ice jams and backflow in the event of a breach and replacing the Hazen Gage that currently restricts flows. Hydrologic actions include armoring Pour Point 8, constructing detention basins, and/or extended Canal lining.

Alternative 5 has been selected as the Preferred Alternative. Alternative 5 provides the highest risk reduction compared to all other alternatives, and it reduces risk without introducing new risks. It is also among the least cost alternatives to maintain. Minor differences in potential environmental impacts exist for each of the action alternatives as described in the Final EIS.

## **Environmentally Preferable Alternative**

Section 1505.2(b)<sup>1</sup> of the Council on Environmental Quality (CEQ) regulations requires the NEPA lead agency to identify the environmentally preferable alternative in a Record of Decision. The environmentally preferable alternative is the alternative that causes the least damage to the biological and physical environment and best protects, preserves, and enhances historical, cultural, and natural resources according to CEQ's 40 Most Asked Questions Number 6(a). Although CEQ regulations require the identification of the environmentally preferred alternative, it is not required that this alternative be adopted.

The No Action alternative is the environmentally preferred alternative because there would not be construction-related disturbances; however, this alternative would not address all the risk factors and would not protect resources or the community from flooding so it was not selected as the Preferred Alternative. Alternative 5 has been identified as the preferable alternative because it would cause the least damage to the physical environment of all the action alternatives. The total amount of ground disturbance would be less than the other action alternatives because the detention ponds would not be constructed (alternatives 1 and 4), less of the Canal would be lined requiring less construction-related disturbances (alternatives 2 and 3), and the concrete cover would not require as much maintenance and future ground disturbance as the soil cover (alternative 2). In addition, a stretch along the Fernley Reach would not be lined, thus allowing for some continued artificial groundwater recharge in that area.

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<sup>1</sup> The environmental impact statement for which this Record of Decision is issued was begun before September 14, 2020. Therefore, all references to CEQ regulations are those regulations at 40 CFR parts 1500-1508 as of July 1, 1986.

Table 1. Action Alternatives Analyzed in the EIS

Alternative	Embankment <sup>1</sup>		Structures		Hydrologic			
	Lining Canal Geomembrane/ Soil	Lining Canal Geomembrane/ Concrete	Check Structures	Hazen Gage	Pour Point 8	Detention Ponds	Lining Canal Geomembrane/ Soil	Lining Canal Geomembrane/ Concrete
Alternative 1	N/A	Line full prism: – 5.99 miles	Replace four check structures (Fernley, Anderson, Allendale, and Mason)	Remove and replace Hazen Gage with a long-throated flume	Armor Pour Point 8: – full prism – geomembrane/ concrete at 3 inflow points (2,700 feet [ft]) – geomembrane/ soil (3,000 ft)	Construct TC 11 detention pond (322 acre-feet [AF]) and Mason detention pond (101 AF)	N/A	Line full prism: – 5.71 miles
Alternative 2	Line full prism: – 5.99 miles	N/A	Replace four check structures (Fernley, Anderson, Allendale, and Mason)	Remove and replace Hazen Gage with a long-throated flume	Armor Pour Point 8: – full prism – geomembrane/ concrete at 3 inflow points (2,700 ft) – geomembrane/ soil (3,000 ft)	N/A	Line full prism: – 8.01 miles	N/A
Alternative 3	N/A	Line full prism: – 27 miles	Replace five check structures (Fernley, Anderson, Allendale, Mason, and Bango)	Remove and replace Hazen Gage with a long-throated flume	N/A	N/A	N/A	N/A



Alternative	Embankment <sup>1</sup>		Structures		Hydrologic			
	Lining Canal Geomembrane/ Soil	Lining Canal Geomembrane/ Concrete	Check Structures	Hazen Gage	Pour Point 8	Detention Ponds	Lining Canal Geomembrane/ Soil	Lining Canal Geomembrane/ Concrete
Alternative 4	Line full prism: – 5.5 miles from near the Fernley area to Pour Point 13	Line full prism: – 1,600 ft – half concrete (1,000 ft)	Replace four check structures (Fernley, Anderson, Allendale, and Mason)	Remove and replace Hazen Gage with a long-throated flume	Armor Pour Point 8: – full prism – geomembrane/ concrete at 3 inflow points (2,700 ft) – geomembrane/s oil (3,000 ft)	Construct TC 11 detention pond (322 AF), Mason detention pond (180 AF), and Downstream detention pond (17 AF)	N/A	N/A
Alternative 5	N/A	Line full prism: – 5.99 miles	Replace four check structures (Fernley, Anderson, Allendale, and Mason), and modify radial gates at Bango check structure	Remove and replace Hazen Gage with a long-throated flume	Armor Pour Point 8: – full prism – geomembrane/ concrete (5,800 ft)	N/A	N/A	Line full prism: – 6.69 miles

Source: Reclamation 2017a, 2019

<sup>1</sup>Lining proposed under the embankment element would address the hydrologic risk as well as embankment risk.

## Basis for Decision

Reclamation's decision is based on how the alternatives meet the Project's purpose and need, the magnitude of environmental effects, and the ability to reduce those effects. The No Action Alternative would not address the risk factors and it does not meet the purpose and need for the Project; therefore, an action alternative was selected. The action alternatives all met the purpose and need, with minor differences in potential environmental impacts of each alternative, as described in Chapter 3 of the EIS.

Alternative 5 provides the highest risk reduction compared with all other alternatives, and it reduces risk without introducing new risks. It is also among the least cost alternatives to maintain. All practicable means to avoid, minimize, and compensate for potential adverse environmental effects were incorporated into the action alternatives, including Alternative 5. These environmental measures developed for the Project are listed in **Table 2**. These measures would reduce potential effects on soils, geology, water quality, cultural resources, vegetation, wildlife, special status species, and public health and safety. Reclamation will ensure the EPMs are incorporated into any construction contracts awarded by TCID prior to Reclamation issuing the notice to proceed. Reclamation will also provide construction oversight to ensure these measures are being implemented. The EPMs would not be implemented under the No Action Alternative.

**Table 2. Environmental Protection Measures**

Number	Description
1	Structure foundations or earthwork operations next to or encroaching on natural drainage channels would be dewatered to prevent muddy water and eroded materials from entering the natural drainage channels.
2	Erosion control measures would be implemented to prevent soil loss and sedimentation transport from entering natural drainage channels.
3	Runoff from the construction and O&M sites would be controlled and would meet applicable State of Nevada stormwater requirements.
4	All contaminated discharge water created by construction and O&M activities, such as concrete washout, pumping for work area isolation, vehicle wash water, and drilling fluids, would be contained and disposed of in accordance with applicable federal, state, and local regulations.
5	All equipment would be stored, fueled, and maintained in vehicle staging areas 300 feet or the maximum feasible distance from any aquatic habitat (grassland, seasonal wetland, seep, spring, pond, lake, river, stream, or marsh). Vehicles and construction equipment would be inspected daily for fluid leaks before being driven off the staging areas.

Number	Description
6	Excavation or other construction materials would not be stockpiled or deposited near or on stream banks, lake shorelines, or other watercourse perimeters.
7	If wet areas cannot be avoided, Reclamation would use vehicles, ground mats, and equipment that minimize ground impacts.
8	Construction vehicle movement outside of the easement would be restricted, to the extent feasible, to approved access or public roads.
9	Before construction, Reclamation would instruct all supervisory construction personnel on protecting traditional cultural properties (TCPs) and historic, cultural, and paleontological resources in the Project Area.
10	Construction personnel would avoid all culturally sensitive areas. These areas would be temporarily fenced where activities are planned to take place near cultural resources.
11	At completion of work, all work areas except access roads would be recontoured to provide for proper drainage and to prevent erosion.
12	In areas where ground disturbance is substantial or where recontouring is required, vegetation would be restored. The method of restoration typically would consist of seeding or revegetating with native plants (if required), installing cross drains for erosion control, and placing water bars in the road or centerline travel route. Seed used for revegetation would be certified as weed-free.
13	A qualified biologist would conduct surveys in sensitive habitats before clearing vegetation. The purpose of this would be to identify biologically sensitive issues, such as sensitive plant species.
14	Pre-Project clearance surveys would be conducted for sensitive animal species with the potential to occur in or close to the Project Area and could be affected by the Project. If sensitive animal species are identified, impacts would be avoided by flagging or fencing and by applying appropriate avoidance buffers.

Number	Description
15	Surface-disturbing activities would typically not occur during the migratory bird or raptor nesting season, generally from March 1 to August 31. If surface-disturbing activities must occur during this period, qualified biologists would conduct preconstruction avian surveys in appropriate habitats not less than 3 days and not more than 7 days before surface-disturbing activities begin. The specific area to be surveyed would be based on the scope of the activities. If ground-disturbing activities do not take place within 7 days of surveys, the work areas would be resurveyed. If nesting migratory birds or raptors are detected during surveys, appropriate buffers would be applied. Buffers would remain in effect until the qualified biologist determines the young have fledged or the nest has failed.
16	Avian species may nest in idle equipment or construction materials. If construction equipment is idle for more than 7 days during the breeding season, preconstruction surveys would be conducted in such areas before construction resumes.
17	Any pits that present a wildlife trapping hazard would be fitted or constructed with an escape ramp. Open, uncapped hollow pipes or other openings would be capped, screened, or otherwise covered to prevent unintentional wildlife entrapment.
18	Hazardous materials would not be drained onto the ground or into streams or drainage areas. All construction and maintenance waste would be removed daily. This would include trash and litter, garbage, other solid waste, petroleum products, and other regulated materials. The materials would be sent to a disposal facility authorized to accept such materials.
19	If nighttime construction is necessary, minimal-impact measures for lighting would be implemented, such as using the minimum amount necessary to complete the task, narrow-spectrum lighting, and minimal ultraviolet-emitting lights.
20	Before potential bat day roosts are removed, a qualified biologist would ensure that roosting bats would not be affected.
21	Reclamation would use measures to reduce fugitive dust generation, such as limiting vehicle speeds to reduce visible dust emissions and posting speed limit signs at construction site entrances.
22	Sandbags or equivalent effective measures would be used to prevent runoff to roadways in construction areas next to paved roadways.
23	Disturbed soils would be stabilized after construction, using a nontoxic soil stabilizer, soil weighting agent, or other approved soil stabilizing method.

<b>Number</b>	<b>Description</b>
24	Soil storage piles and disturbed areas would be covered or treated with appropriate dust suppressants.
25	Vehicles used to transport solid bulk material on public roadways and that could cause visible emissions would be covered.
26	Wind erosion control techniques, such as windbreaks, water, silt fences, chemical dust suppressants, and vegetation, would be used where soils are disturbed in construction and access areas and on material stockpile areas.
27	Repairs and/or construction of new embankments and structures would meet Reclamation seismic design standards.
28	All soil excavated for structure foundations would be backfilled and tamped around the foundations to provide positive drainage around the structure foundations. Excess soil would be removed from the site and disposed of appropriately.
29	Vehicles will be inspected and cleaned before being driven onto the Project site to avoid spread of noxious weeds or invasive plant species.
30	Safety features, such as suspended cables (drop lines), rescue ladders, and rails, at certain intervals, are being addressed in the final design. Signage will also continue to be installed in the Project Area.

In addition to the EPMs developed for the Project, the Final EIS discusses actions proposed by the City of Fernley (Section 3.1.2 and Appendix G), which are closely tied to the issues and resources identified in the EIS and which may reduce potential impacts from the action alternatives.

As described in the following section, the action alternatives have the potential to result in effects on several resources, including water supply, groundwater, vegetation and wildlife, and cultural and historic resources. Compliance with the EPMs listed above, environmental laws, and regulations would ensure the action alternatives would not result in direct impacts on the majority of resources evaluated. The action alternatives would reduce artificial groundwater recharge, thereby resulting in an adverse indirect effect on private well owners along the Canal in the lined reaches and the City of Fernley. Alternative 5 leaves a section of Canal unlined in the Fernley reach, allowing some artificial groundwater recharge to continue.

## **Environmental Issues Evaluated**

Key issues raised during the public scoping process were analyzed in the EIS. The alternatives were evaluated to address these issues and potential impacts to the range of environmental and socioeconomic resources relevant to NEPA. Through execution of this Record of Decision, Reclamation's decision maker certifies that the agency has considered all the alternatives, information, analyses, and objections submitted by State, tribal, and local governments and public commenters for consideration in developing the Final EIS.

The action alternatives have the potential to result in impacts on several resources, as summarized in the EIS and in **Table 3**, below.

**Table 3. Summary of Environmental Consequences from Action Alternatives**

Resource	Key Findings
Water resources	While minor differences in water resource impacts exist among each action alternative, compliance with applicable EPMs, environmental laws, and regulations would ensure the action alternatives would not result in direct impacts on surface water or water quality. The action alternatives would reduce artificial groundwater recharge, thereby resulting in an adverse indirect effect. Dr. Greg Pohll's 2012 modeling indicated that Canal seepage in the Fernley area ranged from 14,000 to 22,000 acre-feet per year (AFY). A review of current supply (less Canal seepage) versus demand indicates possible shortages of groundwater if groundwater is the only water supply. Cumulative activities summarized in Section 3.1.2 of the EIS could address potential groundwater shortages.
Cultural and historic resources	Results from the cultural resources analysis indicate that replacement and modifications of features and historic characteristics of the Canal, a historic property, may result in an adverse effect on the Canal and would have an adverse impact on cultural resources. Section 106 consultation, the implementation of the programmatic agreement, and compliance with EPMs would lessen the impacts on cultural resources.
Indian trust assets	The implementation of any of the action alternatives would not adversely affect Indian trust assets (ITAs).
Vegetation	While minor differences in vegetation impacts exist among each action alternative, based on compliance with applicable EPMs, environmental laws, and regulations, the action alternatives would not result in significant direct, indirect, or cumulative impacts on vegetation.
Wildlife	While minor differences in wildlife impacts exist among each action alternative, based on compliance with applicable EPMs, environmental laws, and regulations, the action alternatives would not result in significant direct, indirect, or cumulative impacts on wildlife.

Resource	Key Findings
Aquatic resources	While minor differences in aquatic resources impacts exist among each action alternative, based on compliance with EPMs, applicable environmental laws, and regulations, the action alternatives would not result in significant direct, indirect, or cumulative impacts on aquatic resources.
Listed species	While minor differences in the potential for impacts on listed species exist among each action alternative, based on compliance with EPMs, applicable environmental laws, and regulations, the action alternatives would not result in significant direct, indirect, or cumulative impacts on listed species. There would be no impacts on western yellow-billed cuckoo proposed critical habitat under any alternative.
Air quality	Impacts on air quality would be localized and short term under all action alternatives. Because EPMs would reduce fugitive dust emissions generated by soil-disturbing activities during construction, the action alternatives would not result in significant direct, indirect, or cumulative impacts on air quality.
Geology and soils	Impacts on geology and soils would be localized and short term under all action alternatives. Because EPMs would reduce impacts on geology and soils during construction, and the Project design would meet seismic standards, the action alternatives would not result in significant direct, indirect, or cumulative impacts on geology.
Health and safety	Impacts on health and safety are the focus of the action alternatives. The repair activities are needed to address risks associated with flooding. In addition, EPMs would be implemented to minimize other health or safety impacts, including final construction designs with safety features should an individual fall into the Canal. The action alternatives would not result in significant direct, indirect, or cumulative impacts.

Resource	Key Findings
Socioeconomic resources	All action alternatives would temporarily increase construction employment and direct and indirect economic contributions; however, based on the Project Area construction workforce and economy, impacts would be minimal. All action alternatives include lining that would reduce the risk of flooding, thereby reducing the socioeconomic impacts on adjacent property owners and the local community. These lined areas would eliminate Canal seepage that results in a reduction in artificial groundwater recharge. Potential indirect economic impacts on groundwater users may be reduced through cumulative actions proposed to address water supply issues.
Environmental justice	No disproportionate adverse impacts are anticipated on low-income or minority populations under any alternative. Under all action alternatives, construction could result in short-term, location-specific impacts on area populations from increased dust; however, low-income or minority populations would not be disproportionately affected. Under all action alternatives, the proposed Canal lining and other measures would reduce the potential for flooding but would increase the impacts on groundwater users in all populations.

## Public Involvement

Reclamation requested federal, state, and local agencies, Native American tribes, and the TCID to participate as cooperating agencies in the environmental analysis and preparation of the Draft and Final EIS. Cooperating agencies for the Project are the TCID, the Bureau of Indian Affairs, Churchill County, the City of Fallon, the City of Fernley, the Fallon Paiute Shoshone Tribe, the Pyramid Lake Paiute Tribe, and the US Fish and Wildlife Service. Reclamation held eight joint cooperating agency meetings between 2016 and 2017 in Fernley, Nevada. All cooperating agencies were represented at these meetings. Reclamation also met with each cooperating agency separately in the fall of 2016 and 2017, and the summer of 2018. The one-on-one meetings discussed the Project status and presented the alternatives under consideration for analysis. Meeting notes were taken to document issues and concerns identified by each cooperating agency.

Reclamation published the notice of intent to prepare the Project EIS in the Federal Register in October 2015. The Truckee Canal XM EIS public scoping period was from October 2015 to November 2015. Outcomes of the scoping process are summarized in a scoping report published in May 2016. The Project website is <http://www.usbr.gov/mp/lbao/programs/truckee-canal-eis/>. The website provides access to background material and Project Area maps.



Consistent with Executive Order 13175, Reclamation's government-to-government consultation began in October 2015, with Reclamation sending requests for consultation letters to all area tribes. Government-to-government consultation continued throughout the EIS development process.

The Draft EIS was made available for public review on March 6, 2020, with a comment period through April 20, 2020. A Project overview with all public meeting materials, figures, and comment forms was made available online starting March 25, 2020. Interested parties submitted comments via the website, email, and mail. All comments were reviewed and considered for the Public Comment and Response Report in Appendix H of the Final EIS.

## **Endangered Species Act**

The US Fish and Wildlife Service issued a Biological Opinion (November 6, 1997; File No. 1-5-86-F-81R.AMD) on the 1997 OCAP for the endangered cui-ui and threatened Lahontan Cutthroat Trout in the Truckee River Basin, in accordance with Section 7 of the Endangered Species Act (16 United States Code [USC] 1531 et seq.). That document concluded that implementing the 1997 OCAP would not jeopardize threatened and endangered species in the action area (the lower Truckee River). Reclamation is also engaged in a formal re-consultation with the US Fish and Wildlife Service on the 1997 OCAP. Reclamation prepared a Biological Assessment to evaluate the potential effects of the Truckee Canal XM Project on species listed under the Endangered Species Act. Reclamation determined the Project may affect, but is not likely to adversely affect, listed species beyond that consulted on in the 1997 Biological Opinion on the Newlands Project OCAP. Reclamation will informally consult with the US Fish and Wildlife Service.

As outlined in the Final EIS, no adverse impacts on special status species are anticipated from activities associated with Alternative 5. No impacts on foraging cuckoos are anticipated because the nearest potential foraging habitat in the Truckee River is over 0.5 miles from the nearest work location. The nearest proposed critical habitat unit (Unit NV-4) is over 8 miles from the Canal at its nearest point. As a result, there would be no disturbance of proposed critical habitat. No impacts on cui-ui or Lahontan Cutthroat Trout are anticipated because construction activities are over 0.5 miles from the nearest habitat in the Truckee River. Also, the contractor would be required to implement EPMS 1 through 8, 11, 18, 22, and 23 and adequate stormwater pollution prevention measures to prevent runoff and sediment from leaving the site and entering the Truckee River. This is described in the Biological Assessment developed for the Project and informally consulted on with the US Fish and Wildlife Service. Reclamation received concurrence from the US fish and Wildlife Service on September 11, 2020 for a may affect, not likely to adversely affect determination.

## **National Historic Preservation Act**

Reclamation is responsible for complying with 54 USC § 306108, commonly known as Section 106 of the National Historic Preservation Act. Reclamation determined that pursuant to Section 106 of the National Historic Preservation Act, implementation of the Project may adversely affect historic properties. Reclamation consulted with the Nevada State Historic Preservation Officer, the Advisory

Council on Historic Preservation, and interested parties regarding mitigation measures to resolve the adverse effects on the Canal from the action alternatives. Reclamation and the consulting parties executed a programmatic agreement document to resolve the adverse effect, as defined in 36 CFR 800, on September 25, 2020. The Derby Diversion Dam, a historic property, is in the Area of Potential Effect, but no changes or effects would occur under any of the action alternatives. There would be no direct or indirect effects on Lahontan Dam under any of the action alternatives.

## Mitigation Measures

### ***Construction Related Mitigation***

Reclamation and the TCID have adopted all practicable means to avoid or minimize environmental effects from the proposed action and are committed to implementing the measures identified in the EIS. The EPMS will be included in construction contracts or as conditions of approval in permits and subject to enforcement by Reclamation or the appropriate permitting agency. Reclamation will ensure the environmental measures, in the form of EPMS, are incorporated into any construction contracts awarded by TCID prior to Reclamation issuing the notice to proceed. Reclamation will also provide construction oversight to ensure these measures are being implemented.

### ***Artificial Groundwater Recharge Mitigation***

The Final EIS identifies actions that reduce the impact to artificial groundwater recharge. While Reclamation's position is that it has no legal obligation to continue canal seepage at any rate (See Final EIS, Appendix F), the City of Fernley has proposed some actions that will reduce the impacts, as discussed below. In addition, Reclamation has chosen an alternative that minimizes the impacts by not including full concrete lining of the Fernley reach. The likelihood of the City of Fernley actions occurring and having real impacts on the reduced artificial groundwater recharge impacts rests almost entirely on the City of Fernley.

Sections 3.1.2 and 3.3.2.3 in the Final EIS describe separate actions proposed by the City of Fernley in their Water Resources Plan (2020) that may be implemented to reduce impacts on groundwater users. These actions include two actions Reclamation is currently working on with the City of Fernley (items 1 and 2 listed below). The four actions proposed by the City of Fernley are:

1. **Delivery of Surface Water Rights to the City of Fernley Treatment Plant:** The United States and the City of Fernley entered into a settlement agreement in 2009, in which they established a process to enable the City of Fernley to move forward with a turnout on the Canal to deliver the City of Fernley's surface water rights to its water treatment plant for processing. The City of Fernley has submitted a request to Reclamation for approval to construct the turnout, and Reclamation's decision is anticipated in December 2020. Construction could occur once approval is granted and the Canal is dry. The addition of the surface water source would reduce the need for the City of Fernley to conduct groundwater pumping that would otherwise occur between March 15 and November 15.
2. **Upstream Water Storage:** In March 2017, Reclamation and the City of Fernley entered into a storage contract to store City of Fernley water rights in upstream Truckee River

reservoirs. The storage contract enables the City of Fernley to store up to 10,000 acre-feet annually (AFA) in upstream reservoirs and to store additional water under drought conditions. The City of Fernley recommends in its Water Resource Plan that the City of Fernley use its Claim No. 3 water rights to establish or store up to 3,500 AFA of Fernley Municipal Credit Water after meeting its surface water demands. This would enable the City of Fernley to utilize its stored surface water rights and its Claim No. 3 water rights during a drought period, which would decrease the need for groundwater pumping.

3. **Treatment of Effluent and Development of Brady Hot Springs Source:** As described in its Water Resource Plan, the City of Fernley intends to begin planning for the management of its treated effluent as a future water resource. Assuming that treated effluent is equivalent to 60 percent of water use, this would result in as much as 9,000 AFA of treated effluent being produced/discharged at the City of Fernley’s wastewater treatment facility at buildout. The City of Fernley also intends to develop its Brady Hot Springs resource, which represents approximately 20 percent of the groundwater volume available under the City of Fernley’s water rights, or 2,100 AFA.
4. **Dedication of Water Rights:** Senate bill 250 resulted in changes to Nevada Revised Statutes, which requires water providers to ensure sufficient water supply to parcels prior to dedication of a right to appropriate water. In addition, the dedication requirement must:
  - Be required, pursuant to an ordinance, rule, regulation, or any other requirement adopted by the water supplier
  - Be based on reliable data and procedures estimating demand
  - Consider any requirements for a sustainable water supply
  - Consider historical usage by similar existing water services

The City of Fernley Water Resource Plan (City of Fernley 2020) also states that the City of Fernley should continue to periodically audit for accuracy of the water rights to confirm the amount of water rights allocated to municipal connections. This would also enable the City of Fernley to estimate available water rights for future development within the service area.

### ***National Historic Preservation Act Mitigation***

Reclamation will implement mitigation to resolve adverse effects to historic properties as specified in the programmatic agreement for National Historic Preservation Act Section 106 compliance and listed above, in Table 2.

## **Comments Submitted on the Final EIS**

A Notice of Availability of the Final EIS was published by the U.S. Environmental Protection Agency on September 25, 2020. The Final EIS was posted on Reclamation’s website and a press release was issued by Reclamation. Notices of the availability of the Final EIS were sent to the Cooperating Agencies and email distribution list. No copies of the Final EIS were requested.

Reclamation received comments from four Nevada state agencies (Nevada Department of Wildlife, Nevada Division of Environmental Protection, Nevada Division of Water Resources, and the Nevada State Historic Preservation Office) and the US Environmental Protection Agency (EPA). No other comments were received from individuals, agencies, or organizations.

EPA approved of the Project as stated and thanked Reclamation for including in the response to comments that the EPMs will be included in construction contracts and conditions of approval in permits. Nevada Division of Water Resources and the Nevada State Historic Preservation Office indicated they support the Project as written. Nevada Division of Water Resources noted that the Project needs to comply with applicable Nevada Revised Statutes and the Nevada Administrative Code. Nevada Division of Environmental Protection indicated they have no comments on the Project. Nevada Department of Wildlife (NDOW) indicated they understand the need for maintenance activities to restore safe long-term operation of the canal and “support those options that avoid and minimize disturbance to the greatest extent practical to preserve those wildlife habitat values that don’t conflict with canal operations.” They also recommended biological surveys for bats, ground and tree nesting bird species, as well as native amphibians that may utilize and depend on pond and riparian habitat. EPMs 13, 14, 15 and 20 outline survey requirements prior to surface disturbance within the Project Area, which address the NDOW comments. NDOW noted a correction to the EIS text for Arizona bat (*Myotis occultus*) as this species is not known to occur in Nevada. NDOW also commented about impacts to nesting habitat for both ground and tree nesting bird species due to the removal of vegetation. Section 3.7.2 of the Final EIS analyzes the potential for loss or alteration of bird nesting or foraging habitats, loss of nests, or Project features that could alter breeding and fledging, or pose a risk of injury or mortality.

Reclamation has fully considered the comments received on the Final EIS and concluded that no additional information had been provided that would change its decision.

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