May 17, 2013

Kenneth Parr
U.S. Bureau of Reclamation
705 N. Plaza Street, Room 320
Carson City, NV 89701

ORDER NO. R6T-2013-0040, CLEAN WATER ACT SECTION 401 WATER QUALITY CERTIFICATION AND 100-YEAR FLOODPLAIN WASTE DISCHARGE PROHIBITION EXEMPTION FOR THE STAMPEDE DAM SAFETY OF DAMS MODIFICATION PROJECT, SIERRA COUNTY, WDID 6A461203002

The California Regional Water Quality Control Board, Lahontan Region (Water Board) has received a complete Clean Water Act Section 401 Water Quality Certification (WQC) application, information to support granting an exemption from a waste discharge prohibition in the Water Board's *Water Quality Control Plan for the Lahontan Region* (Basin Plan) and application filing fee for the Stampede Dam Safety of Dams Modification Project (Project) in Sierra County. This Order for WQC hereby assigns this Project the following reference number: Waste Discharger Identification (WDID) No. 6A461203002. Please use this reference number in all future correspondence regarding this Project.

Any person aggrieved by this action of the Water Board may petition the State Water Resources Control Board (State Water Board) to review the action in accordance with Water Code section 13320 and California Code of Regulations, title 23, sections 2050 and following. The State Water Board must receive the petition by 5:00 p.m., 30 days after the date of this Order, except that if the thirtieth day following the date of this Order falls on a Saturday, Sunday, or state holiday, the petition must be received by the State Water Board by 5:00 p.m. on the next business day. Copies of the law and regulations applicable to filing petitions may be found on the Internet at: http://www.waterboards.ca.gov/public_notices/petitions/water_quality or will be provided upon request.

PROJECT DESCRIPTION

Table of Project Information:

WDID Number	6A461203002
Applicant	Kenneth Parr U.S. Bureau of Reclamation 705 N. Plaza Street, Room 320 Carson City, NV 89701
Agent	Locke Hahne U.S. Bureau of Reclamation 705 N. Plaza St., Room 320 Carson City, NV 89701

Table of Project Information continued:

<table>
<tr><td>Project County</td><td>Sierra</td></tr>
<tr><td>Project Type</td><td>Dam modification Project</td></tr>
<tr><td>Project Address or other Locating Information</td><td>North of Truckee route as follows: From Truckee, go east on I-80, take Herschdale Exit off of I-80. Proceed north on Stampede Meadows Road for 8 miles, then west on Dog Valley Road for one mile to the Stampede Dam.</td></tr>
<tr><td>Location Latitude/Longitude</td><td>Latitude: 39.4727 Longitude: 120.1053</td></tr>
<tr><td>Hydrologic Unit(s)</td><td>LTR Hydrologic Unit, 636.00</td></tr>
<tr><td>Project Area</td><td>80 acres</td></tr>
<tr><td>Receiving Water(s) Name</td><td>LTR and minor surface waters, wetlands</td></tr>
<tr><td>Water Body Type(s)</td><td>Reservoir, perennial river, seasonal wetland, ephemeral drainage</td></tr>
<tr><td>Designated Beneficial Uses</td><td>MUN, AGR, GWR, FRSH, NAV, REC-1, REC-2, COMM, COLD, WILD, BIOL, RARE, MIGR, SPWN, WQE, FLD</td></tr>
<tr><td>Potential Water Quality Impacts</td><td>Discharge of materials into Stampede Reservoir, LTR and other waters from construction Project.</td></tr>
<tr><td>Area of Water(s) of the U.S. (WOUS) within the Project area</td><td>10,000 linear feet of reservoir and 0.78 acre of wetland</td></tr>
<tr><td>Project Impacts (Fill) to Waters of the State, including Waters of the U.S. (WOUS)</td><td>
<table>
<tr><th rowspan="2">Waterbody Type</th><th colspan="3">Permanent</th><th colspan="3">Temporary</th></tr>
<tr><th>Acres / Sq. Ft.</th><th>Linear Feet</th><th>Cubic Yards</th><th>Acres / Sq. Ft.</th><th>Linear Feet</th><th>Cubic Yards</th></tr>
<tr><td>Lake</td><td></td><td></td><td></td><td>5.84 ac</td><td>10,310'</td><td>18,480 cy</td></tr>
<tr><td>Riparian</td><td></td><td></td><td></td><td></td><td></td><td></td></tr>
<tr><td>Stream</td><td></td><td></td><td></td><td></td><td></td><td></td></tr>
<tr><td>Wetland</td><td>0.245 ac</td><td>73'</td><td>545 cy</td><td></td><td></td><td></td></tr>
</table>
</td></tr>
<tr><td>Federal Permit(s)</td><td>The Applicant has applied for U.S. Army Corps of Engineers (USACOE) authorization to proceed under a Letter of Permission, pursuant to Clean Water Act section 404.</td></tr>
<tr><td>Non-Compensatory Mitigation</td><td>Best Management Practices (BMPs) will be employed on the site at all times, and throughout construction. Fill from temporary work for the east saddle dike haul route will be removed and the areas recontoured. A geomembrane fabric will be on the upstream slope of the cofferdam to prevent soil erosion into the reservoir.</td></tr>
<tr><td>Compensatory Mitigation</td><td>The Wetland Mitigation and Monitoring Plan dated November 2012 proposes to create a minimum of 1.0 acre of wet meadow to replace the 0.245 acres of seasonal wetlands associated with the East Saddle Dike. The mitigation will be located between the primary borrow area and the perennial stream to the south. Material will be excavated from the reservoir and offsets fill.</td></tr>
<tr><td>Applicable Fees</td><td>$26,725.00 ($944 application fee plus $25,781 for 2,731 linear feet of temporary impacts at $9.44 per linear feet of impact plus $994 for 0.245 acre of permanent impacts at $4,059 per acre of impact)</td></tr>
<tr><td>Fees Received</td><td>$26,725</td></tr>
</table>

CEQA COMPLIANCE

On February 14, 2013, the Water Board provided notice of intent to adopt a mitigated negative declaration (SCH No. 2013022046) for the Project. (Cal. Code Regs., tit. 14, section 15072.) The Mitigated Negative Declaration/Initial Study (MND/IS) reflects the Water Board's independent judgment and analysis. After considering the document and comments received during the public review process, the Water Board hereby determines that the proposed Project, with mitigation measures, will not have a significant effect on the environment. The MND/IS is hereby certified. The documents or other material which constitute the record are located at the Water Board office in South Lake Tahoe. The Water Board will file a Notice of Determination at the State Clearinghouse within five days from the issuance of this Order.

WATER QUALITY CONTROL PLAN WASTE DISCHARGE PROHIBITION

The Water Board has adopted a *Water Quality Control Plan for the Lahontan Region* (Basin Plan), which specifies the following discharge prohibition:

> "4.(c) The discharge or threatened discharge, attributable to human activities, of solid or liquid waste materials including soil, silt, clay, sand, and other organic or earthen materials to lands within the 100-year floodplain of the Little Truckee River or any tributary to the Little Truckee River is prohibited."

The proposed Project would violate the prohibition as it involves disturbance within the 100-year floodplain of the LTR. The Water Board may grant an exception to the above-cited prohibition under certain conditions.

PROHIBITION EXEMPTION

The Basin Plan allows exemptions to the above-cited discharge prohibition for the repair and replacement of existing structures provided that (1) the repair or replacement does not involve the loss of additional floodplain area or volume, (2) all applicable Best Management Practices (BMPs) are employed, and (3) mitigation measures have been incorporated into the Project to minimize any potential soil erosion and/or surface runoff problems. The Project involves repairing hydrologic safety deficiencies at Stampede Dam by raising the existing dam and dike elevation by 11.5 feet (from 5974 feet to 5985.5 feet) and constructing two earthen saddle dikes at topographical low spots on the south rim of the reservoir. The dam's current elevation would be unable to safely pass floodwaters ranging between a 75,000 and a 250,000-year flood event and poses an unacceptable risk according to the Bureau of Reclamation's Dam Safety Public Protection Guidelines. The spillway's elevation will continue to be 5952.7 feet and reservoir water will continue to be discharged at a maximum discharge rate of 3,000 cubic feet per second. In a 250,000-year flood event, the reservoir would return to its normal operating elevation of 5946.1 feet in approximately 15 days.

The Project would have the following impacts (temporary and permanent) within the 100-year floodplain.

Permanent Impacts within 100-year floodplain inclusive of Waters of the US (WOUS)

Project Feature	**Description (** indicates 100-yr. floodplain only)**	**Size (acres)**	**Linear feet**	**Quantity, cubic yards (cy)**
MSE Wall on Dam and Dike	**Excavated material from the primary borrow area, recycled material from the dam and dike crest excavation stockpiled at the vista area, MSE wall segments (concrete slabs), rebar, and asphalt for road paving across the MSE wall	2.78	2,700	68,000 (fill)
Primary Borrow Area	**Excavation in primary borrow area for wetland mitigation	1.95 along LTR	1,110	68,000 (excavation)
East Saddle Dike	Borrow material hauled from the in-reservoir borrow area for the east and west saddle dikes	0.245 wetland (with integral floodplain)		545 (fill)
Saddle dike borrow areas	**Excavation of borrow material contoured to provide an even surface after material is removed	1.5		15,700 (excavation)
Debris boom anchor	Pre-cast concrete and rebar anchors purchased by the contractor and installed onsite	<0.01		< 5 (fill)
Total (net)		**6.975**	**3,810**	**15,150 excavation**

Temporary Impacts within 100-year floodplain (inclusive of WOUS)

Project Feature	**Description (** indicates 100-yr. floodplain only)**	**Size (acres)**	**Linear feet**	**Quantity, cubic yards (cy)**
Saddle Dike Haul Routes	Bladed material redistributed from the road and material obtained from the borrow areas to level existing dirt road	0.3 at reservoir 0.045 drainage	2,200 of reservoir; 109 feet drainage	400 (fill)
Saddle Dike Haul Routes	** Bladed material redistributed from the road and material obtained from the borrow areas to level existing dirt road		500 reservoir shore above OHW	
Boat Ramp Road Realignment	Bladed material redistributed from the road shoulders; existing culverts will remain in place and will not be resized or elongated	0.077 intermittent drainage	312 drainage	10 (fill)

Project Feature	Description (source and type)	Size (acres)	Linear feet	Quantity (cy)
Spillway cofferdam	Fill dirt from primary borrow area	0.24 in WOUS	110 in WOUS	19,000 (fill)
Spillway cofferdam	**same as above	0.1 in floodplain		
Optional Haul Route 4	**Redistributed soil material from grading to make road passable up dam face	0.7	1,200	25 (fill)
Optional Haul Route 5	**Bladed material redistributed to grade roadway; gravel and culverts (likely HDPE) imported to improve existing roadbed below dam	0.34 along LTR	500 of floodplain	25 (fill to both WOUS and floodplain)
Optional Haul Route 5 (WOUS)	Temporary fill (gravel and culverts) imported to improve existing roadbed below the dam and to cross the seep wetlands	0.022 of wetland (WOUS)		
Power Plant Access Road	** Temporary fill to expand the road; all fill will be placed outside WOUS.	1.3 along LTR		
Administrative Staging Area	** Vegetation clearing and the redistribution of soil materials to contour the site	0.05 floodplain along LTR		
Total		**3.129**	**3,122**	**19,460 fill**

1. *The Project involves the repair and replacement of existing structures, and does not involve the loss of additional floodplain area or volume.*

   The proposed Project is a repair and replacement project to modify the existing dam and dike by elevating it 11.5 feet for the purpose of flood control. The Project does not involve the loss of additional floodplain area or volume as explained below for each of the Project components. The reservoir capacity at the existing dam crest elevation 5974.0 feet is 305,313 acre-feet of water. At the new maximum reservoir water surface elevation 5981.5 feet, the Project will provide an additional 32,000 acre-feet of temporary flood storage within an expanded in-reservoir floodplain area.

   Permanent Impacts – Dam and Dike
   Based on Federal Emergency Management Agency's Flood Insurance Rate Map, Stampede Dam is within the 100-year floodplain up its crest structure and down the eastern portion of the dam connected to the toe drain ditch. The permanent fill added to the top of the dam and dike (68,000 cy), which is within the 100-year floodplain, will eliminate the floodplain area currently overtopping the dam and running down the eastern part of the dam to the toe drain ditch. However, this is not valuable floodplain and in fact would cause severe damage downstream if the dam were to overtop. The area and volume of floodplain removed at the top of the dam and down the dam's east side will be mitigated by the temporary increase in

floodplain area and volume throughout the reservoir's rim during periods of flooding. Also, the area and volume of fill associated with the 11.5 vertical feet of dam and dike height will be mitigated by removing fill excavated from the primary borrow area adjacent to the perennial creek south of the primary borrow area ("toe drain ditch") to produce an area for the wetland mitigation. The mitigation will also achieve a net increase in floodplain area (1.5 acre) and volume (15,700 cubic yards) of a tributary to the LTR. Therefore, the placement of fill on top of the dam and dike to raise their levels will not involve the loss of additional floodplain area or volume.

Permanent Impacts – Debris Boom Anchor

A debris boom is a proposed repair to deflect debris away from the existing spillway crest structure during a flood event and prevent water overtopping the dam during a flood. The floats of the boom would support a system of screens similar to chain-link fencing that would extend below the water surface to defect debris away from the spillway during large flood events. Large structural anchors embedded in concrete would hold the boom in place. The permanent concrete anchors must be at approximately the same elevation that the reservoir would fill to at the Probable Maximum Flood to effectively deflect debris. If the debris boom anchors were below this line, debris may go over the boom making it ineffective. Because the floodplain extends to the crest of Stampede Dam, there is no reasonable way to place the debris boom anchors outside of the floodplain and have the boom function. The debris boom anchors, which will take up less than 0.01 acre of area and less than 5 cubic yards of fill material, are minor floodplain area and volume effects relative to the scope of the Project. Therefore, this component does not involve the loss of additional floodplain area or volume.

Permanent Impacts – East and West Saddle Dikes

The west saddle dike is approximately 220 feet long, 32 feet wide and 4 feet high; the east saddle dike is approximately 480 feet long, 80 feet wide and 11.5 feet high. Both west and east saddle dikes are located outside of the 100-year floodplain of the reservoir, although the east saddle dike will be placed over a wetland associated with a drainage that has its own floodplain. The borrow areas, staging areas, and haul routes for the saddle dikes are, however, partially located in the 100-year floodplain of the reservoir. (The haul routes and staging areas will have only temporary impacts so are discussed below.) The saddle dike borrow area was selected because of suitable material, short distance to the construction site, absence of vegetation from reservoir fluctuations and recreational activities, and minimal vegetation clearing and revegetation required to obtain the borrow material. The removal of material from the sparsely vegetated ring of the reservoir will actually increase floodplain area and volume by removal of earthen material within the floodplain. Placement of fill for the east saddle dike and diverting the drainage from 11% of the watershed upstream of the proposed dike to the Russell Valley will involve a minor loss of floodplain at the fill site (only). However, the loss is balanced by the gain discussed above and because the drainage to the reservoir will be rerouted to the LTR. Therefore, the construction of the east and west saddle dikes does not involve the loss of additional floodplain area or volume.

Temporary Impacts – Saddle Dike Haul Routes and Staging Areas
The staging area for the west saddle dike and the haul routes for both the east and west saddle dikes are located within the 100-year floodplain of Stampede Reservoir and were chosen due to their pre-existing disturbed condition, presence of existing dirt access roads, and directness to the work areas. The in-reservoir haul route between the two saddle dike borrow areas is currently used by recreational vehicles and cyclists and provides a route from the Boat Ramp Road to the west saddle dike. This in-reservoir haul route between the two saddle dikes and borrow areas avoids the extensive removal of mature trees and vegetation and grading that would otherwise be required south of the west saddle dike to complete a loop to Dog Valley Road. The haul route and staging areas lack woody vegetation and have poor herbaceous cover because it is within the normal fluctuation zone of the reservoir. The temporary impacts related to the staging areas and haul routes do not involve the loss of additional floodplain area or volume.

Temporary Impacts – Boat Ramp Road Realignment
Constructing the East Saddle Dike would require realigning a segment of the Captain Roberts Boat Ramp road where it intersects Dog Valley Road to accommodate construction of the east saddle dike. The new section of road will temporarily disturb 0.032 acres (203 linear feet) of intermittent drainage, which is connected to the wetlands that will be permanently impacted for the dike, to create a new road crossing. The temporary impacts related to the boat ramp road realignment do not involve the loss of additional floodplain area or volume, as the area will be restored following use.

Temporary Impacts – Spillway Cofferdam
A temporary cofferdam located upstream of the spillway crest structure will be constructed prior to the start of the demolition of the existing spillway crest structure to protect the contractors during construction. It will be used for one construction season and will be removed by October 31. In order to start preparing the foundation of the temporary cofferdam, some riprap in the vicinity of the spillway will be removed. The cofferdam will be constructed by placing soils in continuous layers not to exceed 12-inch thickness to the top of the existing dam crest elevation of 5974.0 feet. Each lift will be mechanically compacted. Approximately 16,000 cubic yards of material to construct the cofferdam will come from the primary borrow area. The temporary impacts related to the spillway cofferdam do not involve the loss of additional floodplain area or volume due to their temporary nature.

Temporary Impacts – Haul Routes from Primary Borrow Area
The primary borrow area is a 10.5-acre area located below the dam. The area was previously used for disposal of overburden during original construction of the dam. An estimated 69,000 cubic yards of earthfill material from the primary borrow area will be excavated and processed for use in constructing the MSE and embankment crest raise. Some material would also be used in construction of the temporary cofferdam at the spillway. Temporary haul roads will be used to transport the material to the dam crest. Two haul routes will be constructed up the downstream face of the dam approximately two hundred feet northeast of the spillway stilling

basin. These routes (haul routes 3 and 4) will be the most direct route from the borrow area to the dam crest. Another haul route originates at the base of the dam near the toe drain outlets and travels up north of the perennial drainage until intersecting Stampede Meadows Road. The third route will be the powerplant access road (see directly below), which may be temporarily widened during construction to two lanes to accommodate large truck traffic. This road would be returned to its existing configuration following construction. Contract specifications will not allow placement of fill within identified WOUS, including wetlands, along the powerplant access road. The access road is constrained on both sides by riverine wetlands along the LTR and the hill slope to the east. Some of all of these haul routes are within the area mapped by FEMA as Flood Zone A, although this map is disputed by the Applicant. The temporary impacts related to the haul routes from the primary borrow area do not involve the loss of additional floodplain area or volume as the area will be restored once the Project is completed.

Temporary Impacts – Power Plant Access Road
There is 1480 linear feet of powerplant access road within the FEMA-delineated 100-year floodplain. The powerplant access road is approximately 25 feet wide. The area of the powerplant access road within this 100-year floodplain is 0.85 acres. The powerplant access road may require additional road base material (gravel) to function as a haul route from the primary borrow area to the dam. The Applicant will restore temporary construction roads to original contours at the end of construction. Restoration would involve the removal of road base material used beyond that already in place to facilitate heavy equipment travel along the powerplant access road. Wetlands and the LTR will be avoided along this haul route. Due to the temporary nature of the impacts, this component is not expected to involve the loss of additional floodplain area or volume.

Temporary Impacts – Administrative Staging Area
Up to 6.7 acres adjacent to Stampede Dam, the main dike, and the intervening area may be used during construction as temporary contractor staging and stockpiling areas. The primary borrow area may also be used as a temporary staging and stockpiling area. Trees and other vegetation may need to be removed in these areas to provide workspace for construction operations. The area north of the intersection of the powerplant road and Stampede Meadows Road is proposed as a one-acre administrative staging area for contractor use during construction. A small section in the northwest corner of this area is considered by FEMA to be within the 100-year floodplain. Due to the minimal amount of area within the floodplain and the temporary nature of the impacts, this component is not expected to involve the loss of additional floodplain area or volume.

2. *The proposed discharger must demonstrate that all applicable BMPs are employed.*

The Applicant has provided a Revegetation Plan and Wetland Mitigation Plan. In addition to implementing the Revegetation Plan for the Project, the pollution prevention measures proposed by the Applicant to avoid discharging sediments to the reservoir and the LTR below Stampede Dam include the following:

- Stormwater runoff originating on upslope areas will be diverted away from disturbed areas. Runoff on bare ground will be dispersed to reduce concentrated flows that might deliver fine sediment to water sources.
- Existing vegetation will be preserved where feasible; mulch or hydroseed will be applied to areas until permanent stabilization is established; and soil binders, geotextiles and mats, velocity dissipation devices, slope drains, or polyacrylamide (a soil conditioner) will be used to protect soil from erosion.
- Excavated or other construction materials will not be stockpiled or deposited near or on stream banks or reservoir shorelines where they can be washed away by high water or storm runoff, or can in any way encroach upon the watercourse. Receiving waters will be protected from stockpile areas using temporary erosion and sediment control measures.
- Wastewater from general construction activities will be prevented from entering flowing or dry watercourses without the use of approved turbidity control methods.
- Topsoil will be removed, stockpiled, and replaced as a medium for revegetation.
- The construction site will be stabilized and paved roads swept to minimize sediment runoff from entering waterways.
- Stockpiled materials will be covered to prevent wind and rain erosion if they are not for immediate use. Most borrow material will be direct hauled and not stockpiled.

The Applicant has submitted a Notice of Intent for coverage under the State-wide Construction General Storm Water Permit and will implement a Storm Water Pollution Prevention Plan to minimize impacts to water quality that will further describe all BMPs for the Project, their location, and inspection, monitoring and maintenance requirements. Erosion control BMPs such as the use of mulches, installation of water bars or sandbags, seeding or hydroseeding to prevent detachment of soil will be described. Water bars are small diversion structures across a road or trail to remove or disperse surface runoff in a manner that adequately protects soil resources and limits sediment transportation. Sediment control measures may include silt fences, fiber rolls certified as weed-free, sediment traps, treatment tank systems, and other sediment filters as needed to protect waters, drainages and wetlands. Silt fencing, if used, will be trenched and keyed in to maximize effectiveness. Proper implementation of erosion and sediment controls will be adequate to minimize sediment discharge into drainage courses or waterbodies until vegetation regrowth occurs. Disturbed areas will either be regraded and revegetated prior to winter between construction seasons or BMPs will be installed and maintained during work shut-down periods, pending final restoration efforts. A visual monitoring program will be implemented and a rain-event action plan developed for the site to meet Risk Level 2 requirements. Post-construction BMPs will be used as needed to detain, retain, or filter the release of pollutants to receiving waters after final stabilization is attained. The Applicant has provided a list of BMPs for each component of the Project.

3. *Mitigation measures have been incorporated into the Project to minimize any potential soil erosion and/or surface runoff problems.*

In addition to the above BMPs, the following mitigation measures will be followed to minimize potential soil erosion and/or surface runoff problems:

Dam and Dike Raise: The crest raise section would be limited to a 30-foot width and extend a total length of approximately 3,600 feet across the dam, dike, and the intervening section between the dam and the dike. The asphalt surface material and safety guardrail on this segment of the Dog Valley Road would be removed, along with approximately five feet of earthfill material overlaying the core of the dam and dike. Excavated earthen materials will be removed and stockpiled at the Vista Point Area for reuse. Concrete leveling pads will be constructed along the edges of the 30-foot wide trench. The MSE wall will be constructed with either concrete modular blocks or precast concrete panels. To stabilize the wall, soil reinforcement will be installed between the wall units. The foundation of the wall will encompass concrete leveling pads and a subsurface drainage system to collect and convey seepage and limit the build-up of pore pressures as well as prevent internal erosion. Earthfill material from the primary borrow area and reused earthfill material from the dam and dike excavation will be placed and compacted between the wall units. After the MSE wall is constructed, stormwater runoff on the new segment of Dog Valley Road, on top of the MSE wall, will be handled with drain inlets and overside drains. Runoff from this segment of the Dog Valley Road would continue to be dispersed across the existing embankment.

Haul routes and staging areas: The haul routes and staging areas will be decommissioned by scarifying the surface and hydroseeding. Areas where trees and chaparral habitat were disturbed will be reforested except on water control facilities (e.g., on or at the toe of the dam and dike). Revegetation efforts would follow the Revegetation Plan for the Project, developed in coordination with the Forest Service. Erosion control grass species including California brome (*Bromus carinatus*), varileaf phacelia (*Phacelia heterophylla*), Sandberg bluegrass (*Poa secunda*), blue wildrye (*Elymus glaucus*), squirreltail (*Elymus elymoides*), slender wheatgrass (*Deschampsia elongata*), western aster (*Aster occidentalis*), wooly sunflower (*Eriophyllum lanatum*), meadow barely (*Hordeum brachyantherum*), and Sulfur flower buckwheat (*Eriogonum umbellatum*), will be used to hydroseed areas along haul routes 3 and 4 (if used) since woody vegetation is not permitted on Reclamation facilities. Haul route 5, if used, will be revegetated with chaparral species and trees in addition to seeding.

Spillway Cofferdam: A geomembrane fabric will be used on the reservoir side of the cofferdam to prevent soil erosion into the reservoir. Slope stabilization measures, including fiber rolls and silt fences, will be applied to steep slopes on either side of earthen slopes of the spillway inlet. The cofferdam will be constructed and removed in one construction season window (April-1 to October-31) during the time the existing spillway crest structure is demolished and reconstructed. If water is present at the spillway and temporary cofferdam area, it would be discharged to land according to requirements of the Construction General Permit and/or conditions in this WQC. The discharge of water from these areas to Stampede Reservoir would

not occur unless treatment tank systems were utilized as allowed under the provisions of the Construction General Permit. Using these systems, a large volume of silty water can be pumped through settling and filtration tanks efficiently.

Saddle Dikes and Saddle Dike Borrow Areas: Riprap slope protection will be provided on the upstream slope of the dikes to protect the embankments from wave action during extreme flood events.

DELEGATION AUTHORITY FOR GRANTING AN EXEMPTION

In Resolution No. R6T-2008-0031, the Water Board delegated authority to the Lahontan Water Board Executive Officer to grant exemptions to the 100-year floodplain discharge prohibition in the Little Truckee River Hydrologic Unit for discharges associated with repair and replacement of existing structures to be regulated under the terms and conditions of a WQC Order.

PROHIBITION EXEMPTION GRANTED

The Water Board has notified the Project proponent and interested agencies and persons of its intent to adopt this prohibition exemption through a public notice (including internet publication). The Water Board has considered all comments and determined that the Project satisfies the exemption criteria listed above. The Water Board has delegated authority to the Executive Officer to grant exemptions to the prohibition. As described above, the Project meets the exemption criteria listed in the Basin Plan and will be regulated under a WQC Order. I hereby grant an exemption to the above-stated Basin Plan prohibition for the Project.

SECTION 401 WATER QUALITY CERTIFICATION

Authority

Section 401 of the CWA (33 U.S.C., paragraph 1341) requires that any Applicant for a CWA Section 404 permit, who plans to conduct any activity that may result in discharge of dredged or fill materials to WOUS, must provide to the permitting agency a certification that the discharge will be in compliance with applicable water quality standards of the state in which the discharge will originate. No Section 404 permit may be granted (or valid) until such certification is obtained. The Bureau of Reclamation (Applicant) submitted a complete application and the fees required for WQC under Section 401 for the Stampede Dam Safety of Dams Modification Project. The Applicant has applied for USACOE authorization to proceed under a Letter of Permission pursuant to CWA section 404.

California Code of Regulations (CCR) title 23, section 3831(e) grants the Water Board Executive Officer the authority to grant or deny WQC for projects in accordance with CWA section 401. The Stampede Dam Safety of Dams Modification Project qualifies for such WQC.

Standard Conditions

Pursuant to CCR title 23, section 3860, the following standard conditions are requirements of this certification:

1. This certification action is subject to modification or revocation upon administrative or judicial review, including review and amendment pursuant to California Water Code Section 13330 and CCR title 23, section 3867.

2. This certification action is not intended and must not be construed to apply to any discharge from any activity involving a hydroelectric facility requiring a Federal Energy Regulatory Commission (FERC) license unless the pertinent certification application was filed pursuant to CCR title 23, section 3855(b) and the application specifically identified that a FERC license or amendment to a FERC license for a hydroelectric facility was being sought.

3. The validity of any non-denial certification action must be conditioned upon total payment of the full fee required under CCR title 23, section 3833, unless otherwise stated in writing by the certifying agency.

4. Neither Project construction activities nor operation of the Project may cause a violation of the Water Quality Control Plan for the Lahontan Region (Basin Plan), may cause a condition or threatened condition of pollution or nuisance, or cause any other violation of the California Water Code.

5. The Project must be constructed and operated in accordance with the Project described in the application for WQC that was submitted to the Water Board. Deviation from the Project description constitutes a violation of the conditions upon which the certification was granted. Any significant changes to this Project that would have a significant or material effect on the findings, conclusions, or conditions of this certification, including Project operation, must be submitted to the Executive Officer for prior review and written approval.

6. This WQC is subject to the acquisition of all local, regional, state, and federal permits and approvals as required by law. Failure to meet any conditions contained herein or any conditions contained in any other permit or approval issued by the State of California or any subdivision thereof may result in the revocation of this Certification and/or civil or criminal liability.

7. The Water Board may add to or modify the conditions of this certification as appropriate to implement any new or revised water quality standards and implementation plans adopted or approved pursuant to the Porter-Cologne Water Quality Control Act or Section 303 of the Clean Water Act, or as appropriate to coordinate the operations of this Project with other projects where coordination of operations is reasonably necessary to achieve water quality standards or protect the beneficial uses of water. Notwithstanding any more specific conditions in this certification, the Project must be constructed and operated in a manner

consistent with all water quality standards and implementation plans adopted or approved pursuant to the Porter-Cologne Water Quality Control Act or Section 303 of the Clean Water Act.

8. This certification does not authorize any act which results in the taking of a threatened or endangered species or any act which is now prohibited, or becomes prohibited in the future, under the California Endangered Species Act (California Fish and Wildlife Code section 2050 et seq.) or the federal Endangered Species Act (16 U.S.C. sections 1531 et seq.). If a "take" will result from any act authorized under this certification, the Applicant must obtain authorization for the take prior to construction or operation of the Project. The Applicant is responsible for meeting all applicable requirements of the Endangered Species Act for the Project authorized under this certification.

Additional Conditions

Pursuant to CCR title 23, section 3859(a), the following additional conditions are requirements of this certification:

1. The Applicant must comply with all conditions of Project approval included in the Mitigated Negative Declaration and Initial Study Checklist, and monitoring and reporting summarized and specified in the *Mitigation Monitoring and Reporting Schedule for the Stampede Dam Safety of Dams Modification Project*, enclosed, which is hereby made part of this WQC Order.

2. The Applicant must implement the *Stampede Dam Safety of Dams Modification Wetland Mitigation and Monitoring Plan* dated November 2012 by **October 15, 2014**. An initial report of construction must be provided by **October 31, 2014**. The report following initial construction must include an "as built" plan and must describe any problems encountered or variances from the approved design. The report must also include photographs showing the sites before and after construction. Annual reports are due on the first day of January in 2016, 2017, 2018, 2019, and 2020, and must include complete monitoring findings and an evaluation of the success in restoring water quality, floodplain function and biological resources relative to the wet meadow creation and must indicate whether performance criteria in the Mitigation and Monitoring Plan have been met. The Applicant must provide a functional one-acre wetland by **October 31, 2019**.

3. Restoration of temporary disturbances and temporary discharges of fill to waters of the state must be achieved **within six months** of completing work in the area of the temporary impact. Initial restoration must include implementing measures to fully restore conditions to support all beneficial uses for the waterbody temporarily impacted in the shortest feasible time. Restoration for impacts to WOUS must include, but is not limited to, grading to pre-project contours and revegetation with native species. The Applicant must implement Best Management Practices (BMPs) to control erosion and runoff from areas associated with temporary fills.

4. A qualified professional with experience in hydrology and wetland restoration must monitor the construction and implementation of the Wetland Mitigation and Monitoring Plan. Any additional work or variation from the described work which may result in additional or increased impacts to waters of the state (including quantity or quality of water or habitat) is not authorized unless approved in writing by the Executive Officer prior to implementation.

5. Hazardous materials must not be stored within 100 feet from receiving waters. Refueling and vehicle maintenance must be performed at least 100 feet from receiving waters.

6. Proposed Project features located within the ordinary high water mark of the reservoir must only be used when water levels are low enough to expose the borrow sites, and construction can occur with unsaturated soil conditions. These areas must be stabilized with construction BMPs and restored prior to the return of high water conditions, if possible, or protected from erosion and wash out by waves or flooding.

7. The introduction or spread of invasive and noxious weeds during implementation of the Project must be minimized by using weed-free products to contain sediments, weed-free seed stocks, and washing vehicles that transit through areas where there are known populations of invasive plants. All areas disturbed by construction activities must be regularly monitored for weeds, and the Reclamation contractor must apply appropriate treatment as needed until contract completion. Post-construction monitoring and treatment of noxious or invasive weeds must be done in coordination with the Forest Service.

8. Placement of fill within identified WOUS including wetlands, along the powerplant access road is prohibited.

9. Wetland areas near Project and staging areas that, according to the Project application, will be avoided must be protected by colored construction fencing or equivalent barriers.

10. All surface waters, including reservoir waters, must be diverted away or isolated from areas undergoing grading, construction, excavation, vegetation removal, and/or any other activity which may result in a discharge to the receiving water. Depending on reservoir water levels, if surface water diversions are anticipated (e.g., spillway coffer dam), the Applicant must develop and submit a **Surface Water Diversion and Sampling Plan** to this Water Board. The plan must include the proposed method and duration of diversion activities, erosion and sediment controls, and a map or drawing indicating the locations of diversion and discharge points. The plan must be submitted prior to any surface water diversion. If surface water is present at the diversion, then visual and water sampling monitoring for turbidity must be conducted on a daily basis during normal work days until the in-water work is complete. Hand-held field turbidity meters accurate to the nearest nephelometric turbidity unit and maintained and calibrated in accordance with

manufacturer's specifications is acceptable. Results of the analyses must be submitted to this Water Board **by the 15th day of each subsequent month**. A map or drawing indicating the locations of sampling points must be included with each submittal and must include comparison sites unaffected by potential discharges. Diversion activities must not result in the degradation of water quality for beneficial uses, or exceedance of water quality objectives for the receiving waters. Any such violations may result in corrective and/or enforcement actions, including increased monitoring and sample collection.

11. New soil disturbance to conduct Project activities (other than erosion control) between November 1 and May 1 is prohibited.

12. The Applicant must provide materials necessary to prevent water degradation on site, and must ensure that all pollutant source controls and soil stabilization procedures are in place and effective prior to any rainfall event and/or prior to winter shutdown, that will remain effective through the event or winter shutdown period.

13. Fueling, lubrication, maintenance, operation, and storage of vehicles and equipment must not result in a discharge or a threatened discharge to waters of the state. The Applicant must not use any vehicle or equipment which leaks any substance that may impact water quality. Staging, maintenance and storage areas for vehicles and equipment must be located outside of waters of the state. Construction equipment must be monitored for leaks, and removed from service if necessary to protect water quality.

14. No debris, cement, concrete (or wash water therefrom), oil or petroleum products must enter into or be placed where it may be washed from the Project site by rainfall or runoff into waters of the state. When operations are completed, any excess material must be removed from the Project work area, and from any areas adjacent to the work area where such material may be transported into waters of the state.

15. The Applicant must immediately (within two hours) notify Water Board staff by telephone whenever an adverse condition occurs as a result of this discharge. Such a condition includes, but is not limited to, a violation of the conditions of this Order, a significant spill of petroleum products or toxic chemicals, or damage to control facilities that would cause noncompliance. A written notification of the adverse condition must be provided to the Water Board within one week of occurrence. The written notification must identify the adverse condition, describe the actions taken or necessary to remedy the condition, and specify a timetable, subject to any modifications by Water Board staff, for the remedial actions.

16. The Applicant must permit Water Board staff or its authorized representative upon presentation of credentials:

    a) Entry onto Project premises, including all areas on which wetland fill or wetland mitigation is located or in which records are kept.
    b) Access to copy any records required to be kept under the terms and conditions of this Order.
    c) Inspection of any treatment equipment, monitoring equipment, or monitoring method required by this Order.
    d) Sampling of any discharge or surface water covered by this Order.

17. The Applicant must prevent discharge of any foreign materials to the lake water from implementation of this Project, including the discharge of welding metals during the welding process.

Enforcement

1. In the event of any violation or threatened violation of the conditions of this certification, the violation or threatened violation must be subject to any remedies, penalties, process or sanctions as provided for under state law. For purposes of Clean Water Act section 401(d), the applicability of any state law authorizing remedies, penalties, process or sanctions for the violation or threatened violation constitutes a limitation necessary to assure compliance with the water quality standards and other pertinent requirements incorporated into this certification.

2. In response to a suspected violation of any condition of this certification, the State Water Board or the Water Board may require the holder of any permit or license subject to this certification to furnish, under penalty of perjury, any technical or monitoring report the State Water Board or Water Board deems appropriate, provided that the burden, including costs, of the reports must be a reasonable relationship to the need for the reports and the benefits to be obtained from the reports.

3. In response to any violation of the conditions of this certification, the Water Board may add to or modify the conditions of this certification as appropriate to ensure compliance.

Section 401 Water Quality Certification Requirements Granted

I hereby issue an order certifying that any discharge from the referenced Project will comply with the applicable provisions of Clean Water Act sections 301 (Effluent Limitations), 302 (Water Quality Related Effluent Limitations), 303 (Water Quality Standards and Implementation Plans), 306 (National Standards of Performance), and 307 (Toxic and Pretreatment Effluent Standards), and with other applicable requirements of state law. This discharge is also regulated under State Water

Resources Control Board Order No. 2003-0017-DWQ, "General Waste Discharge Requirements for Dredge and Fill Discharges That Have Received State Water Quality Certification" which requires compliance with all conditions of this WQC.

Except insofar as may be modified by any preceding conditions, all WQC certification actions are contingent on (a) the discharge being limited and all proposed mitigation being completed in strict compliance with the Applicant's Project description and the terms specified in this WQC order, and (b) compliance with all applicable requirements of the Basin Plan.

We look forward to working with you in your efforts to protect water quality. If you have questions, please contact Tobi Tyler, Water Resources Control Engineer, at (530) 542-5435, or Alan Miller, P.E., Chief, North Basin Regulatory Unit, at (530) 542-5430.

Patty Z Kouyoumdjian

PATTY Z. KOUYOUMDJIAN
EXECUTIVE OFFICER

Enclosure: 1) Mitigation Monitoring and Reporting Schedule for the Stampede Dam Safety of Dams Modification Project

cc: Andrea Meier, US Bureau of Reclamation
Brandon Pangman, Sierra County
Jason Brush, Wetlands Regulatory Office (WTR-8), US EPA, Region 9
(via email at R9-WTR8-Mailbox@epa.gov)
Krystel Bell, U.S. Army Corps of Engineers, Reno Office
Bill Orme, State Water Resources Control Board, Division of Water Quality
(via email at Stateboard401@waterboards.ca.gov)

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[File: Stampede Dam Safety of Dams Modification Project / WDID 6A461203002]

Mitigation Monitoring and Reporting Schedule for the Stampede Dam Safety of Dams Modification Project

This schedule sets forth a program for monitoring and reporting on implementation of mitigation measures required as a condition of project approval to reduce potentially significant effects of the project to levels of insignificance. In most cases, what is required is timely reporting by Reclamation or it's contractors or agents (referred to collectively as Reclamation) on the implementation of mitigation measures described in the Initial Study Checklist. In other cases, monitoring of the mitigation measures is required, including during or following completion of construction. For example, the creation and establishment of wetlands requires monitoring for five years or until sustained success is verified by periodic reports as set forth in the WQC Order. The WQC Order requires implementation of the mitigation measures identified in the Initial Study Checklist as a condition of WQC, and the Water Board may at any time enforce the conditions of the WQC Order as needed. However, in some cases, compliance with other Orders or requirements of the Water Boards or another agency is included in the mitigation measure, such as compliance with the State Water Board's Construction General Permit or County encroachment permits. In that case, reporting will be required where needed to demonstrate that the appropriate permit or other approval has been obtained by Reclamation from the Responsible Agency. Thereafter, the Responsible Agency is charged to ensure its requirements are implemented, and no further reporting to the Water Board by Reclamation may be required, except as may be required under the separate approval until such requirement is revoked. As a case in point, the State Water Board's Construction General Permit and the Lahontan Water Board's 2009 Timber Waiver set forth independent and fully enforceable requirements and conditions, respectively, overseen by the Lahontan Water Board including monitoring and reporting requirements to be met. Duplicate reporting for such requirements is not intended or required herein after the Water Board has verified such approval. In other cases, the WQC Order sets forth specific conditions and requirements for monitoring and technical reports associated with mitigation requirements, e.g., for wetland establishment, in addition to requirements set forth below.

The requirements tabulated below are abbreviated with reference to the Initial Study Checklist, and requirements described in the Initial Study Checklist supersede in the event of conflict. Some requirements may overlap in space and/or time, such as timber harvesting under the 2009 Timber Waiver and construction under the Construction General Permit, and cover a variety of mitigation requirements. All applicable monitoring and reporting requirements of the Water Board must be met as determined by the Water Board. To avoid duplicating requirements herein, the table will refer to the regulatory document(s) where the requirements are established. For instance, Section 401 WQC Order requirements overlap with the regulatory authority of the USACOE, e.g., for actions under section 404, but may be enforced independently by the Water Board. Therefore, while the USACOE is a primary permitting authority for wetlands under section 404, the Water Board may enact conditions upon those permits and requirements that it certifies under section 401 are in compliance with State laws.

All conditions of project approval must be met and reports described herein must be provided by Reclamation to the Water Board pursuant to California Code of Regulations title 23 section 3860 and/or Water Code section 13267 unless requirements are modified in writing by the Water Board. The reports are needed to verify compliance and are reasonable in light of overall

project costs. Mitigation measure implementation is required to be conducted as described in the Initial Study Checklist, and documented in writing, and an Annual Implementation Monitoring Report must be provided by October 31 of each year until the Water Board rescinds the requirements in writing.

No	Enforceable Regulatory Document for Mitigation Measure	CEQA Re-spon-sible Agency	Date or Time when Mitigation is Required	Due date for Report(s) Required by Water Board	Impact Less Than Significant With Mitigation Incorporated (abbr.)	Mitigation Requirement(s) (abbr.)	Contents of Report(s) Required by Water Board
1	WQC Order	Forest Service	Following completion of Mechanically Stabilized Earth (MSE) wall across the dam and dike.	October 31, 2015	I Aesthetics (a): (pg.8) Temporary loss of vista area.	Reclamation will work with the Forest Service to develop and implement a restoration plan for the vista area that will replace the circle drive, parking spaces, and vault toilet in-kind. The restoration plan will also involve seeding and planting of chaparral species and Jeffrey pines.	*Scenic Restoration Plan,* accepted by the Forest Service, to meet mitigation requirement.
2	WQC Order	Forest Service	Following completion of Mechanically Stabilized Earth (MSE) wall across the dam and dike.	October 31, 2013	I Aesthetics (b): (pg. 8, 9) Damage to scenic resource: removal of 1,400 trees and chaparral habitat.	Reclamation will implement the Revegetation Plan which calls for reforestation efforts where tree removal has occurred and planting chaparral shrubs, seeding and mulching where such habitat has been cleared for staging and construction.	*Revegetation Plan*, accepted by the Forest Service, for revegetating areas impacted by loss of trees and chaparral habitat.
3	WQC Order	Forest Service, Sierra County, Nevada County	Prior to road closure for construction.	October 15, 2013	I Aesthetics (c): (pg. 8, 9) Damage to scenic resource: Road dust effects on recreational and emergency travel.	Reclamation will provide a chip seal road surface along the Dog Valley Road detour route for minimizing dust impacts to recreational and emergency vehicle travel.	Report on the road installed as accepted by Sierra County and Nevada County, to meet mitigation requirement.

4	WQC Order	Lahontan Water Board	Throughout project.	October 31, each year	I Aesthetics (d): (pg. 9) Source of substantial light or glare adversely affecting day or nighttime views	Direct stationary floodlights to shine downward at angle less than horizontal; shield floodlights to avoid nuisance; direct lighting to avoid campground areas; and correct lighting control problems when they occur.	Annual report with written results of inspections conducted monthly, at a minimum, and related actions.
5	*Dust and Emission Control Plan*, accepted by Northern Sierra Air Quality Management District (NSAQMD)	NSAQMD	Prior to use of heavy equipment for timber harvesting or construction.	October 31, 2013	III Air Quality (a): (pg. 10, 11) Conflict with or obstruct implementation of the applicable air quality plan due to temporary emissions of dust and vehicle combustion pollutants from earthmoving, material processing, engine emissions.	A Dust and Emission Control Plan, developed and implemented by Reclamation or its contractor, must reduce emissions to below NSAQMD's threshold levels for PM10 and O3, including ROG and NOx and meet the Air Resources Board's diesel fleet emission standards for off-road and on-road vehicles, including using newer trucks and installing filters to reduce these emissions by 25 percent or more.	*Dust and Emission Control Plan*, accepted by NSAQMD.
6	*Dust and Emission Control Plan*, accepted by NSAQMD.	NSAQMD	Prior to use of heavy equipment for timber harvesting or construction.	October 31, 2013	III Air Quality (b): (pg. 11, 12) Violate any air quality standard.	Develop and implement a Dust and Emission Control Plan that includes dust abatement activities (e.g., use of water to suppress fugitive dust) to minimize PM10 emissions to below Level C thresholds in the NSAQMD plan. Plan to include measures to reduce NOx emissions by complying with CARB's diesel regulations and consultation with NSAQMD.	*Dust and Emission Control Plan*, accepted by NSAQMD.
7	*Dust and Emission Control Plan*, accepted by NSAQMD.	NSAQMD	Prior to use of heavy equipment for timber harvesting or construction.	October 31, 2013	III Air Quality (c): (pg. 11) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under applicable federal or state ambient air quality standards.	Same as III Air Quality (b).	*Dust and Emission Control Plan*, accepted by NSAQMD.

8	1) WQC Order 2) WQC Order	U.S. Fish and Wildlife Service (USFWS), Forest Service, and Lahontan Water Board	1) Through-out imple-mentation of project and 2) following completion of Mechanically Stabilized Earth (MSE) wall across the dam and dike.	1) October 31, 2013 2) Monitoring Reports due 1st of Jan., 2016, 2017, 2018, 2019, 2020.	IV Biological Resources (a): (pg. 12-14) 1) Bald Eagle nesting pair disruption during critical period between January and late May. 2) Up to 0.3 acres of suitable habitat for a number of plant species will be affected by the proposed project.	1) Reclamation will develop and implement a Bald Eagle Monitoring Plan to resolve unforeseen conflicts during construction hauling activities. If adverse effects are observed during monitoring, the biological monitor shall immediately notify the Contracting Officer Representative (COR) and the USFWS contact, who will impose a speed limit reduction in the affected section of the Dog Valley Road. 2) Reclamation will create approximately 1-acre of wet meadow habitat on-site that will serve as suitable habitat for sensitive plant species for which coordination with Forest Service is provided.	*1) Bald Eagle Monitoring Plan Report* accepted by the USFWS *2) Wetland Mitigation Monitoring Report* accepted by: Forest Service for sensitive plant list; and USACOE for wetland mitigation and monitoring plan.
9	WQC Order	Forest Service, Lahontan Water Board	Following completion of Mechanically Stabilized Earth (MSE) wall across the dam and dike.	October 31, 2013	IV Biological Resources (b): (pg. 14) Loss of 1,400 trees and chaparral habitat.	Following construction, all upland areas will be revegetated to the degree that site conditions allow. Post-construction monitoring, coordination with the Forest Service and adaptive management will be used to identify changing needs and meet the desired future conditions of re-establishing native plant communities and to reduce the spread of noxious weeds.	*Revegetation Plan*, accepted by the Forest Service, for revegetating areas impacted by loss of trees and chaparral habitat.

10	1) CWA section 404 letter of permission 2) WQC Order	1) U.S. Army Corps of Engineers 2) Lahontan Water Board	Prior to ceasing construction and project completion.	October 31, 2013	IV Biological Resources (c): (pg.14-15) Substantial adverse effect on federally protected wetlands (Section 404 of CWA) from loss of 0.245 acre of seasonal wetland at the east saddle dike and temporary impacts to 0.022 acres of seep wetlands and 0.077 acres (312') of drainage for the east saddle dike borrow area.	Reclamation will compensate for the loss of wetlands through construction of a one-acre wet meadow in the primary borrow area. Implementation of the Wetland Mitigation Plan will reduce the direct impacts to wetlands to less than significant for the project. Fill from temporary work for haul route 5 and for the east saddle dike haul route will be removed and the areas will be recontoured and revegetated or stabilized from erosion by other means. Other wetlands identified in the project area will be avoided.	*Wetland Mitigation Plan* accepted by U.S. Army Corps of Engineers and Lahontan Water Board
11	WQC Order	Forest Service	Prior to ceasing construction and project completion.	October 31, 2013	IV Biological Resources (d): (pg. 15) Deer passage over the dam may be affected by the proposed project.	In order to facilitate deer passage, Reclamation has incorporated an earthen ramp between the Operations & Maintenance road along the dam and the spillway.	Deer Passage Ramp accepted by Forest Service, incorporated into project design
12	Final *Programmatic Agreement*, *Memorandum of Agreement* between Reclamation, Forest Service, USACE, State Historic Preservation Office (SHPO), and Native American Tribes WQC Order	USACE, Forest Service, SHPO	Prior to demolition or material alteration of a historic resource.	October 31, 2013	V Cultural Resources (a)-(d): (pg. 16-17) There are 26 prehistoric and historic sites that have the potential to be affected by the temporary filling of the reservoir above the existing maximum reservoir water surface due to a catastrophic flood event (there are no sites within the project construction area).	A Programmatic Agreement (PA) will be established between Reclamation, Forest Service, and USACE, in consultation with the California SHPO and Native American Tribes, to fulfill their National Historic Preservation Act (NHPA) Section 106 responsibilities. The PA will address avoidance, minimization, and mitigation measures for unavoidable impacts to historic resources and completing and executing a Historic Properties Treatment Plan.	Final *Programmatic Agreement*, *Memorandum of Agreement* pursuant to 36 CFR § 800.6, *Historic Properties Treatment Plan* accepted by USACE, Forest Service, SHPO

13	2009 Timber Waiver, Construction General Permit, WQC Order	Lahontan Water Board	Prior to soil disturbance associated with timber removal or construction activity disturbing an acre or more land	October 31, 2013	VI Geology and Soils (b): (pg. 17-18) The exposure of soils during and after timber operations and construction will increase the potential for soil erosion and sedimentation. The use of heavy equipment during construction will likely increase soil compaction, potentially increasing surface water runoff and erosion.	Implement erosion control best management practices (BMPs) to eliminate sediment from entering waters in the Little Truckee River watershed as a result of construction activity. Tree removal operations will use equipment that limits compaction of soils to acceptable standards. Implementation of construction and post-construction erosion control BMPs and the Revegetation Plan will reduce the impacts to less than significant. Obtain 2009 Timber Waiver and Construction General Permit.	*Revegetation Plan*, accepted by the Forest Service, for revegetating areas impacted by loss of trees and chaparral habitat. Plan for meeting post-construction storm water requirements of the Construction General Permit.
14	WQC Order	Lahontan Water Board	Prior to importing bulk fuel or hazardous products to the project site	October 31, 2013	VII Hazards and Hazardous Materials (a): (pg. 20-22) Potential discharge of petroleum and other hazardous products (such as herbicides used for invasive plant management) used in construction.	Prepare a Spill Prevention Control and Countermeasure Plan pursuant Section 311 of the Clean Water Act. This Plan will identify petroleum and other hazardous products and address secondary containment of the products, prevention of spills, spill containment and cleanup procedures, and materials on hand to accomplish the containment and cleanup. The identified procedures will minimize the risk of harm to animals or humans from hazardous and toxic materials due to soil or water contamination.	*Spill Prevention Control and Countermeasure Plan* pursuant to Section 311 of the Clean Water Act.
15	WQC Order	Lahontan Water Board	Prior to use of hazardous materials or heavy equipment for timber harvesting or construction.	October 31, 2013	VII Hazards and Hazardous Materials (b): (pg. 22-23) Storage or use of hazardous materials in waterbody buffer zones could create a hazard to the public.	No hazardous materials will be stored or used on the construction site in quantities over those required to be reported by law. Per the project specifications, the contractor will be required to use maintained vehicles to prevent oil spills, gasoline spills, and diesel fuel spills.	Applicable contract specifications implementing mitigation

16	WQC Order	Lahontan Water Board	30 - 45 days prior to Dog Valley Road closure for construction detour (and immed. upon reopening road)	15 days prior to Dog Valley Road closure for construction detour	VII Hazards and Hazardous Materials (g): (pg. 23) The closure of Dog Valley Road could interfere with emergency response plans and emergency responders and may affect emergency response times to incidents such as fires and accidents.	Reclamation will ensure local law enforcement and emergency responders in the area including but not limited to Sierra County, Nevada County, and the Forest Service are notified in writing 30 days in advance of the actual road closure, and without delay following road reopening.	Final executed *Emergency Action Plan.* Copies of written notices issued and issuance dates, or other documented notices provided 30 days in advance of road closures.
17	WQC Order	Forest Service	Upon contractor mobilization at the project site and prior to saw-cutting or other "hot" work	October 31, 2013	VII Hazards and Hazardous Materials (h): (pg. 24) The project could expose people or structures to a significant risk of loss, injury or death involving wildland fires.	In addition to VII (g) above, Reclamation and the project contractor will comply with any fire restriction orders issued by the Forest Service. The project contractor will develop a Fire Prevention Plan and require on-site fire suppression materials.	*Fire Prevention Plan,* accepted by Forest Service, including any Forest Service restriction orders

18	Construction General Permit; 2009 Timber Waiver; WQC Order	Lahontan Water Board, Forest Service (for revegeta-tion surveys)	After initial or unsuccessful reforestation treatments, or as required by Water Board	Annually for three years following the initial reforest-ation treatment, by October 31 of each year	VIII Hydrology and Water Quality (a): (pg. 25-27) Violation of any water quality standards or waste discharge requirements related to suspended sediments and other pollutants associated with timber removal, construction and spills. The Little Truckee River is a tributary to the Truckee River, which is impaired by suspended sediments. The Project has potential to discharge sediment in excess of water quality control requirements established by the State and Lahontan Water Boards.	Reclamation will use pollution prevention and control measures to avoid generating sediments that could enter Stampede Reservoir or the Little Truckee River and will submit and implement a SWPPP to obtain coverage under and comply with the Construction General Permit; submit an application and obtain coverage under the 2009 Timber Waiver; and submit a Spill Prevention and Countermeasure Plan for Water Board acceptance (see above). Revegetation surveys after restoration work will identify any need to develop reforestation treatments. Topsoil from other project activities may be brought in to improve reforestation treatments as needed.	Revegetation survey(s) by registered foresters with recommen-dations for treatments, as needed.

19	WQC Order	Forest Service, Sierra County, Nevada County, Lahontan Water Board	Prior to filling drainage for within east saddle dike area, and three months prior to road improvement	October 31, 2013	VIII Hydrology and Water Quality (c): (pg. 28-29) The project will substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream in a manner which would result in substantial erosion or siltation on- or off-site. Water that currently flows to the reservoir near the east saddle dike will be diverted along Dog Valley Road and become tributary to Dry Creek in Russell Valley.	The watershed remains tributary to the Little Truckee River via Russell Valley. To handle the additional 21 cfs of flow next to Dog Valley Road, Reclamation will widen and rock-line the roadside ditch, and improve existing culverts following Water Board approval of engineered plans. Other impacts in this area will be mitigated by removing temporary fill materials, recontouring reservoir roads to match pre-project land surfaces, and apply erosion controls. Reclamation will place physical access barriers, accepted by the Forest Service, after construction to close the road to the borrow area beyond the Captain Roberts Boat Ramp Road.	*Final Design and Location Hydraulic Study and Floodplain Evaluation Report Summary* for east saddle dike area. Borrow road closure plan acceptable to Forest Service.
20	WQC Order	Forest Service, Sierra County, Nevada County, Lahontan Water Board	Prior to filling drainage for within east saddle dike area, and two months prior to road improvement	October 31, 2013	VIII Hydrology and Water Quality (d): (pg. 29-30) The project may substantially increase the rate or amount of surface runoff in a manner which would result in flooding off-site because the flows that normally will go into the east saddle dike wetland and intermittent drainage tributary to the reservoir will be diverted along Dog Valley Road towards Dry Creek in Russell Valley.	Reclamation will prepare a Design and Location of Hydraulic Study and Floodplain Evaluation Report Summary in accordance with the Caltrans Highway Design Manual – 2012, Chapters 800-890. Drainage improvements will be designed to function to convey flows and withstand erosion such that flooding of the road and erosion due to drainage diversions will not be increased. Rock slope protection or riprap, if used, will be constructed in two or more layers of rock sizes with progressively smaller rock toward native bank to prohibit the loss of soil fines.	*Final Design and Location Hydraulic Study and Floodplain Evaluation Report Summary* for east saddle dike area.

21	WQC Order	Forest Service, Sierra County, Nevada County, Lahontan Water Board	Prior to filling drainage for within east saddle dike area, and two months prior to road improvement	October 31, 2013	VIII Hydrology and Water Quality (e) (pg. 30) The project could contribute runoff water which would exceed the capacity of existing or planned storm water drainage systems by altering drainage at the east saddle and carry pollutants associated with post-project land erosion that would constitute an additional source of polluted runoff.	Reclamation will prepare a Design and Location of Hydraulic Study and Floodplain Evaluation Report Summary in accordance with the Caltrans Highway Design Manual – 2012, Chapters 800-890. Drainage improvements will be designed to function to convey flows and withstand erosion such that flooding of the road and erosion due to drainage diversions will not be increased. Rock slope protection or riprap, if used, will be constructed in two or more layers of rock sizes with progressively smaller rock toward native bank to prohibit the loss of soil fines.	*Final Design and Location Hydraulic Study and Floodplain Evaluation Report Summary* for east saddle dike area.
22	Construction General Permit; WQC Order	Lahontan Water Board	During and following borrow material removal for east saddle dike	October 31, 2013	VIII Hydrology and Water Quality (h): (pg. 30-31) Excavation will occur in the reservoir 100-year floodplain to remove borrow material, and for construction, that would place within a 100-year flood hazard area structures which would temporarily impede or redirect flood flows.	Restoration measures following excavation will include recontouring and grading, planting erosion control grass species for erosion control by revegetation, and installing waterbars across drainage areas originating from upland sites to minimize erosion and sedimentation.	Revegetation Plan for in-reservoir borrow pit to accomplish restoration within 30 days following completion of borrow pit use, or completion of construction, whichever comes first.

23	WQC Order	Forest Service	Throughout project.	October 31, 2013	XI Noise (a): (pg. 32) Noise-sensitive receptors near the dam and reservoir include people using the National Forest and campgrounds for recreational purposes and employees at the Forest Service Stampede Work Center and the Stampede Powerplant.	If night work is required, noise levels measured at the campgrounds will be limited to 35 dBA at night, similar to typical noise levels in a quiet bedroom. Noise impacts associated with construction of this alternative will be temporary and less than significant. Upon completion of the MSE Raise, area noise levels will be the same as the current condition.	Noise monitoring plan acceptable to Forest Service, to meet mitigation requirements.
24	WQC Order	Lahontan Water Board	October 31, 2013	October 31, 2013	XI Noise (d): (pg. 33) The project will result in temporary increases in ambient noise levels during construction.	Noise levels will be monitored in the campgrounds if night work is required. The contractor will not be allowed to exceed 35dBA measured at the Loggerhead Campground at night.	Noise monitoring plan acceptable to Forest Service, to meet mitigation requirements.
25	WQC Order	Lahontan Water Board	30 - 45 days prior to Dog Valley Road closure for construction detour (and immed. upon reopening road)	15 days prior to Dog Valley Road closure for construction detour	XIII Public Services (a.i. and a.iv.): (pg. 33-34) The closure of Dog Valley Road across the dam could affect emergency response times to potential fires, the campgrounds, and other areas and structures on the west side of the dam.	Reclamation will ensure local law enforcement and emergency responders in the area including but not limited to Sierra County, Nevada County, and the Forest Service are notified in writing 30 days in advance of the actual road closure, and without delay following road reopening.	Final executed *Emergency Action Plan.* Copies of written notices issued and issuance dates, or other documented notices provided 30 days in advance of road closures.

26	WCQ Order	Lahontan Water Board	Throughout project.	October 31, each year of active construction.	XIV Recreation (b): (pg. 34-35) Stampede Reservoir vista area and the Dog Valley Road over the dam and dike will be closed during the 2nd and 3rd years of construction including the winter. Construction staging is planned temporarily in a popular fishing area with limited parking below the dam.	Reservoir boat launch and recreation camping facilities will remain open and be accessible from the west detour route. An all-weather surface on the existing unpaved segment of the detour route will facilitate public access to Stampede Reservoir. As part of the project, a safe turnout and parking area will be provided for Little Truckee River fishing access during construction.	Provide public notices about the construction project, temporary closures, open facilities, and alternate access routes. Report on parking areas established and number of new spaces made available.
27	WQC Order	Forest Service, Sierra County, Nevada County	Prior to road closure for construction.	October 31, 2013	XV Transportation and Traffic (a): (pg. 35-36) The project will cause an increase in traffic which is substantial in relation to the existing traffic load from road closure that will require detour to State Highway 89 and the Dog Valley Road. Traffic will increase along Dog Valley Road from Hobart Mills through Russell Valley during construction.	The unpaved portion of Dog Valley Road from Dry Creek to the boat ramp road at Stampede Reservoir will be paved with chip-seal. Contractors will use alternate routes. Public notices will be provided about the construction project, temporary closures, open facilities, and alternate access routes before construction began with updates throughout construction process. A traffic control plan will be implemented and all roadway activities and roadway designs will be coordinated with appropriate and local authorities.	Report on the road installed as accepted by Sierra County and Nevada County, to meet mitigation requirement. Traffic control plan acceptable to Forest Service, Sierra County and Nevada County.

28	WQC Order	Lahontan Water Board	30 - 45 days prior to Dog Valley Road closure for construction detour (and immed. upon reopening road)	15 days prior to Dog Valley Road closure for construction detour	XV Transportation and Traffic (e): The project may result in inadequate emergency access due to road closure.	Reclamation will ensure local law enforcement and emergency responders in the area including but not limited to Sierra County, Nevada County, and the Forest Service are notified in writing 30 days in advance of the actual road closure, and without delay following road reopening.	Final executed *Emergency Action Plan.* Copies of written notices issued and issuance dates, or other documented notices provided 30 days in advance of road closures.
29	WQC Order	Lahontan Water Board	Prior to road closure for construction.	October 31, 2013	XV Transportation and Traffic (f): (pg. 37) The project may result in inadequate parking capacity for recreation access.	Parking for a fishing area off Stampede Meadows Road will be modified to allow access directly off of Stampede Meadows Road so fishermen can avoid conflicts with construction traffic.	Report on parking areas established and new spaces made available.
30	WQC Order	Lahontan Water Board	Throughout project.	October 31, each year	XVI Utilities and Service Systems (g): (pg. 39-40) Solid waste generated from construction and detours could exceed storage for refuse.	Reclamation will be required to comply with federal, state, and local laws and regulations pertaining to solid waste collection and disposal. Reclamation will require the project contractor to empty the dumpsters located on Dog Valley Road in Russell Valley every Monday from April 1 through October 1 of each construction season.	Report information to verify that refuse was collected as required every Monday from April 1 through October 1 of each construction season.

31	WQC Order	Lahontan Water Board	Throughout project.	Not applicable.	XVII Mandatory Findings of Significance (a): (pg. 39) The project has the potential to degrade the quality of the environment, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare plant or animal or eliminate important examples of the major periods of California history or prehistory.	See responses to IV (a) and (b), and V, concerning impacts and mitigation measures for effects on plants, animals and wetlands. No additional mitigation is identified in this section.	No additional reports required; covered above.
32	WQC Order	Lahontan Water Board	Throughout project.	October 31, each year of active construction.	XVII Mandatory Findings of Significance (c): (pg. 40-41) The project has the potential to have substantial adverse effects on human beings.	See above summarizing the environmental commitments to be implemented before, during, and after construction to prevent and reduce the impacts of the proposed action below the level of significance. No additional mitigation is identified in this section.	Certification of compliance with WQC Order requirements, or a full disclosure of any violations of these conditions or requirements, together with corrective measures proposed or implemented to comply, with implementation dates, and a schedule for completion of any measures proposed to comply.