

RECLAMATION

Managing Water in the West

Finding of No Significant Impact

C Canal Flume Replacement

Klamath County, Oregon

2015-EA-008

Prepared by:

 **Date:** 12/15/2015
Tara Jane Campbell Miranda
Natural Resource Specialist
Klamath Basin Area Office

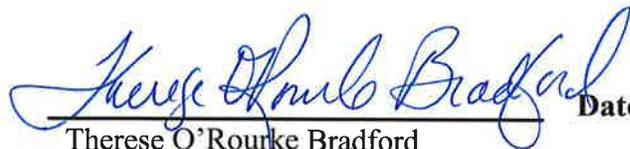
Recommended by:

 **Date:** 12/15/2015
Kristen L. Hiatt
Chief, Environmental Compliance Branch
Klamath Basin Area Office

Concurred by:

 **Date:** 12/15/2015
Jennie M. Land
Chief, Resource Management Division
Klamath Basin Area Office

Approved by:

 **Date:** 12/15/2015
Therese O'Rourke Bradford
Area Manager
Klamath Basin Area Office

Background

In accordance with Section 102(2)(c) of the *National Environmental Policy Act of 1969* (NEPA), as amended, the Bureau of Reclamation (Reclamation) has prepared an Environmental Assessment (EA) to evaluate Reclamation's proposal to authorize Klamath Irrigation District (KID) to construct a replacement structure for the C Canal Flume (C Flume) and advance federal funds to KID for a portion of the work and execute a contract with KID for repayment of such funds. The replacement is needed to satisfy a Category 1 recommendation under Reclamation's Review of Operation and Maintenance inspections. Reclamation may also elect to advance funds to KID to cover a portion of costs in connection with the repair and/or replacement of the C Flume, and enter into a repayment contract with KID for the corresponding construction costs and repayment of such funds. After thorough review and analysis, the environmental assessment resulted in a Finding of No Significant Impact.

The C Flume, an elevated (approximately) 4,300 foot concrete segment of the C Canal, facilitates delivery of water from Upper Klamath Lake to approximately 22,000 acres of agricultural land within the Klamath Reclamation Project (Project) located in Klamath County, Oregon. Originally constructed in 1909 as a wood structure, the C Flume was replaced in 1922 with precast concrete U-shaped sections using simple push-together joints placed on the original foundations. Numerous repairs have been made to the C Flume since 1922, including repairing cracks and columns, reinforcing portions of the longitudinal beams with steel members, and temporary wood and steel shoring for some of the beam sections. Recent inspections under Reclamation's Review of Operation and Maintenance Program identified unacceptable deficiencies associated with the C Flume resulting in a Category 1 recommendation which requires repair and/or replacement of deteriorated beams, columns, and other structural members of the C Flume.

Reclamation would inspect all ongoing and completed work performed by KID to determine it is consistent with authorized designs and specifications pursuant to 7(b) of Contract 14-06-200-3784 between Reclamation and KID (dated November 29, 1954). Reclamation's prior approval is required for all work to be performed by KID under the proposed action. In determining whether or not to approve the work, Reclamation may require, review and approve engineering designs and specifications, potentially pursuant to Mid-Pacific Regional Office form MP-620 and upon completion of all necessary environmental compliance.

Alternatives Including the Proposed Action

No Action Alternative:

Under the No Action Alternative, Reclamation would not authorize KID to construct the proposed replacement structure; or for modification or alterations to the C Flume nor advance federal funds to KID for a portion of the work and execute a contract with KID for repayment of such funds. No improvements would be made to the existing structure; however, annual operation and maintenance activities for the C Flume would continue to occur as in the past. Reclamation considers the No Action Alternative to be unacceptable for the long-term due to human, health, and safety risks. Additionally,

the No Action Alternative does not meet the purpose and need for the proposal.

Proposed Action Alternative:

Under the Preferred Alternative, Reclamation would review and approve the engineering designs and specifications submitted by KID and authorize KID to modify or alter the facility by undertaking construction actions to correct the C Flume Category 1 recommendation. Additionally, Reclamation would advance KID federal funds for a portion of the cost of the work and enter into a contract with KID for repayment of such funds. KID would replace the existing C Flume facility with a buried pipeline.

The new facility would include approximately 3,600 feet of a 10-foot diameter buried pipe, 200 feet of an elevated steel pipe structure spanning over the Lost River Diversion Channel (LRDC), and 500 feet of elevated 10-foot diameter pipe south of the LRDC crossing. The elevated portion would be constructed of steel (AWWA C200) and the underground pipe would be made of either steel (AWWA C200), steel reinforced polyethylene (SRPE), or high density polyethylene pipe (HDPE). Construction of the new facility is proposed on both sides of the existing structure to allow the existing C Flume to remain in service until the end of the irrigation season in October 2016.

Public Comment

Reclamation prepared the attached EA to evaluate the effects of the Proposed Action. The EA was available for public review on November 12, 2015, to November 30, 2015. One comment was received from the Klamath Tribes on November 24, 2015, regarding a concern over the need for Reclamation to develop an Inadvertent Discovery Plan. This comment is addressed in item 10 below.

Findings

Based on the attached EA (including the environmental commitments listed in item 14 below), Reclamation finds that the Proposed Action is not a major Federal action that will significantly affect the quality of the human environment. The attached EA describes the existing environmental resources in the Proposed Action area and evaluates the effects of the No Action and Proposed Action alternatives on the resources. Effects on several environmental resources were examined and found to be absent or minor. That analysis is provided in the attached EA, and the analysis in the EA is hereby incorporated by reference.

This FONSI is based on the following:

1. Indian Trust Assets

There are no Indian reservations, Rancherias or allotments in the project area.

The proposed action does not have a potential to affect ITAs. The nearest ITA is a Public Domain Allotment approximately 14.86 miles northwest of the Proposed Action area (*see* Appendix E).

2. Indian Sacred Sites

There are no identified Indian Sacred Sites within the action area of the proposed project and therefore this project will not inhibit use or access to any Indian Sacred Sites.

3. Environmental Justice

No significant changes in agricultural communities or practices will result from the Proposed Action, other than potential changes to individual irrigation systems. These changes are not likely to affect agricultural employment, which employs a higher proportion of low-income and minority workers than are employed in the general workforce. Accordingly, the Proposed Action will not have any significant or disproportionately negative impacts on low-income or minority individuals within the project area.

4. Climate Change and Green House Gases

Implementation of the Proposed Action will result in insignificant impacts to climate change or increases in greenhouse gases due to the size and scope of the project, small change from current conditions, and duration of use that is limited to the project construction period.

5. Recreation

Recreation is not allowed within or adjacent to the C Flume. There will be no change from existing conditions with implementation of either alternative.

6. Noise

Implementation of the Proposed Action will result in construction activities that will temporarily dominate the noise environment in the project area. Construction noise will be temporary and will be minimized by limiting the construction work hours between 7:00 am and 7:00 pm Monday through Saturday. Noise impacts resulting from the Proposed Action will be temporary and insignificant.

7. Socioeconomics

Implementation of the Proposed Action will create a short-term demand for construction related products and services, creating short-term jobs and supporting local vendors. These impacts will be temporary and thus result in an insignificant impact on socioeconomic conditions in the project region.

8. Biological Resources

On October 23, 2015, a species list of federally listed, proposed and candidate species potentially occurring within the Proposed Action area and surrounding areas was obtained from the U.S. Fish and Wildlife Service's (USFWS) website. The only listed fisheries species that may be affected by the proposed action, specifically related to dewatering of the LRDC, are the Lost River and the shortnose suckers. Therefore, the following avoidance and minimization measures will be followed to avoid any potential adverse effects.

- During dewatering of the LRDC, a sufficient water depth will be maintained to ensure the survival of stranded fish during the dewatering and construction phases of this effort.
- Reclamation staff, in coordination with the USFWS and Oregon Department of Fish and Wildlife (ODFW), will salvage fish that are stranded in small and shallow pools within the LRDC. All salvaged fish of species other than suckers and trout will be relocated to larger pools within the LRDC that have sufficient depth to provide survival for several weeks while the work is conducted.

- Block nets and electro-fishers will be used to isolate and remove all fish from the immediate construction area (i.e., 100 feet to the east and west of the existing C Flume Crossing) until a temporary coffer dam is installed.
- Pools with remaining fish will reconnect to the Klamath River and the Lost River once the LRDC is re-watered following construction.
- Biological monitoring will be incorporated throughout the dewatering and construction phases to ensure water conditions are adequate for fish protection.
- If Lost River and shortnose suckers are encountered during the salvage of disconnected pools, Reclamation will coordinate with the USFWS and on where to relocate the salvaged individuals. The relocation of salvaged trout from the LRDC will be coordinated with ODFW.

The proposed dewatering and salvage activity, (summarized above and detailed in Appendix C of the attached EA) has been previously analyzed for its potential impacts to endangered suckers in the May 31, 2013, *Biological Opinions on the Effects of Proposed Klamath Project Operations from May 31, 2013, through March 31, 2018, on Five Federally Listed Threatened and Endangered Species* (BiOp) issued jointly by the USFWS and the National Marine Fisheries Service. As a result, Reclamation has determined the potential impacts of the Proposed Action and associated salvage are within the scope of analysis of the BiOp and has requested USFWS concurrence. Informal consultation with the USFWS was conducted with concurrence from the USFWS received on December 15, 2015 (Appendix H).

Reclamation concluded there are no endangered plant species present within the C Flume project area. From the shapefiles used, the closest instance of a listed endangered species (Applegate's milk-vetch) is approximately 1.5 miles from the project area and no effect is likely to occur with implementation of this project (*see* Figure 1-2 of the EA).

Overall, the proposed activities are not expected to result in negative effects on terrestrial species including eagles and or migratory birds protected under the *MBTA* or the *Bald and Golden Eagle Protection Act*.

9. Surface and Groundwater

Dewatering of the surface waters within the LRDC (described in section 2.2.1 of the attached EA) will occur as part of the Proposed Action. Temporary and isolated turbidity from executing fish salvage activities and installing temporary coffer dams, crane pads and permanent steel piles will result in insignificant impacts as the effects will be minimal, localized, and temporary in nature. On May 9, 2014, Reclamation obtained authorization under the U.S. Army Corps of Engineers Nationwide Permit #3 (maintenance) for work in the LRDC therefore complying with the Clean Water Act (CWA) Section 404. Reclamation additionally obtained confirmation on October 22, 2015, from the Oregon Department of Environmental Quality that the Proposed Action is authorized under the CWA National Pollutant Discharge Elimination System 1200-CA permit.

10. Cultural Resources

Reclamation's proposed action constitutes an undertaking requiring compliance with 54 U.S.C. § 306108, commonly known as Section 106 of the National Historic Preservation Act (NHPA). Reclamation, in consultation with the State Historic Preservation Officer (SHPO), determined the C Canal Flume is a historic property eligible for inclusion in the National Register of Historic Places.

The removal of the C Canal Flume was found to constitute an adverse effect on the historic property. Through the NHPA Section 106 process, Reclamation and the SHPO negotiated a memorandum of agreement (MOA) to resolve the adverse effect to the C Canal Flume. The MOA, which was executed on December 10, 2015, stipulates that Reclamation will complete the following mitigation measures to resolve the adverse effect:

- C Canal Flume Documentation. Reclamation will document the C Canal Flume in accordance with the Oregon SHPO Documentation Standards for the Mitigation for Adverse Effects under Section 106 of the NHPA.
- Klamath Project Public Interpretation. Reclamation will develop and install a minimum of two interpretative panels along the A Canal Recreation Trail to relay information about the history and significance of the Klamath Project to members of the general public in Klamath Falls.

Through correspondence dated November 24, 2015, The Klamath Tribes provided comments on the C Canal Project specifically related to the potential for encountering buried cultural resources in the project area. Reclamation will work with The Klamath Tribes to address their concerns in accordance with 36 CFR Part 800. Any discovery of buried cultural resources during project implementation will require compliance with 36 CFR § 800.13(b)(3), to include consultation with The Klamath Tribes and the further consultation with the SHPO. The inadvertent discovery of Native American human remains during construction will be subject to the Native American Graves Protection and Repatriation Act and handled in close consultation with The Klamath Tribes.

11. Hazardous and Toxic Materials

Activities associated with the Proposed Action will utilize potentially hazardous materials associated with the operation of vehicles and construction equipment during implementation. Implementation of best management practices will minimize the potential for any hazardous materials to be a public hazard. These practices will ensure that the impacts with respect to hazardous materials will be less than significant.

12. Air Quality

Under the Proposed Action, construction activities will generate short-term and localized fugitive dust, gas, and diesel emissions, which could affect air quality. KID or its contractor will implement fugitive dust mitigation measures, including provisions in construction contract documents that require minimization of the construction-related impacts on air quality in order to minimize impacts to air quality which are expected to be insignificant.

13. Traffic and Transportation

Implementation of the proposed action will result in insignificant impacts to traffic and transportation as construction near and on the highway will be temporary in nature. To further reduce impacts, KID or its contractor will implement a traffic control plan as approved by the Oregon Department of Transportation.

14. Environmental Commitments

The following environmental commitments and permitting conditions will be implemented before, during, and after construction to assure no significant impacts will occur as a result of the Proposed Action.

General

- KID and its contractors shall be responsible for complying with all environmental requirements identified in this EA, as well as all federal, state, and local laws and or permits that have already been obtained or are yet to be obtained (*see* Section 1.7).
- Reclamation's Safety and Health Standards and all applicable Reclamation standards and directives will be applied during construction activities to minimize environmental impacts.
- KID or its contractor will be responsible for developing and implementing following mitigation and control plans to reduce and or eliminate potential environmental impacts as a result of implementation of the Proposed Action:
 - Erosion and Sediment Control Plan
 - Hazardous and Toxic Materials Control Plan
 - Spill Prevention Control and Countermeasure Plan
 - Traffic Control Plan
 - Fugitive Dust Control Plan

In addition to those plans listed above, Reclamation will be responsible for administering the LRDC Dewater Fisheries Salvage Plan.

Access:

- Construction access will be established to define the points of entrance and/or exit to the construction site to stabilize and reduce the tracking of mud and dirt onto the public highway by construction vehicles. The stabilized construction entrances will be inspected to remove sediments that may have built up on a regular basis, or within 24 hours after storm events, and repaired as necessary.
- Existing roads and staging areas will be used whenever possible for project activities. Use of privately-owned land for access will only occur under and consistent with executed temporary construction easements (acquired by Reclamation prior to construction beginning).
- Designation of areas with fencing or other barriers demarking construction areas, staging areas, and access points will be installed prior to and during all construction activities.
- All construction activities will be confined to Reclamation's ROW or on land in which Reclamation has acquired a temporary construction easement.

Air Quality

- If a rock crusher is required for demolition activities, the contractor will obtain an Air Quality Discharge Permit from ODEQ (pursuant to its website accessed at: <http://www.deq.state.or.us/regulations/rules.htm>) prior to bringing the rock crusher on-site. Additionally, the contractor may need to submit a notice of construction, if applicable, through the ODEQ office in Bend, Oregon prior to crushing activities occurring.
- KID and its contractor will develop and comply with all conditions imposed by OWRD under the limited license for use of water for fugitive dust abatement.

- KID and its contractor would implement an approved fugitive dust control plan. This plan would include measures for minimizing fugitive dust such as applying dust suppressants and/or water sprays, minimizing the extent of disturbed surface areas, and restricting activities during periods of high wind.

Biological-Fisheries

- Reclamation will obtain a Scientific Taking Permit from ODFW prior to dewatering of the LRDC. Reclamation will conduct fish salvage and comply with the conditions of the permit and USFWS recommendations. KID or its contractor will provide Reclamation a minimum notice of two weeks prior to wanting to initiate dewatering of the LRDC. Reclamation will then notify and coordinate with ODFW and USFWS.

Cultural and Paleontological Resources

- In the event that any cultural resources, either surface or subsurface, are inadvertently discovered during construction, Reclamation's Mid-Pacific Regional archaeologist shall be notified and construction in the area of the inadvertent discovery will cease until an assessment of the resource and recommendations for further work can be made by a professional archaeologist. Consultation with the SHPO and The Klamath Tribes regarding the discovery will be required pursuant to 36 CFR § 800.13. Any person who knows or has reason to believe that he/she has inadvertently discovered possible Native American human remains on Reclamation land must immediately provide telephone notification of the discovery to Reclamation's Mid-Pacific Regional archaeologist. Work will stop until the proper authorities are able to assess the situation on-site. This requirement is prescribed under the Native American Graves Protection and Repatriation Act (NAGPRA) (43 C.F.R. Part 10) and the Archaeological Resources Protection Act of 1979 (16 U.S.C. §470). Reclamation will consult with The Klamath Tribes and/or other appropriate culturally affiliated Indian tribe(s) regarding the disposition of any inadvertently discovered human remains and associated funerary object pursuant to the requirements of NAGPRA.
- The terms of the Memorandum of Agreement (MOA) between Reclamation and the SHPO to mitigate the adverse effects of the Proposed Action will be implemented as outlined in the MOA (Appendix A).
- In the case that any paleontological resources, either surface or subsurface, are encountered during construction, Reclamation's Mid-Pacific Regional archaeologist shall be notified immediately and construction in the area of the inadvertent discovery will cease until an assessment of the resource and recommendations for further work can be made by Reclamation's Mid-Pacific Region.

Hazardous Fuels and Materials

- A visual environmental site survey as part of the pre-construction meeting with Reclamation will be conducted prior to initiating construction. Any materials or hazardous substances in the ROW area that could be exposed will be removed or other appropriate remedial action taken prior to start of construction.
- The contractor will prepare a project-specific Spill Prevention Control and Countermeasure Plan (or similar) to be approved by Reclamation to address secondary containment, prevention of spills, spill containment and cleanup procedures, and materials on hand to accomplish the

containment and cleanup of petroleum and other hazardous products that may be brought on site. The plan shall be approved by Reclamation prior to moving any of these products on site and prior to any construction activity.

- If on-site storage occurs, lubricants and fuels will be placed in temporary, clearly marked, above-ground containers and provided with secondary containment. Construction equipment will be maintained and inspected regularly. Any soil contaminated by fuel or oil will be removed and disposed of by KID (or its contractor) to an approved disposal site.
- Any hazardous materials and other hazardous substances that are used in construction will be disposed of in accordance with applicable laws and regulations. Excess or unused quantities of hazardous materials will be removed upon project completion. Although hazardous waste generation is not anticipated, any such wastes produced during construction will be properly containerized, labeled, and transported to an approved hazardous waste disposal facility. All nonhazardous waste materials including construction refuse, garbage, and sanitary waste, will be disposed of by removal from the work area to an approved disposal facility. Disposal of any and all materials by burning will not occur. All elements of the Hazardous and Toxic Control Plan to be developed by KID or its contractor, will be implemented and followed throughout the duration of the Proposed Action work timeframe.

Land

- After construction is complete, the contractor shall seed Reclamation's ROW with a suitable seed mix, approved by Reclamation, for the soil and landscape of the area. The purpose of this seeding will be to reduce erosion and sedimentation. If the soil has been compacted, the top layer of the soil should be tilled to allow for proper establishment of the plants' root systems. The seeded area shall be covered with certified weed-free mulch after the seed is applied.

Noise

- BMP's will be implemented to control temporary noise impacts during construction including mufflers on heavy equipment. The contractor will follow all state and local noise ordinances. To reduce disruptive noise emissions, the contractor will restrict construction activities to the following timeframes: 7:00 A.M. to 7:00 P.M., Monday through Sunday. Work outside this time period requires advance approval from Reclamation or KID. Upon approval, KID will be required to contact adjacent landowners prior to work commencing to inform them of the potential change in work hours and the anticipated level of temporary noise increases during specific construction activities. There will be no long-term increases to the ambient noise levels after construction is completed.

Records

- KID and its contractors will keep all environmental permits, conditions, guidelines, Reclamation's Safety and Health Standards and all plans and BMPs on the job site and readily available for reference by Reclamation, ODEQ, USACE, USFWS, ODFW, and other appropriate state and local government inspectors.

Utilities

- KID and its contractors will be responsible for locating, marking, and protecting all utilities within the work area prior to commencing ground disturbing activities.

Water Quality

- Silt fencing along the embankment of the LRDC and work areas along the 1A drain (parallel to the C Flume) will be established prior to commencing the Proposed Action. Ponding will not be permitted behind the silt fences as the fences will collapse under high pressure. The design of the silt fences will provide sufficient outlets to prevent overtopping. The maximum height of the silt fence should range between 18 and 36 inches above the ground surface (depending on the amount of upslope ponding expected). Silt fences will be inspected daily during periods of prolonged rainfall, immediately after each rainfall event and weekly during periods of no rainfall. Any required repairs will be made immediately. Sediment must be removed when it reaches one-third to one-half the height of the silt fence. Fences will not be removed until the upslope area has been permanently stabilized with reseeded vegetation. Any sediment deposits remaining in place after the silt fence has been removed will be dispersed to conform to the existing grade.
- Erosion control BMPs will be implemented during all ground disturbing activities to reduce runoff and allow for infiltration, provide sediment trapping and support the establishment of permanent ground covers (e.g., vegetative cover). KID and its contractors shall also comply with the Erosion and Sediment Control Plan as shown in Appendix B of the EA and as detailed by KID or its contractor. This plan will serve to provide detailed information about the construction site, and serves as a blueprint for the location, installation, and maintenance of the erosion and sediment control measures to minimize erosion and reduce sediment entering the LRDC. Erosion prevention BMPs may include, but are not limited to surface roughening, temporary vegetation cover, erosion blankets, dust control, etc.
- Temporary fills must be removed from the LRDC entirety and the affected areas returned to pre-construction conditions. The affected areas must be stabilized and revegetated, as appropriate.
- KID and its contractors will implement all reasonably available controls and practices to minimize turbidity during in-water work.
- KID and its contractors will comply with all conditions imposed by OWRD under the limited license for use of water for dust abatement.
- All materials (e.g., coffer dams, crane pad, and or fish salvage tools) anticipated to be placed in the LRDC will be inspected by Reclamation prior to installation to ensure they do not contain or are not coated with chemicals or like substances that could leach and effect present surface waters.

Coffer dams will be constructed of non-erosive material, such as concrete jersey barriers, sand and gravel bag dams, or water bladders. Constructing a coffer dam by pushing material from LRDC bed or banks will not occur. The coffer dams will include sand and gravel bag dams which will be lined with a plastic liner or geotextile fabric to reduce permeability and prevent sediments and/or construction materials from entering the channel.

Appendix A. Memorandum of Agreement between Reclamation and the Oregon State Historic Preservation Officer.

MEMORANDUM OF AGREEMENT
BETWEEN
THE U.S. BUREAU OF RECLAMATION
AND
THE OREGON STATE HISTORIC PRESERVATION OFFICER
REGARDING THE REMOVAL OF THE C-CANAL FLUME,
KLAMATH FALLS, OREGON

WHEREAS, the Bureau of Reclamation (Reclamation) plans to authorize Klamath Irrigation District (KID) to remove and replace the C-Canal Flume, an approximately 4,200-foot-long elevated concrete section of a larger conveyance known as the C-Canal, which is a principle water conveyance within Reclamation's Klamath Project; and

WHEREAS, Reclamation retains underlying ownership of the C-Canal Flume, while KID, under Reclamation Contract 14-06-200-3784, dated November 29, 1954, is responsible for its operation, maintenance, and repair; and

WHEREAS, Reclamation's authorization of the C-Canal Flume removal and replacement constitutes an undertaking requiring compliance with 54 U.S.C. § 306108, commonly known as Section 106 of the National Historic Preservation Act (NHPA); and

WHEREAS, Reclamation defined the undertaking's area of potential effects (APE) to include the entirety of the C-Canal Flume structure that will be removed; and

WHEREAS, Reclamation determined, with consensus from the Oregon State Historic Preservation Officer (SHPO), that the C-Canal Flume is eligible for listing in the National Register of Historic Places (National Register); and

WHEREAS, Reclamation finds, and SHPO concurs, that the undertaking will result in an adverse effect on the C-Canal Flume; and

WHEREAS, Reclamation consulted with KID regarding the effects of the undertaking on historic properties and invited them to sign this MOA as a Concurring Party; and

WHEREAS, pursuant to 36 CFR § 800.3(f)(2), Reclamation identified and invited The Klamath Tribes to participate in the Section 106 process and the tribe did not request to be a consulting party for the undertaking; and

WHEREAS, in accordance with 36 CFR § 800.6(a)(1), Reclamation notified the Advisory Council on Historic Preservation (ACHP) of its adverse effect determination with specified documentation, and as conveyed through correspondence dated September 25, 2014, the ACHP chose not to participate in the consultation related to this MOA pursuant to 36 CFR § 800.6(a)(1)(iii); and

WHEREAS, the definitions given in 36 CFR § 800.16 are applicable throughout this MOA; and

NOW, THEREFORE, Reclamation and the SHPO agree that the undertaking will be implemented in accordance with the following stipulations in order to take into account the effect of the undertaking on historic properties.

STIPULATIONS

I. MITIGATION MEASURES

A. Documentation of C-Canal Flume

- i. Reclamation will document the C-Canal Flume in accordance with State Level Documentation standards as outlined in the Oregon SHPO Documentation Standards for the Mitigation for Adverse Effects under Section 106 of the National Historic Preservation Act or ORS 358.653 (Appendix A).
 - a. State Level Documentation minimally will include photo documentation of the existing C-Canal Flume structure, including the existing transition points with adjacent C-Canal segments (i.e., Upper C-Canal and C-Canal Aqueduct) and a representative sample of C-Canal Flume components (e.g., check structures, gates, turnouts, etc.). A high resolution digital single lens reflex (SLR) camera will be used for the photo documentation.
 - b. Reclamation will submit a draft photo documentation package to the SHPO for review and comment.
 1. The SHPO will have 30 days to review and provide comments to Reclamation on the draft documentation package. Upon receipt, Reclamation will address SHPO comments and submit a final documentation package within 45 days.
 2. If the SHPO does not provide comments within 30 days of receipt of the draft documentation package, Reclamation may proceed to finalize the documentation package. The final documentation package will be submitted to the Oregon Historical Society, University of Oregon Architecture and Allied Arts Library, and Klamath County Museum in the format preferred by those repositories. One digital copy, burned to compact disc, will be provided to the SHPO within 45 days following the close of the review and comment period.
- ii. Stipulation I(A) will be completed within 1 year of the final signature on this document.

B. Klamath Project Public Interpretation

- i. Reclamation will develop and install a minimum of two interpretative panels no less than 2x4 feet, and made of a sturdy, weatherproof construction suitable for long-term exterior display to relay information about the history and significance of the Klamath Project to members of the general public in Klamath Falls. The panels will be installed along the A Canal Recreation Trail, a paved pedestrian and bicycle path constructed as a community project in 1978 that serves as an alternative route of travel through both urban and suburban areas of Klamath Falls. The approximately 4-mile-long trail runs adjacent to Reclamation's A Canal and connects with city parks, school playgrounds, a community pool, the YMCA, and the Klamath County Fairgrounds. The A Canal, which was constructed beginning in 1906, was the first canal built as part of the Klamath Project.
 - a. Reclamation will utilize existing historical context, maps, photographs, and any materials collected in completion of Stipulation A related to the origin and development of the Klamath Project to create the interpretive panels.
 - b. Reclamation will provide the proposed narrative and visual elements of the panels to the SHPO for review and comment prior to installation.
 1. The SHPO will have 30 days to review and provide comments to Reclamation on the proposed content for the interpretative panels.
 2. If the SHPO does not provide comments within 30 days of receipt of the proposed content, Reclamation may proceed with finalizing and installing the interpretative panels.
 - ii. Stipulation I(B) will be completed within two years of the final signature on this document.
- C. The terms of this MOA will be fulfilled upon Reclamation's submission and confirmed by SHPO upon receipt of the final C-Canal Flume documentation package and installation of the Klamath Project interpretive panels on the A Canal Recreation Trail.

II. STANDARDS AND QUALIFICATIONS

All stipulations in this MOA will be carried out by or under the direct supervision of a person or persons meeting, at minimum, the Secretary of the Interior's Professional Qualification Standards in the appropriate discipline as outlined at 48 FR 44738- 44739.

III. EFFECTIVE DATE

This MOA will take effect on the date that it has been fully executed by the Signatories. Upon execution of this MOA, all parties agree that Reclamation may proceed with the approval of subsurface construction activities required to complete the undertaking. Demolition of the C-Canal Flume will not occur until the terms of Stipulation I(A) of the MOA are fulfilled.

IV. DURATION

This MOA will expire if its terms are not carried out within three (3) years from the date of its execution. Prior to such time, Reclamation may consult with the other signatories to reconsider the terms of the MOA and amend it in accordance with Stipulation VIII below.

V. POST-REVIEW DISCOVERIES

If properties are discovered that may be historically significant or unanticipated effects on historic properties are found during implementation of the undertaking, Reclamation will follow the procedures outlined at 36 CFR § 800.13(b)(3).

VI. MONITORING AND REPORTING

Following the execution of this MOA until it expires or is terminated, Reclamation will prepare an annual report in brief memo format for the SHPO documenting the progress made or actions undertaken for the prior Federal fiscal year of October 1 through September 30. The report, which Reclamation will submit to the SHPO by January 30 of the subsequent fiscal year, will provide a summary report of the work undertaken pursuant to the terms of the MOA, including any proposed scheduling changes, problems encountered, and disputes or objections encountered by Reclamation in carrying out the terms of this MOA.

VII. DISPUTE RESOLUTION

- A. Should any Signatory or Concurring Party to this MOA object at any time to any actions proposed or the manner in which the terms of this MOA are implemented, Reclamation will consult with such party to resolve the objection. If Reclamation determines that such objection cannot be resolved, Reclamation will:
- i. Forward all documentation relevant to the dispute, including Reclamation's proposed resolution, to the ACHP. The ACHP will provide Reclamation with its advice on the resolution of the objection within thirty (30) days of receiving adequate documentation. Prior to reaching a final decision on the dispute, Reclamation will prepare a written response that takes into account any timely advice or comments regarding the dispute from the ACHP, signatories and concurring parties, and provide them with a copy of this written response. Reclamation will then proceed according to its final decision.

- ii. If the ACHP does not provide its advice regarding the dispute within the thirty (30) day time period, Reclamation may make a final decision on the dispute and proceed accordingly. Prior to reaching such a final decision, Reclamation will prepare a written response that takes into account any timely comments regarding the dispute from the signatories and concurring parties to the MOA, and provide them and the ACHP with a copy of such written response.
- iii. Reclamation's responsibilities to carry out all other actions subject to the terms of this MOA that are not the subject of the dispute remain unchanged.

VIII. AMENDMENTS

Any party wishing to amend this MOA must submit the text of the proposed amendment in writing to all signatories. Signatories shall have 30 days to either agree to the amendment in writing or provide written comments describing their objections to the amendment. The amendment will be effective on the date a copy signed by all of the signatories is filed with the ACHP.

IX. TERMINATION

If any signatory to this MOA determines that its terms will not or cannot be carried out, that party will immediately consult with the other signatories to attempt to develop an amendment per Stipulation VIII, above. If within thirty (30) days (or another time period agreed to by all signatories) an amendment cannot be reached, any signatory may terminate the MOA upon written notification to the other signatories.

Once the MOA is terminated, and prior to work continuing on the undertaking, Reclamation must either (a) execute an MOA pursuant to 36 CFR § 800.6 or (b) request, take into account, and respond to the comments of the ACHP under 36 CFR § 800.7. Reclamation will notify the signatories and concurring parties to this MOA as to the course of action it will pursue.

Execution of this MOA by Reclamation and the SHPO and implementation of its terms evidence that Reclamation has taken into account the effects of this undertaking on historic properties and afforded the ACHP an opportunity to comment.

SIGNATORY:

BUREAU OF RECLAMATION

FOR BY: 
David G. Murillo
Regional Director, Mid-Pacific Region

DATE: 12-10-15

SIGNATORY:

OREGON STATE HISTORIC PRESERVATION OFFICE

BY *Christine Curran*

DATE: *11.16.15*

Christine Curran
Deputy State Historic Preservation Officer

CONCURRING PARTY:

KLAMATH IRRIGATION DISTRICT

BY 

DATE: 11/20/15

APPENDIX A

Oregon SHPO Documentation Standards

Mitigation for Adverse Effects under Section 106 of the National Historic Preservation Act or ORS 358.653

In cases where an action by a local, state or federal agency will adversely affect a listed or potentially-eligible National Register property, documentation may be required as part of the mitigation for the undertaking. Documentation is not necessarily adequate in all cases. Agencies should contact the Oregon State Historic Preservation Office (SHPO) before planning or completing any mitigation measures, including documentation.

State Level Documentation

The following items are required for all state level documentation.

- 1. Architectural description of the building** - Description should be surface-by-surface, covering the entire exterior of the building, noting all important character-defining elements, fenestration types and patterns. Include descriptions of key interior areas, if accessible. Include discussion of all observed alterations, and provide dates for them. Descriptions should be not less than 500 words and use appropriate architectural terms.
- 2. Building history** - History of not less than 500 words discussing at least when the building was constructed and by whom, the building or structure's use over time, and any important persons or events associated with the resource. Be as accurate as possible. If the documentation is being conducted for mitigation purposes, give extra detail to those elements being impacted. Contact the Oregon SHPO for research suggestions.
- 3. Bibliography** - Include a bibliography of all resources used in the preparation of the document, including sources for appended archival materials described in item 8.
- 4. Map** - Digital image of the appropriate United States Geological Survey (USGS) Map with the location of the property marked. A portion of the entire map may be printed for free from a website such as topoquest.com and marked by hand.
- 5. Scale site plan** - Include subject building or structure and adjacent buildings and structures on the same tax lot. Drawing may be done by hand as long as it reasonably to scale. Include the name of the person completing the map, date the map was completed, map scale, and north arrow on the map. The name and/or use of each building, structure, object, and adjacent streets on the map should be labeled.
- 6. Scale Floor plans** - Include each floor of the subject building or structure. Drawing may be done by hand as long as it reasonable to scale. Include the name of the person completing the map, date the map was completed, map scale, and north arrow on the map. The name and/or use of each space should be labeled.
- 7. Photographs** - Include photos of the building or structure interior and exterior. Photos may be taken as 35mm black-and-white 4x6 images or as color digital images. Digital and print images and prints must meet all aspects of the Oregon SHPO Digital Photo Checklist available at the SHPO website: http://www.oregonheritage.org/OPRD/HCD/NATREG/nrhp_documents.shtml.
- 8. Archival materials** - If available, include original architectural drawings or maps, brochures, photos, newspaper clippings, or other archival items of interest relating to the history of the building or structure.

Provide three complete hard-copy sets of documentation including printed photos, and one CD containing a digital copy of the complete submission to the Oregon SHPO. A fourth full set may be required in cases where there is a local repository that is interested in receiving the materials.

Historic American Building Survey (HABS) and Historic American Engineering Record (HAER) Documentation

In cases where HABS / HAER documentation is required, the provided materials must meet all standards set by the National Heritage Documentation Programs Office, including archiving at the Library of Congress. The level of documentation is negotiated on a case-by-case basis between the agency managing the project and the Oregon SHPO. Documentation standards may be found at: <http://www.nps.gov/hdp/>.