

# RECLAMATION

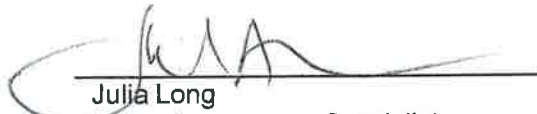
*Managing Water in the West*

## Categorical Exclusion Checklist

# MARBLE BLUFF DAM SPILLWAY REPAIR

LO-2012-1014

Prepared by:

  
Julia Long  
Natural Resources Specialist  
Mid-Pacific Region  
Lahontan Basin Area Office

Date: 4-13-15

Concurred by:

  
Locke Hahne  
Manager, Operations & Maintenance  
Division  
Mid-Pacific Region  
Lahontan Basin Area Office

Date: 4/14/2015

Recommended by:

  
Rena Ballew  
Resource Division Manager  
Mid-Pacific Region  
Lahontan Basin Area Office

Date: 4-14-15

Approved by:

  
Roger Worsley  
Deputy Area Manager  
Mid-Pacific Region  
Lahontan Basin Area Office

Date: 4-14-15



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**Project Name:** Marble Bluff Dam Spillway Repair

**CEC Number:** LO-2012-1014

**Fund and WBS:** R3372096 15XR0680A5

**Date:** 04/13/2015

**Exclusion Category:** *516 DM 14.5 D.1 – Maintenance, Rehabilitation, and replacement of existing facilities which may involve a minor change in size, location, and/or operation.*

**Nature of Action:** Construction of Marble Bluff Dam was completed in 1975. The dam was built to prevent upstream river channel head cutting which was encroaching on the town of Nixon, Nevada. Additionally, to allow for fish passage, the dam allows for diversion of water down the Pyramid Lake Fishway.

The design of the dam is unique in nature and was constructed with concrete dentates that are 4 feet 10 inches high, projecting upward from the concrete apron. The purpose of the dentates is to dissipate water velocity as it spills over the dam and enters the river.

Significant erosion and damage was encountered on the Marble Bluff Dam sluiceway and spillway during an inspection that occurred December 2009. This inspection identified the need to repair erosion and damage that is occurring on the concrete dentates and spillway apron. Erosion is occurring due to continued water and debris flow over the concrete dentates and spillway apron. (Figure 3)

The Proposed Action includes the following:

- Replace three dentates that are completely or partially missing within the sluiceway area (Figure 6)
- Repair surface concrete on twenty-two dentates within the sluiceway and spillway areas (Figure 6)
- Add detachable stainless steel armor on twelve dentates within the sluiceway area (Figure 6)
- Repair approximately 375 square feet of concrete on the apron
- Inspect inoperable drains and repair as needed
- Large woody debris that has accumulated on the dentates will be removed and will be deposited at an upland location (Figure 4)

Dentates will be repaired and/or replaced in the sluiceway area (downstream of radial gates) and on the spillway during a 4–5 month period, outside of the fish spawning period. To control water flow during maintenance activities, three temporary coffer dams will be placed on the concrete spillway apron. One coffer dam will be placed above the top row of the dentates, extending across the spillway in a northeast direction, the secondary coffer dam will be positioned between dentates in a northwest direction, and the third coffer dam will extend

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northeast across the base of the spillway, over the bottom row of sediment covered dentates which are located within the river channel. The temporary coffer dams will re-direct water away from the work area to ensure a safe work environment (Figure 6).

The three coffer dams will consist of one or more of the following: sand bags, plywood, plastic bladders, or concrete K-rails, depending upon contractor preference and coffer dam effectiveness. The coffer dams may require anchoring into the concrete dam but will not be anchored into the embankment adjacent to the dam.

During ongoing maintenance activities, heavy equipment such as a crane and/or small skid steer will be positioned on the concrete hardened surface adjacent to the dam, on the embankment, and/or on the concrete apron located on top of the dam. To mitigate possible fluid leaks from mechanical equipment failure, drip diapers will be placed under the equipment when it is positioned on the concrete apron.

The existing concrete apron is 1.5 feet thick. During concrete apron repairs, 375 square feet of area exhibiting damage will be repaired. A depth of approximately 1–2 inches from the concrete apron surface will be saw-cut and removed then roughened or scarified to prepare the surface for placement of new concrete. During the repair of the twenty-two dentates, a depth of approximately 1–2 inches of concrete will be saw-cut and removed from the upstream face of the dentate and from the damaged areas of the apron on the upstream side of the dentates. The area will then be roughened and cleaned in preparation for placing new concrete. The three dentates in need of replacement will require removing the entire dentate as well as 2 inches of concrete just into the existing concrete apron. Removing 2 inches of concrete and roughening or scarifying the concrete down into the apron will create a better bond for the new concrete. Epoxy coated rebar will be embedded into the existing apron and the new dentates for re-enforcement and to help bond the two together. Temporary forms for the new dentates will be erected per design specifications and rebar will be placed for dentate support and strength. None of the repair and replacement activities will penetrate the dam below the concrete apron.

All apron and dentate repairs and replacement will occur using either a roto-hammer and/or a concrete saw. A wet-vac or similar equipment will be used to clean-up and pump out any concrete tailings that are dislodged from the infrastructure.

Concrete debris that is removed from the damaged dentates will be collected and disposed of at an offsite location. At the base of the dam, just below maintenance activities, a silt fence, sand bags/wattles will be placed to catch any concrete debris from entering the Truckee River. The silt fence will be approximately 150 feet long and will allow water passage while stopping sediment from entering the river.

After concrete is used to repair and patch dentates, the concrete will be allowed to cure to the point of developing its full strength, prior to any water contact. Curing time may be up to 27 days, depending on weather conditions. Allowing the concrete to cure prior to any water contact is required to ensure associated concrete chemicals are not released into the Truckee River. After the concrete has cured, stainless steel caps will be placed on the twelve dentates that require them.

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Vehicles and heavy equipment will be staged in designated contractor use areas that are devoid of vegetation and/or exhibit compacted surface material. Three existing locations that are identified for contractor use are currently fenced around the perimeter and used for equipment storage (Figure 5).

All access to the work site will be from existing established roads that are currently used to access Marble Bluff Dam. Equipment and materials will be transported using existing access routes and staged adjacent to the dam in areas with restricted public entry (Figure 5). Maintenance activities will not obstruct or negatively impact traffic or recreation in the area.

**Timeline:** The implementation window is expected to begin July 2015 through November 2015, depending on fish spawning activities. Actual maintenance activities including mobilizing to the site and demobilizing from the site should take approximately 70 working days and would occur within the July through November window.

**Location:** Marble Bluff Dam, SW1/4 SW1/4 S.15 T23N, R23E M.D.M., Washoe County, Nevada. (Figures 1 and 2)

**Evaluation of Criteria for Categorical Exclusion**

1.	This action would have a significant effect on the quality of the human environment. (40 CFR 1502.3).	<input checked="" type="checkbox"/> No <input type="checkbox"/> Uncertain <input type="checkbox"/> Yes
2.	This action would have highly controversial environmental effects or involve unresolved conflicts concerning alternative uses of available resources [NEPA Section 102(2) (E) and 43 CFR 46.215 (c)].	<input checked="" type="checkbox"/> No <input type="checkbox"/> Uncertain <input type="checkbox"/> Yes
3.	This action will have significant impacts on public health or safety (43 CFR 46.215(a)).	<input checked="" type="checkbox"/> No <input type="checkbox"/> Uncertain <input type="checkbox"/> Yes
4.	This action would have significant impacts on such natural resources and unique geographical characteristics as historic or cultural resources; parks, recreation and refuge lands; wilderness areas; wild or scenic rivers; national natural landmarks; sole or principle drinking water aquifers; prime farmlands; wetlands (E.O. 11990); floodplains (E.O. 11988); national monuments; migratory birds; and other ecologically significant or critical areas (43 CFR 46.215 (b)).	<input checked="" type="checkbox"/> No <input type="checkbox"/> Uncertain <input type="checkbox"/> Yes
5.	The action would have highly uncertain and potentially significant environmental effects or involve unique or unknown environmental risk (43 CFR 46.215 (d)).	<input checked="" type="checkbox"/> No <input type="checkbox"/> Uncertain <input type="checkbox"/> Yes

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6. This action would establish a precedent for future actions or represent a decision in principle about future actions with potentially significant environmental effects (43 CFR 46.215 (e)).	<input checked="" type="checkbox"/> No <input type="checkbox"/> Uncertain <input type="checkbox"/> Yes
7. This action would have a direct relationship to other actions with individually insignificant but cumulatively significant environmental effects (43 CFR 46.215 (f)).	<input checked="" type="checkbox"/> No <input type="checkbox"/> Uncertain <input type="checkbox"/> Yes
8. This action would have significant impacts on properties listed, or eligible for listing, on the National Register of Historic Places as determined by the bureau (in coordination with a Reclamation cultural resources professional, RM LND 02-01 D(1)(a)) (43 CFR 46.215 (g)).	<input checked="" type="checkbox"/> No <input type="checkbox"/> Uncertain <input type="checkbox"/> Yes
9. This action would have significant impacts on species listed, or proposed to be listed, on the List of Endangered or Threatened Species, or have significant impacts on designated Critical Habitat for these species (43 CFR 46.215 (h)).	<input checked="" type="checkbox"/> No <input type="checkbox"/> Uncertain <input type="checkbox"/> Yes
10. This action would violate a Federal, State, local, or tribal law or requirement imposed for protection of the environment (43 CFR 46.215 (i)).	<input checked="" type="checkbox"/> No <input type="checkbox"/> Uncertain <input type="checkbox"/> Yes
11. This action would affect ITAs (to be completed by Reclamation official responsible for ITAs) (512 DM 2, Policy Memorandum dated December 15, 1993).	<input checked="" type="checkbox"/> No <input type="checkbox"/> Uncertain <input type="checkbox"/> Yes
12. This action would have a disproportionately high and adverse effect on low income or minority populations (E.O. 12898) (43 CFR 46.215 (j)).	<input checked="" type="checkbox"/> No <input type="checkbox"/> Uncertain <input type="checkbox"/> Yes
13. This action would limit access to and ceremonial use of Indian sacred sites on Federal lands by Indian religious practitioners or significantly adversely affect the physical integrity of such sacred sites (E.O. 13007, 43 CFR 46.215 (k), and 512 DM 3).	<input checked="" type="checkbox"/> No <input type="checkbox"/> Uncertain <input type="checkbox"/> Yes
14. This action would contribute to the introduction, continued existence, or spread of noxious weeds or non-native invasive species known to occur in the area or actions that may promote the introduction, growth, or expansion of the range of such species (Federal Noxious Weed Control Act, E.O. 13112, and 43 CFR 46.215 (l)).	<input checked="" type="checkbox"/> No <input type="checkbox"/> Uncertain <input type="checkbox"/> Yes

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**NEPA Action Recommended:**      Categorical Exclusion       EA       EIS

**Environmental commitments, explanation, and/or remarks:**

See the attached correspondence from the Mid-Pacific Region Cultural Resources Division regarding concurrence with Item 8 (cultural resources), and from Patricia Rivera regarding Item 13 (Indian Trust Assets).

Reclamation concludes that a Biological Evaluation, Under Section 7 of the Endangered Species Act, is not required for this action. Reclamation determines that this Federal action would have no effect on Threatened or Endangered species.

Fish species that inhabit the Truckee River and Pyramid Lake include the Threatened *Oncorhynchus clarkii henshawi*, Lahontan cutthroat trout and the Endangered *Chasmistes cujus*, Cui-ui.

All maintenance activities will be conducted outside of the fish spawning season, February through July. The time period to conduct maintenance activities will depend on the water year and will be coordinated with the Lahontan National Fish Hatchery Complex (LNFHC).

River habitat conditions including water flows, temperature, and turbidity will remain at normal levels throughout implementation of the proposed action.

The fishway entrance channel will not be obstructed by project activities in any way and will be available for limited operation at all times. If flows exceed safety maximums for the work site, Reclamation may pass limited flows (up to 50 cfs) through the fish channel during maintenance activities but all remaining flows will be temporarily diverted around the areas being repaired while remaining in the main channel of the Truckee River and subsequently into Pyramid Lake.

Due to the mitigation measures outlined for this project, including working outside of the fish spawning season, there will be no adverse impact to threatened or endangered fish species.

During maintenance activities, all straw wattles and straw bales will be certified weed seed free. To prevent the spread of invasive species, heavy equipment will be power washed before entering the maintenance site. All temporary coffer dams will be completely removed after maintenance occurs and the site will be restored to the original condition.

This project is exempt from obtaining a Section 404 permit pursuant to Section 404 of the Clean Water Act (33 USC 1344) and Federal Regulations (33 CFR 323.4(a)(2)), because certain discharges for maintenance, including emergency reconstruction of recently damaged parts, of currently serviceable structures such as dikes, dams, levees, groins, riprap, breakwaters, causeways, bridge abutments or approaches, and transportation structures, have been exempted from requiring a Section 404 permit according to the Maintenance Exemption Summary, United States Army Corps of Engineers.

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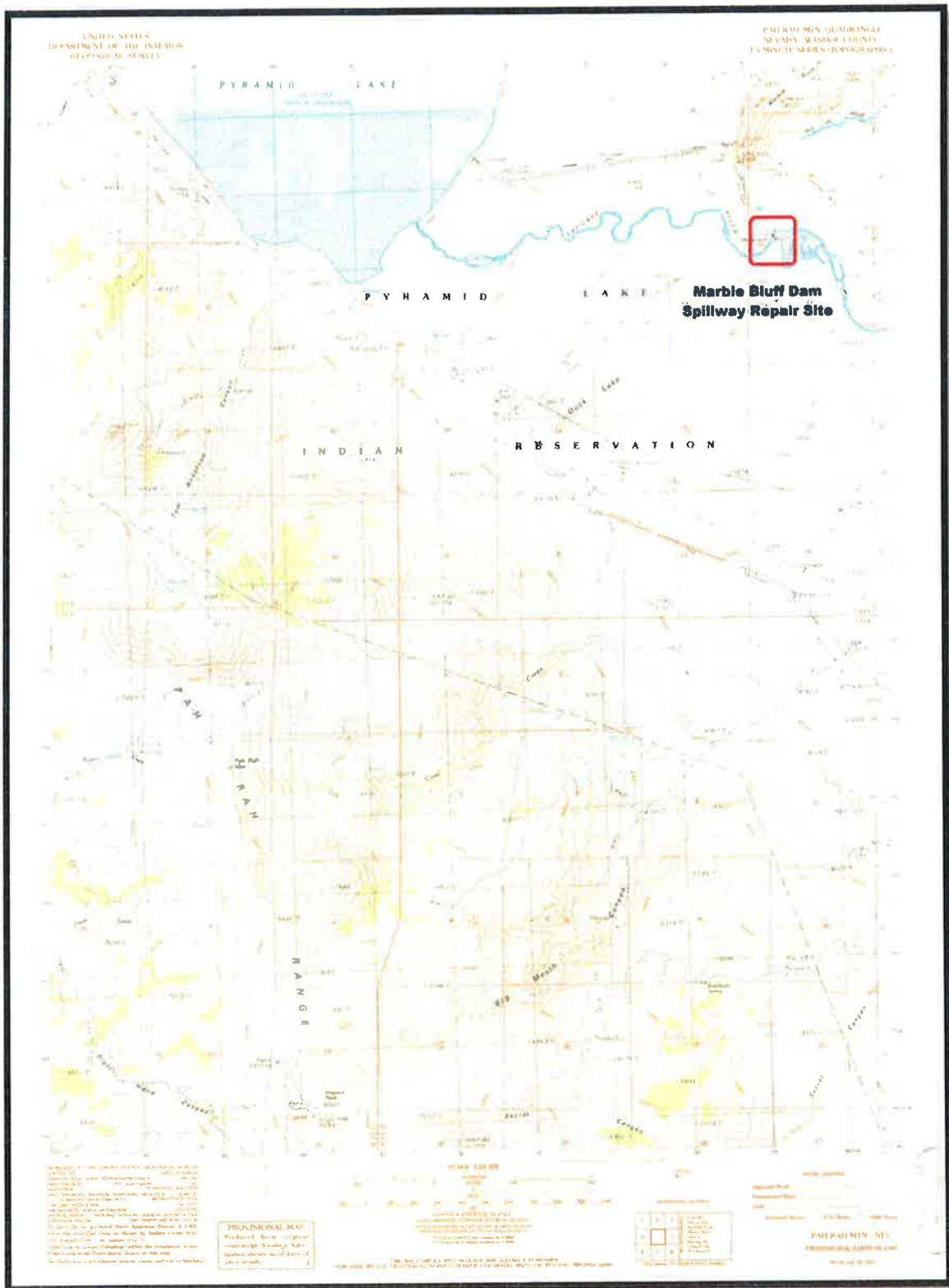
This project is exempt from obtaining a Section 401 Water Quality Certification from the Pyramid Lake Paiute Tribe pursuant to Section 401 of the Clean Water Act, because it is exempted from obtaining a federally issued Section 404 permit according to the Maintenance Exemption Summary.

This project is exempt from obtaining a Section 402 National Pollutant Discharge Elimination System (NPDES) permit of the Clean Water Act, because project activities will not result in the disturbance of more than 1 acre of land.

The proposed action will have *No Effect* to the American Bald Eagle. Under the Bald and Golden Eagle Protection Act and the Migratory Bird Treaty Act, no review or consultation by the USFSW is required.



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**Figure 1 – Pah Rah Mtns, USGS 7.5 min Topo**

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WASHOE PROJECT: MARBLE BLUFF DAM

Spillway Repair Site  
LO-2012-1014

Figure 2

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705 N. Plaza Street, Carson City, NV 89701



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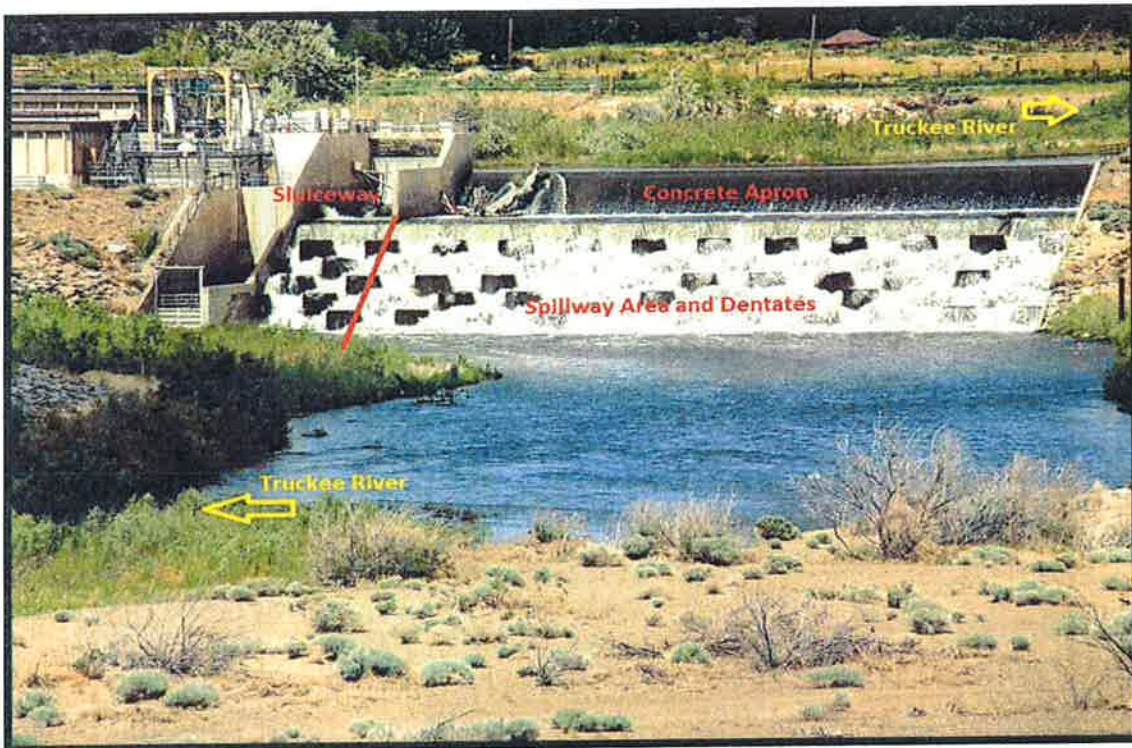


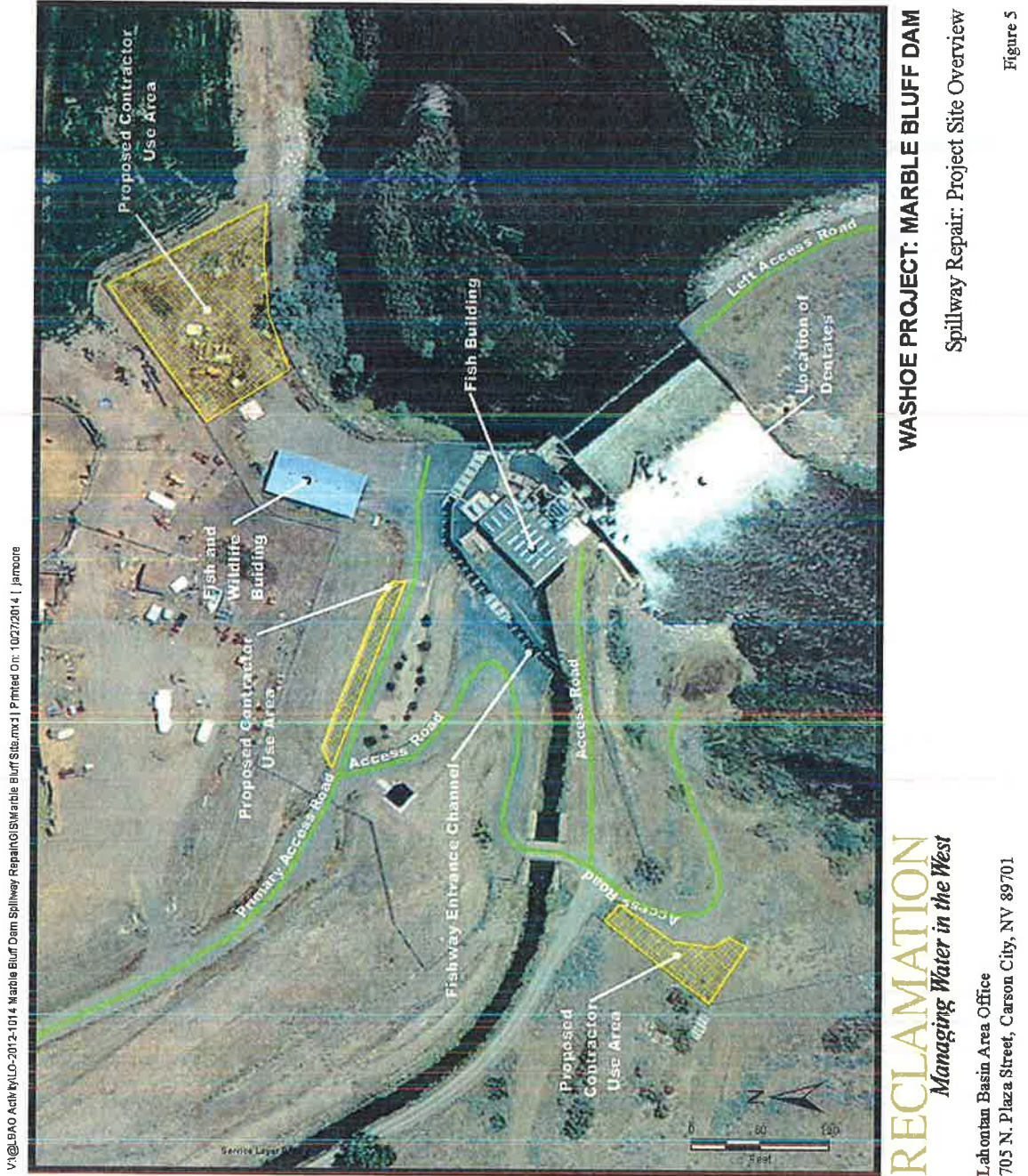
Figure 3 – View of Marble Bluff Dam



Figure 4 – Vegetation accumulation on Marble Bluff Dam



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**WASHOE PROJECT: MARBLE BLUFF DAM**

Spillway Repair: Project Site Overview

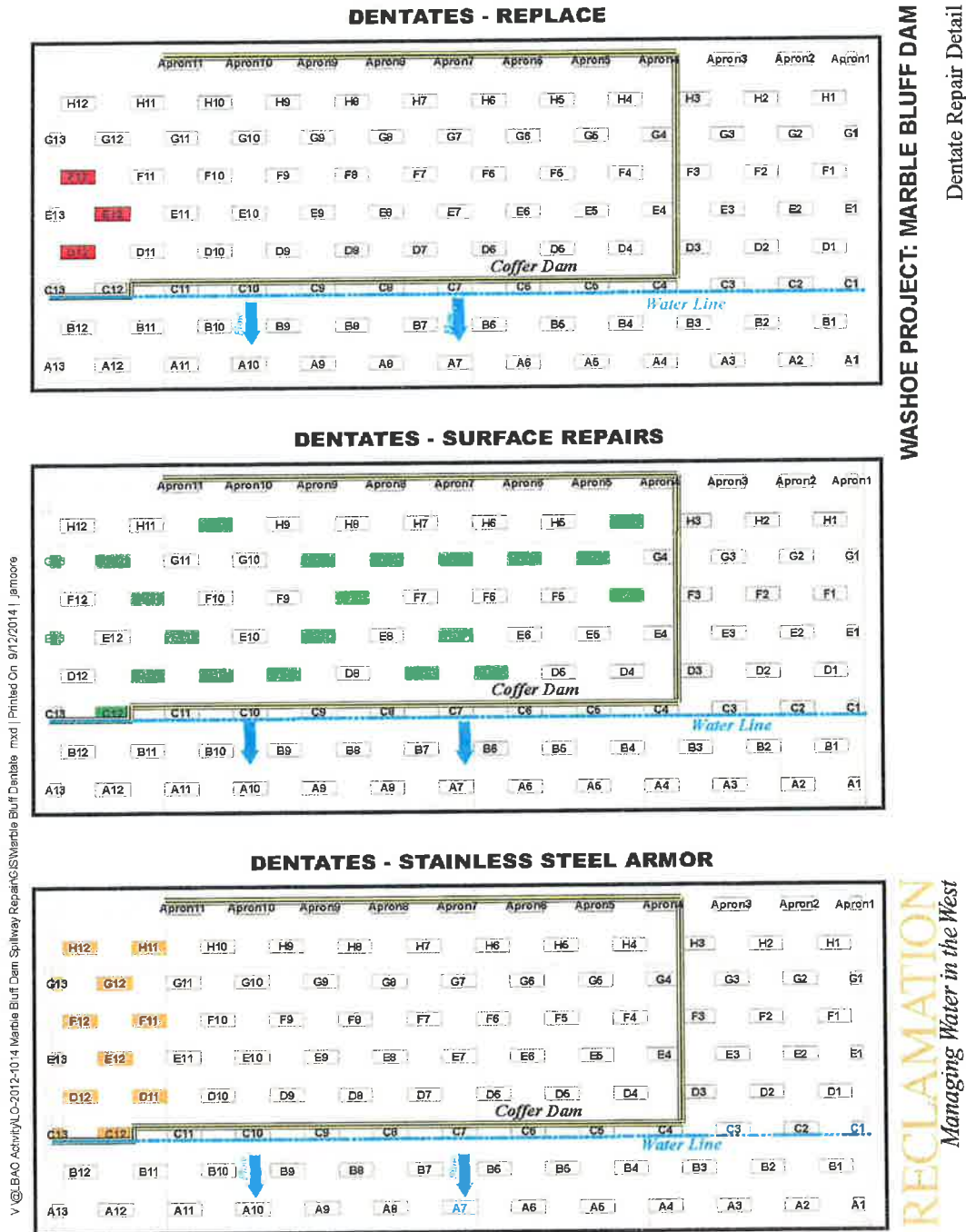
Figure 5

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**Figure 5 – Project Site Overview**

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**WASHOE PROJECT: MARBLE BLUFF DAM**  
Dentate Repair Detail

Figure 6

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Figure 6 – Dentates Requiring Repair and Cofferdam Locations



**CULTURAL RESOURCES COMPLIANCE**  
**Division of Environmental Affairs**  
**Cultural Resources Branch (MP-153)**

**MP-153 Tracking Number:** 14-LBAO-273

**Project Name:** Marble Bluff Dam Spillway Repairs Project, Pyramid Lake Paiute Tribe (PLPT) Reservation, Washoe County, Nevada

**NEPA Document:** CEC LO-2012-1014

**NEPA Contact:** Julia Long and Roberta Tassej, Natural Resource Specialist

**MP 153 Cultural Resources Reviewer:** Scott Williams, Archaeologist 

**Date:** April 3, 2015

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Reclamation proposes to provide funding for maintenance, rehabilitation, and replacement of existing facilities at Marble Bluff Dam, a Reclamation facility located on the PLPT Reservation, Washoe County, Nevada. This action constitutes an undertaking with the potential to cause effects to historic properties, assuming such properties are present, requiring compliance with Section 106 of the National Historic Preservation Act (NHPA) as amended.

Based on historic properties identification efforts conducted by Bruce and Williams (2015), and in-house background research, Reclamation consulted with, and received concurrence from, the Pyramid Lake Paiute (PLP) Tribal Historic Preservation Officer (THPO) on a finding of no historic properties affected pursuant to 36 CFR §800.4(d)(1). Consultation correspondence between Reclamation and the PLT THPO has been provided with this cultural resources compliance document for inclusion in the administrative record for this action. The APE as consulted on is attached.

This document serves as notification that Section 106 compliance has been completed for this undertaking, excluding the stipulation outlined in the attached PLT THPO letter. The PLT THPO would like the specific contractual language describing the terms and conditions of the contact that stipulates that the contract employees are to remain on the project site during work hours and to leave once the workday is complete. Please note that if project activities subsequently change, additional NHPA Section 106 review, including further consultation with the PLT THPO may be required.

**Attachments:**

Project APE Map

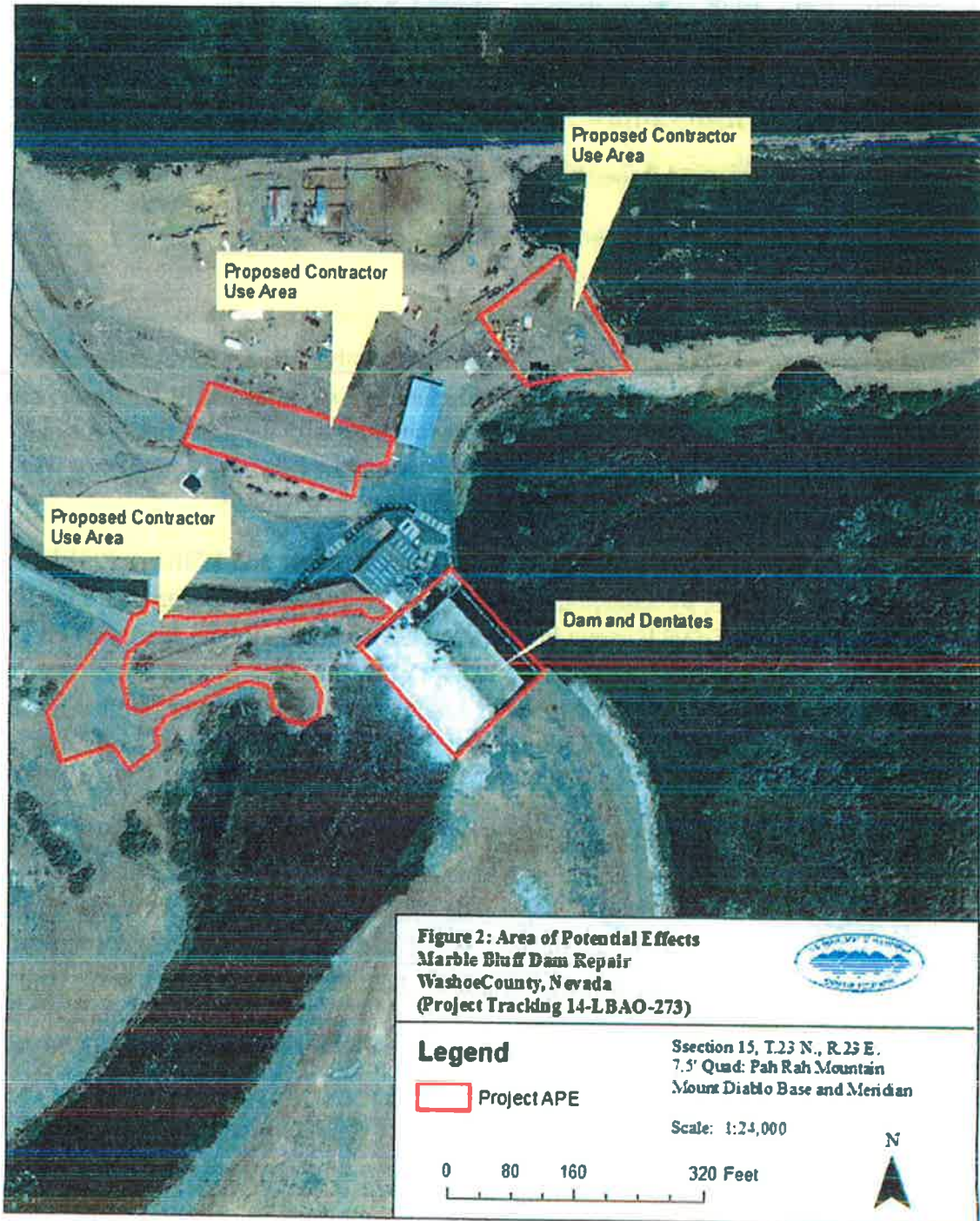
Letter: Reclamation to SHPO dated March 04, 2015

Letter: SHPO to Reclamation dated March 25, 2015



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*Managing Water in the West*







Long, Julia &lt;jlong@usbr.gov&gt;

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## Re: ITA Request LO-2012-1014

1 message

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**RIVERA, PATRICIA** <privera@usbr.gov> Thu, Aug 21, 2014 at 11:08 AM  
To: Julia Long <jlong@usbr.gov>

Julia,

I reviewed the proposed action described below and determined that the proposed action does not have a potential impact to Indian Trust Assets. The proposed project is to within the Pyramid Lake Reservation boundaries. Close coordination with the Pyramid Lake Tribe be conducted throughout the project.

Background:

Construction of Marble Bluff Dam was completed in 1975. The dam was built to prevent upstream river channel head cutting which was encroaching on the town of Nixon, Nevada. Additionally, to allow for fish passage, the dam allows for diversion of water down the Pyramid Lake Fishway.

The design of the dam is unique in nature and was constructed with concrete dentates that are 4 feet 10 inches high, projecting upward from the concrete apron. The purpose of the dentates is to dissipate water velocity as it spills over the dam and enters the river.

Significant erosion and damage was encountered on the Marble Bluff Dam sluiceway and spillway during an inspection that occurred December 2009. This inspection identified the need to repair erosion and

damage that is occurring on the concrete dentates and spillway apron. Erosion is occurring due to continued water and debris flow over the concrete dentates and spillway apron.

#### The Proposed Action:

Replace three dentates that are completely or partially missing within the sluiceway area.

Repair surface concrete on twenty-two dentates within the sluiceway and spillway areas.

Add detachable stainless steel armor on twelve dentates within the sluiceway area.

Repair approximately 375 square feet of concrete on the apron.

Inspect inoperable drains and repair as needed.

Large woody debris that has accumulated on the dentates will be removed and will be deposited at an upland location.

Dentates will be repaired and/or replaced in the sluiceway area (downstream of radial gates) and on the spillway during a 4–5 month period, outside of the fish spawning period. To control water flow during maintenance activities, three temporary coffer dams will be placed on the concrete spillway apron. One coffer dam will be placed above the top row of the dentates, extending across the spillway in a northeast direction, the secondary coffer dam will be positioned between dentates in a northwest direction, and the third coffer dam will extend northeast across the base of the spillway, over the bottom row of sediment covered dentates which are located within the river channel. The temporary coffer dams will re-direct water away from the

work area to ensure a safe work environment.

The three coffer dams will consist of one or more of the following: sand bags, plywood, plastic bladders, or concrete K-rails, depending upon contractor preference and coffer dam effectiveness. The coffer dams may require anchoring into the concrete dam but will not be anchored into the embankment adjacent to the dam.

During ongoing maintenance activities, heavy equipment such as a crane and/or small skid steer will be positioned on the concrete hardened surface adjacent to the dam, on the embankment, and/or on the concrete apron located on top of the dam. To mitigate possible fluid leaks from mechanical equipment failure, drip diapers will be placed under the equipment when it is positioned on the concrete apron.

The existing concrete apron is 1.5 feet thick. During concrete apron repairs, 375 square feet of area exhibiting damage will be repaired. A depth of approximately 1–2 inches from the concrete apron surface will be saw-cut and removed then roughened or scarified to prepare the surface for placement of new concrete. During the repair of the twenty-two dentates, a depth of approximately 1–2 inches of concrete will be saw-cut and removed from the upstream face of the dentate and from the damaged areas of the apron on the upstream side of the dentates. The area will then be roughened and cleaned in preparation for placing new concrete. The three dentates in need of replacement will require removing the entire dentate as well as 2 inches of concrete just into the existing concrete apron. Removing 2 inches of concrete and roughening or scarifying the concrete down into the apron will create a better bond for the new concrete. Epoxy coated rebar will be embedded into the existing apron and the new dentates for re-enforcement and to help bond the two together. Temporary forms for the new dentates will be erected per design specifications and rebar

will be placed for dentate support and strength. None of the repair and replacement activities will penetrate the dam below the concrete apron.

All apron and dentate repairs and replacement will occur using either a roto-hammer and/or a concrete saw. A wet-vac or similar equipment will be used to clean-up and pump out any concrete tailings that are dislodged from infrastructure.

Concrete debris that is removed from the damaged dentates will be collected and disposed of at an offsite location. At the base of the dam, just below maintenance activities, a silt fence, sand bags/wattles will be placed to catch any concrete debris from entering the Truckee River. The silt fence will be approximately 150 feet long and will allow water passage while stopping sediment from entering the river.

After concrete is used to repair and patch dentates, the concrete will be allowed to cure to the point of developing its full strength, prior to any water contact. Curing time may be up to 27 days, depending on weather conditions. Allowing the concrete to cure prior to any water contact is required to ensure associated concrete chemicals are not released into the Truckee River. After the concrete has cured, stainless steel caps will be placed on the twelve dentates that require them.

Vehicles and heavy equipment will be staged in designated contractor use areas that are devoid of vegetation and/or exhibit compacted surface material. Three existing locations that are identified for contractor use are currently fenced around the perimeter and used for equipment storage.

All access to the work site will be from existing established roads

8/21/2014

DEPARTMENT OF THE INTERIOR Mail - Re: ITA Request LO-2012-1014

that are currently used to access Marble Bluff Dam. Maintenance activities will not obstruct or negatively impact traffic or recreation in the area.

Patricia Rivera  
Native American Affairs Program Manager  
US Bureau of Reclamation  
Mid-Pacific Region  
2800 Sacramento, California 95825  
(916) 978-5194

