STATE WATER RESOURCES CONTROL BOARD
WATER QUALITY ORDER NO. 2015-XXXX-DWQ
WASTE DISCHARGE REQUIREMENTS
FOR
FEDERAL HIGHWAY ADMINISTRATION –
CENTRAL FEDERAL LANDS HIGHWAYS DIVISION
MOJAVE NATIONAL PRESERVE ROAD REPAIR PROJECT

The State Water Resources Control Board (State Water Board) finds:

1. Discharger

On March 20, 2015 the Federal Highway Administration – Central Federal Lands Highway Division (FHWA) submitted a report of waste discharge for the *Mojave National Preserve – Reconstruct Road Segments to Improve Safety Project PMIS 18464* (Mojave National Preserve Road Repair Project, or Project). The Project entails construction of various road safety improvements at eight sites in the Mojave National Preserve, located in San Bernardino County, California. On April 4, 2015 the State Water Board notified FHWA that the application was incomplete because it lacked required application information. The remaining application information was submitted by FHWA and the application was deemed complete on June 2, 2015. The FHWA has provided design and permitting services for the Project, including the applications for these WDRs, on behalf of the United States National Park Service (USNPS).

2. Project Description and Purpose

The USNPS proposes to make safety improvements on paved and unpaved roads within Mojave National Preserve (Preserve), in San Bernardino County, California. The Project consists of road repairs at eight sites (see Table 1). At six sites, road, intersection and curve realignments would be constructed. At one site, two low water crossings would be rebuilt and repaved, and at one site a road embankment that is eroding due to stream channel erosion would be repaired.

Five locations, including the intersections, are on paved roads, and total approximately 1.9 linear miles. The Project also includes improvements to maintain safe ingress/egress at three sites on unpaved roads that serve as main access roads for the local community. Roadway embankment protection totaling about 1.6 miles in length will be installed where flood events have frequently caused damage, and two low water crossings which total 320 feet in length will be reinforced to reduce the severity and incidence of washouts.

The purpose of the Project is to reduce the number of accidents within the Preserve by improving roadway elevations, grades, curvature, and sight distances, and by realigning two intersections. The Project purpose also includes improvement in protection of the natural resources of the Preserve by creating highway structures that impede or reduce accidental and intentional movement of vehicles off the highway and onto adjacent protected lands. Resources to be protected include various sensitive species including desert tortoise (*Gopherus agassizii*), a species listed as rare and endangered under the Federal Endangered Species Act.

3. Project Location

Maps depicting the location of the Project are shown in Attachment A. The Project is located in San Bernardino County and includes eight sites throughout the Mojave National Preserve, as described shown in Table 2 of Attachment C.

Table 1 – Mojave National Preserve Road Repair Project – Site Locations and Proposed Activities
(Site numbers correspond to site numbers in Attachment A, Project Area Map 1b)

Site No.	Site Name	Latitude	Longitude	Proposed Activity
1	Kelbaker Road 1	35.2460	-115.8896	curve realignment
2	Kelbaker Road 2, Kelso Pass	35.1466	-115.7341	realign curves and elevations
3	Kelbaker Road 3, Granite Pass	35.8036	-115.6119	realign and regrade road
4	Kelso-Cima/Kelbaker Intersection	35.0011	-115.6541	Realign intersection; raise road grade at RR crossing
5	Kelso-Cima/Morning Star Mine Intersection	35.2370	-115.4997	realign intersection, raise road grade at RR crossings
6	Cedar Canyon 1 & 2	35.1721 35.1719	-115.4262 -115.4164	rebuild/pave two low water crossings
7	Black Canyon Road	35.1645	-115.4045	regrade curve superelevation
8	Black Canyon Slope Protection	35.1094	-115.4043	Repair/riprap eroded road embankment adjacent to dry wash, and add low water crossing for tributary wash to main wash

4. Site Description

The Project area is entirely within the Mojave National Preserve, which is managed by the USNPS. All of the waters of the state affected by the Project occur as unnamed dry washes that drain closed basins which extend beyond the Preserve boundaries.

Mojave National Preserve is a 1.6 million-acre unit of the USNPS, established by Congress on October 31, 1994, by the California Desert Protection Act (CDPA). The Preserve is bounded to the north and south by major interstate highways, I-15 and I-40. The Nevada–California state-line makes up most of the eastern boundary. The Preserve is located about half way between Las Vegas and Joshua Tree National Park.

The Preserve features a combination of Great Basin, Sonoran, and Mojave Desert ecosystems; a wide variety of desert plant life in combinations that exist nowhere else in the United States in such proximity.

Providence Mountain State Recreation Area (Mitchell Caverns), the University of California's Granite Mountains Natural Reserve, and California State University's Soda Springs Desert Studies Center at Soda Springs are also within the Preserve boundaries.

5. Receiving Waters Information

The Project is located within the jurisdictions of the Lahontan Regional Water Quality Control Board and the Colorado River Basin Regional Water Quality Control Board (Regional Water Boards). Receiving waters and groundwater potentially impacted by this Project are protected in accordance with the water quality control plans (Basin Plan) for the regions and other plans and policies which may be accessed online at: http://www.waterboards.ca.gov/plans_policies/. The Basin Plans include water quality standards which consist of beneficial uses of waters of the state[1] and water quality objectives to protect those uses. Attachment C lists the receiving waters and beneficial uses of waters of the state impacted by the Project.

6. Impacts to Waters of the State

The Project involves the proposed discharge of structural materials and/or earthen wastes (fill) to ephemeral and intermittent drainages. These impacts could occur during construction, operation, and maintenance of the Project. Activities that could cause direct and indirect, and permanent and temporary impacts, include: addition of highway road fill during curve realignment and removal of old road fill from abandoned road sections, improvement of roadside pullouts, road paving, installation of low-water road crossing structures, and installation of revetment material to protect road embankments from stream erosion. .

Direct impacts are impacts that occur when any Project activities occur directly in waters of the state. Indirect impacts are impacts to waters immediately outside of the direct impact area or when Project activities occur outside of waters of the state, but close enough where they could still impact waters of the state.

Potential direct impacts from the Project may cause adverse effects to waters of the state by increasing erosion and sedimentation from hydro-modification of streams (i.e., any activity or structure that increases the velocity and volume (flow rate) and/or the timing of runoff); reducing base flows of streams due to decreased groundwater recharge from new impervious surfaces; introducing potential new sources of polluted stormwater runoff; and loss of waters from direct removal and/or filling of waters of the state (i.e., wider road beds). Individual impact locations and quantities are shown in Table 2 of Attachment C. Total impacts are summarized in Table 1 below.

[1] No Waters of the United States occur in the project area. "Waters of the United States" means surface water and water bodies as defined by United States Environmental Protection Agency (U.S. EPA) regulations (see 40 C.F.R. § 122.2). This definition, which establishes the limits of federal jurisdiction over state waters, does exclude some surface water and water body types recognized under the California Water Code. The latter defines "waters of the state" more broadly as "any surface water or ground water, including saline waters, within the boundaries of the state." [Wat. Code, § 13050, subd. (e)]. Waters of the state that fall outside of federal jurisdiction are nonetheless fully protected under the Water Code.

Table 1: Total Project Fill/Excavation Quantity						
Aquatic Resource Type	**Temporary Impact**			**Permanent Impact**		
	Acres	CY	LF*	Acres	CY	LF
Stream Channel	na	na	na	0.392	na	3,055
Cubic Yards (CY); Linear Feet (LF)						

7. Avoidance and Minimization

Projects authorized by the State Water Board that include impacts to waters of the state must demonstrate that the Project design has first avoided and then minimized impacts to waters of the state to the maximum extent practicable. After all opportunities to avoid and minimize impacts to waters of the state have been implemented, any remaining, unavoidable impacts to waters of the state must be offset by compensatory mitigation.

The USNPS and FHWA have avoided direct impacts to waters of the state by confining the proposed activities to previously existing road beds, or by removing abandoned road beds. New impacts occur only as minor incremental widening of road prisms and water crossings.

The USNPS and FHWA will minimize impacts by incorporating mitigation measures that minimize disturbance to vegetation, provide for restoration of disturbed sites, and prevent movement of noxious weeds or invasive plants. Other measures include hazardous materials handling practices, spill prevention and clean-up measures, and erosion control measures. To protect water quality and streams, construction will not be performed during precipitation events that result in flow to stream channels affected by the Project, and staging areas will be placed out of streams and waters to the greatest extent possible. More information concerning these and other mitigation measures are in Attachment E.

8. Compensatory Mitigation

See Attachment C.

9. Regulatory Authority and Reason for Action

The FHWA prepared a delineation report, showing waters of the state in the Project area. The U.S. Army Corps of Engineers (Corps) has found no jurisdictional waters in the Project area, and has declined to regulate activities in these waters under section 404 of the federal Clean Water Act (33 U.S.C. § 1344). Nonetheless, these drainages are waters of the state, as defined by section 13050 of the California Water Code, and are therefore subject to state requirements. Therefore, these WDRs are issued pursuant to Water Code section 13263 to regulate discharges to waters of the state.

These WDRs regulate the proposed discharge of fill material, including structural material and/or earthen wastes associated with the construction and operation of the Project to waters of the state. WDRs ensure that the Project's construction and operation will comply with all relevant Basin Plans, other applicable water quality control plans, applicable water quality standards, and appropriate requirements of state law.

These WDRs also regulate waste discharges to non-federal waters from stormwater runoff, other discharges associated with Project construction activity, and post-construction stormwater runoff.

10. Fees

According to the State Water Board's *Billing Guidelines For Federal Facilities* (as revised September 12, 2006), fees are not required for this federal undertaking on federal lands. CIWQS Fee code 18 will be entered to designate these federal facilities that are not subject to fees based on this policy.

11. California Environmental Quality Act (CEQA) Findings

Upon approval of these WDRs, the State Water Board, as lead agency for CEQA, hereby adopts Finding of No Significant Impact (FONSI) prepared by the USNPS for the Project, dated June, 2015 and signed on June 4, 2015. The FONSI satisfies CEQA's requirements for a negative declaration.

A Notice of Intent to Adopt the FONSI was filed with the State Clearinghouse (SCH) upon the release of the Draft WDRs with the meeting announcement for the State Water Board's scheduled meeting of September 1, 2015.

Pursuant to CEQA, the State Water Board has made Findings of Facts (Findings) which support the issuance of these WDRs and are included in Attachment D. A Notice of Determination will be filed with the SCH by the State Water Board within five days of adoption of these WDRs.

12. Public Notice

The State Water Board provided public notice and an opportunity for public comment of the draft WDRs as set forth in Water Code section 13167.5 beginning on July 16, 2015. The public comment period ended on August 17, 2015.

THEREFORE, IT IS HEREBY ORDERED that, pursuant to Water Code sections 13160 and 13263:

A. Reporting and Notification Requirements

For reporting and notification details for the Report Types, including requirements for photo and map documentation during the Project, see Attachment G. When submitting written reports and notifications, include the Report and Notification Cover Sheet in Attachment G which must be signed by the Discharger or an authorized representative.

1. **Annual Reporting:** The Discharger shall submit Report Type 1 each year on September 30th following the issuance of these WDRs. Annual reporting shall continue until a Notice of Project Complete Letter is issued to the Permittee.

2. **Project Status Notifications**

   a. **Commencement of Construction:** The Discharger shall submit Report Type 2 at least seven (7) days prior to start of initial ground disturbance activities.

   b. **Request for Notice of Completion of Discharges Letter:** The Discharger shall submit Report Type 3 following completion of active Project construction activities, including any required restoration and permittee-responsible mitigation. This request shall be submitted to the State Water Board staff within thirty (30) days following

completion of all Project construction activities. Upon approval of the request State Water Board staff shall issue a Notice of Completion of Discharges Letter to the Discharger which will end the active discharge period and associated annual fees.

c. **Request for Notice of Project Complete Letter:** The Discharger shall submit Report Type 4 when construction and/or any post-construction monitoring is complete,[2] and no further Project activities will occur. This request shall be submitted to State Water Board staff within thirty (30) days following completion of all Project activities. Upon approval of the request the State Water Board staff shall issue a Notice of Project Complete Letter to the Discharger which will end the post discharge monitoring period and associated annual fees.

3. Conditional Notifications and Reports: The following notifications and reports are required as appropriate.

a. Accidental Discharges of Hazardous Materials[3]

Following an accidental discharge of a reportable quantity of a hazardous material, sewage, or an unknown material, the following applies (Wat. Code, § 13271):

i. As soon as (A) Discharger has knowledge of the discharge or noncompliance, (B) notification is possible, and (C) notification can be provided without substantially impeding cleanup or other emergency measures then:
- first call – 911 (to notify local response agency)
- then call – Office of Emergency Services (OES) State Warning Center at: (800) 852 - 7550 or (916) 845 – 8911
- Lastly follow the required OES procedures as set forth in: http://www.caloes.ca.gov/FireRescueSite/Documents/CalOES-Spill_Booklet_Feb2014_FINAL_BW_Acc.pdf

ii. Following notification to OES the Permittee shall notify State Water Board, as soon as practicable. Notification may be via telephone, e-mail, delivered written notice, or other verifiable means.

iii. This notification must be followed within three (3) business days by submission of Report Type 5.

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[2] Completion of post-construction monitoring shall be determined by State Water Board staff and shall be contingent on successful attainment of restoration and mitigation performance criteria.

[3] "Hazardous material" means any material that, because of its quantity, concentration, or physical or chemical characteristics, poses a significant present or potential hazard to human health and safety or to the environment if released into the workplace or the environment. "Hazardous materials" include, but are not limited to, hazardous substances, hazardous waste, and any material that a handler or the administering agency has a reasonable basis for believing that it would be injurious to the health and safety of persons or harmful to the environment if released into the workplace or the environment. (Health & Saf. Code, § 25501).

b. Violation of Compliance with Water Quality Standards: The Discharger shall notify the State Water Board of any event causing a violation of compliance with water quality standards. Notification may be via telephone, e-mail, delivered written notice, or other verifiable means.

i. Examples of noncompliance events include: lack of storm water treatment following a rain event, discharges causing a visible plume in a water of the state, and water contact with uncured concrete.

ii. This notification must be followed within three (3) business days by submission of Report Type 6.

c. In-Water Work

i. The Permittee shall notify the State Water Board at least forty-eight (48) hours prior to initiating work in water or stream diversions. Notification may be via telephone, e-mail, delivered written notice, or other verifiable means.

ii. Within three (3) business days following completion of work in water or stream diversions, Report Type 7 must be submitted to State Water Board staff.

d. Modifications to Project

The Discharger shall give advance notice to State Water Board staff if Project implementation as described in the application materials is altered in any way or by the imposition of subsequent permit conditions by any local, state or federal regulatory authority by submitting Report Type 8. The Discharger shall inform State Water Board staff of any Project modifications that will interfere with the Discharger's compliance with these WDRs. Notification may be made in accordance with conditions in the certification deviation section of these WDRs.

e. Transfer of Property Ownership: This WDRs are not transferable in their entirety or in part to any person or organization except after notice to the State Water Board in accordance with the following terms:

i. The Discharger must notify the State Water Board of any change in ownership or interest in ownership of the Project area by submitting Report Type 8. Notification of change in ownership must include a statement that the Discharger has provided the purchaser with a copy of these WDRs and that the purchaser understands and accepts the WDR's requirements and the obligation to implement them or be subject to administrative and/or civil liability for failure to do so. This includes complying with any long-term BMP[4] maintenance plan requirements approved by the State Water Board. The Permittee and purchaser must sign and date the notification and provide such

[4] Best Management Practices (BMPs) is a term used to describe a type of water pollution or environmental control.

notification to the State Water Board at least 10 days prior to the transfer of ownership. The new owner, or purchaser, must also submit a written request to the State Water Board to be named as the permittee in revised WDRs. The Executive Director is authorized to amend these WDRs to reflect transfers of property ownership.

ii. Until such time as these WDRs have been modified to name the purchaser as the permittee, the Permittee shall continue to be responsible for all requirements set forth in these WDRs.

f. Transfer of Long-Term BMP maintenance: If maintenance responsibility for post-construction BMPs is legally transferred, the Discharger must submit to the State Water Board a copy of such documentation and must provide the transferee with a copy of a long-term BMP maintenance plan that complies with manufacturer specifications. The Discharger must provide such notification to the State Water Board with Report Type 8 at least 10 days prior to the transfer of BMP maintenance responsibility.

4. Report Submittal Information

Written notice shall be submitted to State Water Board and the appropriate Regional Water Board at the following addresses:

	State Water Board
Phone	(916) 558-1709
Fax	(916) 341-5584
Email	clifford.harvey@waterboards.ca.gov
Address	ATTN: 401 Certification Program Division of Water Quality State Water Resources Control Board 1001 I Street 15th Floor Sacramento, CA 95814

	Colorado River Basin Regional Water Board
Phone	(760) 776-8950
Fax	(760) 341-6830
Email	Jay.Mirpour@waterboards.ca.gov
Address	ATTN: 401 Certification Program 73-720 Fred Waring Drive, Su. 100 Palm Desert, CA 92260

	Lahontan Regional Water Board (Victorville)
Phone	(760) 241-7376
Fax	(760) 241-7308
Email	Jan.Zimmerman@waterboards.ca.gov
Address	ATTN: 401 Certification Program 1440 Civic Drive, Suite 200 Victorville, CA 92392

B. Monitoring Requirements

In the event that project activity occurs when surface water is present, the following conditions shall monitoring apply:

1. General: Continuous visual surface water monitoring shall be conducted to detect accidental discharge of construction related pollutants (e.g. oil and grease, turbidity plume, or uncured concrete).

2. Accidental Discharge: Upon notification of and accidental discharge of waste, the State Water Board may require water quality monitoring. The sources of accidental discharges must be eliminated as soon as practicable.

C. General Compliance Conditions

1. Failure to comply with any condition of these WDRs shall constitute a violation of the Porter-Cologne Water Quality Control Act (Wat. Code, § 13000 et seq.). Any such WDRs previously granted shall immediately be revoked, and any or all discharges shall cease. FHWA may then be subject to administrative and/or civil liability pursuant to Water Code section 13350.

2. a. Permitted actions must not cause a violation of any applicable water quality standards, including impairment of designated beneficial uses for receiving waters as adopted in the Basin Plans by any the applicable Regional Water Board or any applicable State Water Board water quality control plan or policy.

   b. In response to a suspected violation of any condition of these WDRs, the State Water Board may require FHWA to furnish, under penalty of perjury, any technical or monitoring reports the State Water Board deems appropriate, provide that the burden, including costs, of the reports shall bear a reasonable relationship to the need for the reports and the benefits to be obtained from the reports. The additional monitoring requirements ensure that permitted discharges and activities comport with any applicable effluent limitations, water quality standards, and/or other appropriate requirement of state law.

3. The FHWA must, at all times, fully comply with engineering plans, specifications, and technical reports submitted to support these WDRs; and all subsequent submittals required as part of these WDRs. The conditions within these WDRs and attachments supersede conflicting provisions within FHWA submittals.

4. The FHWA shall adhere to all requirements in the mitigation monitoring and reporting program (MMRP) as required by CEQA and is incorporated herein by reference.

D. Administrative Conditions

1. Signatory requirements for all document submittals required by these WDRs are presented in Attachment B.

2. The Executive Director of the State Water Board may suspend, cancel, or modify these WDRs, after providing notice to FHWA, if the Executive Director determines that the Project fails to comply with any of the terms or conditions of these WDRs.

3. The Executive Director may add to or modify the conditions of these WDRs, 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.

4. The FHWA shall give advance notice to State Water Board staff if Project implementation as described in FHWA's application is altered in any way or by the imposition of subsequent permit conditions by any local, state or federal regulatory authority. The FHWA shall inform State Water Board staff of any modifications that interfere with compliance with these WDRs.

5. These WDRs do not authorize any act which results in the taking of a threatened, endangered or candidate species or any act, which is now prohibited, or becomes prohibited in the future, under either the California Endangered Species Act (Fish & G. Code, §§ 2050-2097) or the federal Endangered Species Act (16 U.S.C. §§ 1531-1544). If a "take" will result from any act authorized under these WDRs held by FHWA, FHWA must obtain authorization for the take prior to any construction or operation of the portion of the Project that may result in a take. The FHWA is responsible for meeting all requirements of the applicable endangered species act for the Project authorized under these WDRs.

6. The FHWA shall grant Water Boards staff, or an authorized representative (including an authorized contractor acting as a State Water Board representative), upon presentation of credentials and other documents as may be required by law, permission to:

   a. Enter upon the Project or compensatory mitigation site(s) premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of these WDRs.

   b. Have access to and copy any records that must be kept under the conditions of these WDRs.

   c. Inspect any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under these WDRs.

   d. Sample or monitor for the purposes of assuring compliance with these WDRs.

7. A copy of these WDRs shall be provided to any contractor and all subcontractors conducting the construction and restoration work, and copies shall remain in their possession at the Project site until FHWA receives a Notice of Project Complete Letter from the State Water Board. The FHWA shall be responsible for work conducted by its contractor and any subcontractors.

8. A copy of these WDRs must be available at the Project site(s) during construction and restoration for review by site personnel and agencies who may not be involved in construction. All personnel performing work on the Project shall be familiar with the content of these WDRs and its posted location at the Project site.

9. Lake and Streambed Alteration Agreement: The FHWA shall submit a signed copy of the Department of Fish and Wildlife's (CDFW) lake and streambed alteration agreement to the State Water Board immediately upon execution and prior to any discharge to waters of the state, if such agreement is required by CDFW.

E. Construction Conditions

Good Site Management - "Housekeeping"

1. All activities and best management practices (BMPs) shall be implemented according to FHWA's application and the conditions in these WDRs. BMPs for erosion, sediment, and turbidity control shall be implemented and in place at commencement of, during, and after any ground clearing activities or any other Project activities that could result in erosion or sediment discharges to surface water.

2. Measures shall be employed to minimize disturbances along stream channels that will adversely impact the water quality of waters of the state. Disturbance or removal of vegetation shall not exceed the minimum necessary to complete Project implementation.

3. The FHWA or USNPS shall oversee the work of the contractor during implementation of the Project, to ensure that the work is being done in accordance with the plans.

4. Waste discharges associated with the Project shall be in compliance with Water Quality Objectives as stated in the respective Basin Plans (See Table 2), and shall not:

   a) degrade surface water communities and populations including vertebrate, invertebrate, and plant species;
   b) promote the breeding of mosquitoes, gnats, black flies, midges, or other pests;
   c) alter the color, create visual contrast with the natural appearance, nor cause aesthetically undesirable discoloration of the receiving waters;
   d) cause the formation of sludge deposits; or
   e) adversely affect any designated beneficial uses of waters of the state.

Table 2: Water Quality Objectives

Constituent	Colorado River Basin Regional Water Board Limit	Lahontan Regional Water Board Limit
pH	Since the regional waters are somewhat alkaline, pH shall range from 6.0-9.0. Discharges shall not cause any changes in pH detrimental to beneficial water uses. (Colorado River Basin Regional Water Quality Control Board, Water Quality Control Plan for the Colorado River Basin, (2014), Chapter 3 *Water Quality Objectives,* p. 3-2.)	In fresh waters with designated beneficial uses of COLD or WARM, changes in normal ambient pH levels shall not exceed 0.5 pH units. For all other waters of the Lahontan Region, the pH shall not be depressed below 6.5 nor raised above 8.5. The Lahontan Regional Water Board recognizes that some waters of the Lahontan Region may have natural pH levels outside of the 6.5 to 8.5 range. Compliance with the pH objective for these waters will be determined on a case-by-case basis. (Lahontan Regional Water Quality Control Board, Water Quality Control Plan for the Lahontan Region (Basin Plan) - Region 6 (1995), Chapter 3 *Water Quality Objectives,* p. 5)

<table>
<tr><th>Constituent</th><th>Colorado River Basin Regional Water Board Limit</th><th>Lahontan Regional Water Board Limit</th></tr>
<tr><td>Temperature</td><td>The natural receiving water temperature of surface waters shall not be altered by discharges of wastewater unless it can be demonstrated to the satisfaction of the Regional Board that such alteration in temperature does not adversely affect beneficial uses.

(Colorado River Basin Regional Water Quality Control Board, Water Quality Control Plan for the Colorado River Basin, (2014), Chapter 3 Water Quality Objectives, p. 3-2.)</td><td>The natural receiving water temperature of all waters shall not be altered unless it can be demonstrated to the satisfaction of the Lahontan Regional Water Board that such an alteration in temperature does not adversely affect the water for beneficial uses.

For waters designated WARM, water temperature shall not be altered by more than five degrees Fahrenheit (5° F) above or below the natural temperature. For waters designated COLD, the temperature shall not be altered.

(Lahontan Regional Water Quality Control Board, Water Quality Control Plan for the Lahontan Region (Basin Plan) - Region 6 (1995), Chapter 3 Water Quality Objectives, p. 6)</td></tr>
<tr><td>Dissolved Oxygen</td><td>The dissolved oxygen concentration shall not be reduced below the following minimum levels at any time.
Waters designated:
WARM.....5.0 mg/l
COLD.....8.0 mg/l

WARM and COLD....8.0 mg/l

(Colorado River Basin Regional Water Quality Control Board, Water Quality Control Plan for the Colorado River Basin, (2014), Chapter 3 Water Quality Objectives, p. 3-3)</td><td>The dissolved oxygen concentration, as percent saturation, shall not be depressed by more than 10 percent, nor shall the minimum dissolved oxygen concentration be less than 80 percent of saturation.

For waters with the beneficial uses of COLD, COLD with SPWN, WARM, and WARM with SPWN, the minimum dissolved oxygen concentration shall not be less than that specified below.

Water Quality Criteria for Ambient Dissolved Oxygen Cocentration[1,2]
<table>
<tr><th></th><th colspan="4">Beneficial Use Class</th></tr>
<tr><td></td><td>COLD & SPWN[3]</td><td>COLD</td><td>WARM & SPWN[3]</td><td>WARM</td></tr>
<tr><td>30 Day Mean</td><td>NA[4]</td><td>6.5</td><td>NA</td><td>5.5</td></tr>
<tr><td>7 Day Mean</td><td>9.5 (6.5)</td><td>NA</td><td>6.0</td><td>NA</td></tr>
<tr><td>7 Day Mean Minimum</td><td>NA</td><td>5.0</td><td>NA</td><td>4.0</td></tr>
<tr><td>1 Day Minimum[5,6]</td><td>8.0 (5.0)</td><td>4.0</td><td>5.0</td><td>3.0</td></tr>
</table>
1. From: USEPA. 1986. Ambient water quality criteria for dissolved oxygen. Values are in mg/L
2. These are water column concentrations recommended to achieve the required intergravel dissolved oxygen concentration shown in parentheses. For species that have early life stages exposed directly to the water column (SPWN), the figures in parentheses apply.
3. Includes all embryonic and larval stages and all juvenile forms to 30-days following hatching (SPWN).</td></tr>
</table>

Constituent	Colorado River Basin Regional Water Board Limit	Lahontan Regional Water Board Limit
		4. NA (Not Applicable) 5. For highly manipulatable discharges, further restrictions apply. 6. All minima should be considered as instantaneous concentrations to be achieved at all times. (Lahontan Regional Water Quality Control Board, Water Quality Control Plan for the Lahontan Region (Basin Plan) - Region 6 (1995), Chapter 3 *Water Quality Objectives,* p. 4, 24)
Total Suspended Solids (TSS)	Discharges of wastes or wastewater shall not contain suspended or settleable solids in concentrations which increase the turbidity of receiving waters, unless it can be demonstrated to the satisfaction of the Regional Board that such alteration in turbidity does not adversely affect beneficial uses. (Colorado River Basin Regional Water Quality Control Board, Water Quality Control Plan for the Colorado River Basin, (2014), Chapter 3 *Water Quality Objectives,* p. 3-3)	Waters shall not contain suspended materials in concentrations that cause nuisance or that adversely affects the water for beneficial uses. For natural high quality waters, the concentration of total suspended materials shall not be altered to the extent that such alterations are discernible at the 10 percent significance level. (Lahontan Regional Water Quality Control Board, Water Quality Control Plan for the Lahontan Region (Basin Plan) - Region 6 (1995), Chapter 3 *Water Quality Objectives,* p. 6)
Turbidity	Waters shall be free of changes in turbidity that cause nuisance or adversely affect beneficial uses. (Colorado River Basin Regional Water Quality Control Board, Water Quality Control Plan for the Colorado River Basin, (2014), Chapter 3 *Water Quality Objectives,* p. 3-4)	Waters shall be free of changes in turbidity that cause nuisance or adversely affect the water for beneficial uses. Increases in turbidity shall not exceed natural levels by more than 10 percent. (Lahontan Regional Water Quality Control Board, Water Quality Control Plan for the Lahontan Region (Basin Plan) - Region 6 (1995), Chapter 3 *Water Quality Objectives,* p. 6)
Sediment	Waters shall be free of changes in turbidity that cause nuisance or adversely affect beneficial uses. (Colorado River Basin Regional Water Quality Control Board, Water Quality Control Plan for the Colorado River Basin, (2014), Chapter 3 *Water Quality Objectives,* p. 3-4)	(No sediment standard in basin plan for this region.)

Dewatering

5. All surface waters, including ponded waters, shall be diverted away from areas undergoing grading, construction, excavation, vegetation removal, and/or any other activity which may result in a discharge to the receiving water.

6. No activities shall involve wet excavations (i.e., no excavations shall occur below the seasonal high water table). A minimum 5-foot buffer zone shall be maintained above the existing groundwater level.

7. Diversion activities shall not result in the degradation of beneficial uses or exceedance of water quality objectives of the receiving waters. Downstream total suspended solids (TSS) and turbidity may not exceed the limits in Table 2. Any such violations may result in corrective and/or enforcement actions, including increased monitoring and sample collection.

8. All temporary dewatering methods shall be designed to have the minimum necessary impacts to waters of the state to isolate the immediate work area. All dewatering methods shall be installed such that natural flow is maintained upstream and downstream of the Project area. Any temporary dams or diversions shall be installed such that the diversion does not cause sedimentation, siltation, or erosion upstream or downstream of the Project area. All dewatering methods shall be removed immediately upon completion of Project activities.

Fugitive Dust Control

9. Dust control measures, including pre-watering of excavation/grading sites, use of water trucks, track-out prevention, washing down vehicles/equipment before leaving site, and prohibiting grading/excavation activities during windy periods, should be implemented as appropriate and in accordance with any mandated drought restrictions.

10. Dust control activities shall be conducted in such a manner that will not produce downstream runoff.

11. Dust control activities shall be conducted in compliance with any restrictions on use of potable water as required by Rule No. 14.1-SO, Voluntary Water Conservation Plan, Southern Division of the California-American Water Company, date effective: April 17, 2014, and as shown below:

    a. Use of potable water for watering streets with trucks, except for initial wash-down for construction purposes (if street sweeping is not feasible), or to protect the health and safety of the public;

    b. Use of potable water for construction purposes, such as consolidation of backfill, dust control, or other uses unless no other source of water or other method can be used; and,

    c. Use of potable water for construction purposes unless no other source of water or other method can be used.

Construction Materials and Equipment

12. No equipment shall be operated in areas of flowing or standing water unless dewatering measures are implemented per Construction Condition numbers 5 – 8.

13. At no time shall FHWA or USNPS or its contractors use any vehicle or equipment which leaks any substance that may impact water quality.

    a. FHWA and USNPS shall designate a staging area for equipment and vehicle fueling, maintenance, and storage at least one-hundred (100) feet away from waters, in a location where fluids or accidental discharges cannot flow into waters. Any maintenance or refueling of vehicles or equipment occurring on-site shall be done in a designated area with secondary containment including drip pans and/or placement of absorbent material, located away from drainage courses to prevent the runoff of storm water and the runoff of spills.

    b. Stationary equipment (motors, pumps, generator, etc.) and vehicles not in use shall be positioned over drip pans or other types of containment.

    c. Spill and containment equipment (oil spill booms, sorbent pads, etc.) shall be maintained onsite at all locations where equipment is used or staged.

14. Except as provided in Condition 15 below, fueling, refueling, lubrication, maintenance, and storage of vehicles and equipment shall not result in a discharge or a threatened discharge to waters of the state, and is prohibited within the floodplain or within one-hundred (100) feet of the waterway.

15. Exceptions to the 100-foot limit may be approved by State Water Board staff on a case-by-case basis provided that FHWA or USNPS first submits a request in writing 30 days in advance of any of these activities that explains why the exception is necessary, the proposed BMPs to contain any hazardous spills, and location information. Such requests should include a fueling plan that:

    a. Identifies the specific piece of machinery that may require fueling within waters of the state;

    b. Provides justification for the need to refuel within waters of the state. The justification shall describe why fueling outside waters of the state is infeasible; and,

    c. Includes a narrative of specific BMPs, including practices, materials, and equipment, that shall be employed to prevent and capture fuel releases.

16. All equipment must be free of mud, soil, sediment, vegetative debris, grease, oil, and all foreign matter prior to transport to the Project site, to prevent transport of hazardous materials, invasive plant propagules, and soil-borne pathogens

17. All imported fill material shall be clean and free of pollutants. All fill material shall be imported from a source that has the appropriate environmental clearances and permits. The reuse of low-level contaminated solids as fill on-site shall be performed in accordance with all state and federal policies and established guidelines.

18. Surface water shall be diverted such that it will not flow over concrete within thirty (30) days after it is poured/sprayed. During that time, if the concrete must be kept moist, then the runoff from the concrete shall not be allowed to enter waters of the state. Commercial sealants, subject to State Water Board approval, may be applied to the concrete surface where difficulty in excluding flow for a long period may occur. If sealant is used, water shall be excluded from the site until the sealant is cured and until no detrimental impacts to water quality shall occur. If groundwater comes into contact with fresh concrete, it shall be prevented from flowing to surface water. Surface water that contacts wet concrete must be pumped out and disposed of at an appropriate off-site commercial facility that is authorized to accept concrete wastes.

19. Asphalt-concrete grindings shall not be placed in any location where it may, at any time, be directly exposed to stormwater or seasonally-high ground water, except asphalt-concrete grinding may be re-used and incorporated into impervious asphalt mixes.

Hazardous Materials and Waste

20. FHWA and USNPS shall not discharge substances in concentrations toxic to human, plant, animal, or aquatic life or that produce detrimental physiological responses.

21. All equipment using gas, oil, hydraulic fluid, or other petroleum products shall be well-maintained and inspected daily for fuel, oil, and hydraulic fluid leaks or other problems that could result in spills of toxic materials prior to use.

22. FHWA and USNPS shall not discharge waste classified as "hazardous waste discharge" as defined in California Code of Regulations, title 22, section 66260.10, or “designated waste” as defined in Water Code section 13173.

23. Onsite containment for storage of chemicals classified as hazardous shall include secondary containment and appropriate management as specified in California Code of Regulations, title 27, section 20320.

24. Asphalt, drilling fluids, lubricants, paints, coating material, oil, petroleum products, or any other substances which could be hazardous to fish and wildlife resulting from or disturbed by Project-related activities, shall be prevented from contaminating the soil and/or entering waters of the state.

25. Activities shall not cause visible oil, grease, or foam on water surfaces in the work area or downstream.

26. Any oil or grease leaks shall be cleaned up immediately.

27. An emergency spill kit must be stocked and available for immediate use at all Project work areas at all times.

28. No hazardous materials, pesticides, fuels, lubricants, oils, hydraulic fluids, or other construction-related potentially hazardous substances should be stored within a floodplain or within one-hundred (100) feet of a water of the state.

29. Application of pesticides must be supervised by a qualified applicator and be in conformance with manufacturer's specifications for use. Compounds used must be appropriate to the target species and habitat.

Access Roads

30. The number of access routes, number and size of staging areas, and the total area of the activity will be limited to the minimum necessary to achieve the Project goal. Routes and boundaries will be clearly demarcated, and these areas will be outside of riparian and wetland areas.

31. The FHWA and USNPS shall use existing paved and unpaved highways and roads where possible for construction access.

32. Wherever possible, roads shall be built at right angles to streams and washes. Culverts or other drainage structures will be installed as necessary across drainages, but the roads should follow natural grade.

33. Sediment barriers shall be installed (e.g., silt fences and/or staked hay or straw bales, or sandbags) at the base of disturbed slopes adjacent to road crossings of watercourses. These barriers shall be installed to prevent siltation into water bodies crossed by or near the construction work area, and will remain in place until re-vegetation is successful.

34. Bridges, culverts, dip crossings, or other structures shall be installed so that water flow is not impaired. Bottoms of temporary culverts shall be placed at water body grade and bottoms of permanent culverts shall be placed at or below water body grade.

35. In-stream structures, including low water crossings and road bank revetments shall be properly aligned within the water body and otherwise engineered, installed, and maintained, to assure resistance to washout, and to prevent erosion and/or fill of the water body. Water velocity shall be dissipated at outfalls to reduce erosion.

36. During installation of any permanent bridge or temporary crossing when surface water is present, a method of containment must be used below the bridge or crossing to prevent debris from falling into the water body.

Trash and Other Waste

37. FHWA is prohibited from discharging waste materials to waters of the state, unless explicitly authorized by these WDRs. Waste materials include, but are not limited to, spoils, debris, or any other substances associated with the Project, such as soil, silt, sand, bark, slash, sawdust, rubbish, cement or concrete washings, broken concrete/cement, welding slag, unset cement, concrete, grout, damaged concrete spoils, wash water used to clean concrete surfaces, leachate from truck or grout mixer cleaning stations, or other organic or earthen material.

38. Designated spoil and waste areas shall be visually marked prior to any excavation and/or construction activity, and storage of the materials shall be confined to these areas. All waste or dredged material removed shall be relocated to a legal point of disposal if applicable. A legal point of disposal is defined as one for which waste

discharge requirements have been established by a Regional Water Quality Control Board or the State Water Board, and is in full compliance with its authorized WDRs.

39. All Project-generated hazardous waste shall be handled, transported, and disposed in strict compliance with all applicable state and federal laws and regulations. When disposing of Project-generated waste, FHWA, USNPS and its contractors shall:

    a. Make appropriate arrangements to dispose of the material, including, but not limited to, property owner agreements, permits, licenses, and environmental clearances;

    b. Obtain satisfactory evidence that the work in this condition has been completed;

    c. Ensure that FHWA and/or USNPS has given written permission for disposal; and

    d. Obtain a dated, signed manifest from the disposal site owner, or authorized representative, that identifies the type and quantity of disposed waste.

40. a. The FHWA and USNPS may temporarily stockpile excavated sediment prior to disposal or reuse, provided that appropriate state and federal regulations are met and BMPs are implemented to protect water quality and beneficial uses. The excavated sediment may be stockpiled on site so that it can be loaded into trucks for offsite disposal within seven calendar days of the completion of active work. Onsite stockpiled materials shall be fully contained to prevent any wind or water transport. The excavated sediment may also be temporarily stockpiled at an offsite location. Offsite stockpiles shall be covered and surrounded with perimeter sediment control BMPs to ensure that excavated materials remain stable. Runoff, sediment, or decant water from excavated materials shall not contact waters of the state. Any material stockpiled that is not actively being used during construction shall be covered with plastic unless reserved for seed banking, which requires alternative erosion and dust control BMPs.

    b. Except for temporary stockpiling of waste generated during demolition or excavation operations (“temporary” in this instance means generated and removed during the same working day), waste materials shall not be placed in a manner where the materials may be transported into waters of the state. Waste materials shall not be placed within 100 linear feet of the ordinary high-water mark of waters of the state. Exceptions to the 100-foot limit may be granted on a case-by-case basis provided that FHWA or USNPS first submits a proposal in writing that is found acceptable by State Water Board staff.

41. Soil, silt, or other organic materials shall not be placed where such materials could pass into surface water or surface water drainage courses.

42. The FHWA shall develop and maintain on site a Project-specific Spill Prevention, Containment and Cleanup Plan (Cleanup Plan) outlining the practices to prevent, minimize, and/or clean up potential spills during construction of the Project. The plan must detail the Project elements, construction equipment types and location, access and staging, and construction sequence. The Cleanup Plan must also address spill response and prevention measures for potential spills that may occur within the Project site.

43. The FHWA is not authorized to discharge wastewater from concrete mixing or pouring operations (e.g., water that has contacted uncured concrete or cement, or related washout) to surface waters, ground waters, or land. All wash water shall be contained and disposed of in compliance with state and local laws, ordinances, and regulations. If concrete washout is necessary at the site, FHWA shall use washout containment to prevent any discharge. Wastewater may only be disposed of to a sanitary waste water collection system/facility (with authorization from the facility's owner or operator) or a properly-licensed disposal or reuse facility.

44. Hardened concrete or grout shall be disposed at an authorized landfill, in compliance with state and local laws, ordinances, and regulations.

45. All construction debris and trash shall be contained and regularly removed from the work area to the staging area during construction activities.

46. To prevent sediment-laden water from being released back into waters of the state during transport of spoils to disposal or reuse locations, truck beds shall be lined with an impervious material (e.g., plastic), or the tailgate shall be blocked with wattles or other appropriate filtration material.

47. All construction-related equipment, materials, and any temporary BMPs no longer needed, shall be removed and cleaned from the site upon completion of the Project.

48. Upon completion of construction, all Project-generated debris, building materials, excess material, waste, and trash shall be removed from all the Project sites for disposal at an authorized landfill or other disposal site in compliance with state and local laws, ordinances, and regulations.

Erosion and Sediment Control; Stabilization

49. FHWA shall prepare a stormwater pollution prevention plan, and shall implement and maintain appropriate erosion control design and implementation measures and sediment controls at all disturbed areas of the Project site that drain to waters of the state through the entire duration of the Project.

50. FHWA shall use appropriate structural BMPs for erosion control as needed: e.g. jute, weed-free straw, coconut fiber erosion control fabric, coir logs, re-vegetation, fiber rolls, erosion control blankets, hydromulching, compost, weed-free straw with tackifiers, temporary basins etc. These measures shall be constructed and maintained to prevent the discharge of earthen materials to waters of the state, including all ephemeral and intermittent drainages, from disturbed areas during all periods of ground clearing, site grading, and construction, as well as after completion of construction.

51. Erosion and sediment control materials shall be on site prior to the start of construction and kept on site at all times so they are immediately available for installation in anticipation of rain events. Materials shall be available in quantities sufficient to respond to reasonably

52. Erosion and sediment control structures shall be installed and maintained in accordance with all specifications governing their proper design, installation, operation, and maintenance.

53. Where areas of bare soil are exposed during the rainy season, silt control measures shall be used where silt and/or earthen fill threaten waters of the state. Silt control structures shall be monitored for effectiveness and shall be repaired or replaced as needed. Buildup of soil behind silt fences shall be removed promptly and any breaches or undermined areas repaired at once.

54. After sediment removal, FHWA and USNPS shall grade channels so that the transition between the work area and the existing channel, both upstream and downstream, is smooth and continuous, and does not present a “wall” of sediment or other blockage that could erode or cause erosion once flows are restored.

55. The grading, stabilization and re-vegetation will be phased to limit the exposed or working face such that the graded area can be stabilized within twenty-four (24) hours after the first prediction of rain during the five (5) day forecast or within twenty-four (24) hours after final grading of the phased area.

56. Where bank stabilization activities may result in modifications to channel cross-sections and/or profiles, the banks shall be re-contoured to match the adjacent bank slope.

57. The USNPS and FHWA shall prioritize the use of wildlife-friendly biodegradable (not photodegradable) erosion control products wherever feasible. The USNPS and FHWA shall not use or allow the use of erosion control products that contain synthetic netting for permanent erosion control (i.e., erosion control materials to be left in place for two years or after the completion date of the project). If USNPS finds that erosion control netting or products have entrapped or harmed wildlife, personnel shall remove the netting or product and replace it with wildlife-friendly biodegradable products.

Vegetation Management

58. The USNPS and FHWA shall adhere to mitigations measures described in the EA/FONSI and standard federal guidance for control of invasive plants and noxious weeds before, during, and following active construction.

59. Equipment and machinery used in Project construction shall be inspected and cleaned of all vegetative matter prior to transport to the Project area, to prevent introduction of non-native, invasive vegetation or propagules.

60. Best management practices to stabilize disturbed soils must include the use of native plant species whenever feasible.

61. The FHWA and USNPS must prevent the introduction or spread of noxious/invasive weeds or aquatic invasive species within the Project and staging areas. Measures may include, but are not limited to, the treatment of on-site infestations and the cleaning of all equipment and gear that has been at an infested site.

Special Status Species

62. Prior to construction, FHWA and USNPS shall hold a mandatory environmental education program for all construction personnel, which shall be conducted by USNPS biologists, botanists, hydrologists or other park resource staff assigned to the Project.

The program shall cover all resource protection measures described in these WDRs, and in the Project EA/FONSI, including plant and animal special status species that could potentially occur on-site (e.g., desert tortoise) and the protection measures to be implemented throughout construction. The environmental education program shall include a description, representative photographs, and legal status of each special status species; terms and conditions of the biological opinion; and the penalties for not complying with biological mitigation and permit requirements.

As new construction personnel are added to the Project, the USNPS and FHWA shall ensure that the crew foreman conducts training sessions for those personnel with FHWA and USNPS project managers prior to the start of work by new personnel. The USNPS and FHWA shall require that the contractor ensure that all construction personnel are in compliance with guidelines and restrictions set forth in the environmental training and Project permits.

63. The FHWA and USNPS shall adhere to all desert tortoise protection commitments as verified in the letter from the March 24, 2015 letter from the US Fish and Wildlife Service to the USNPS.

F. Restoration Conditions

1. After completion of grading, all areas must be revegetated with native species appropriate for the area as described in the Project EA/FONSI and in accordance with USNPS guidance.

2. The FHWA and USNPS shall restore all areas of temporary impacts to aquatic resources and all upland areas of temporary disturbance which could result in a discharge to waters of the state as described in a restoration plans provided in the EA/FONSI.

3. The State Water Board may extend the monitoring period beyond requirements of the restoration plan upon a determination that the performance standards have not been met.

G. Deviation Conditions

Minor modifications of Project locations or predicted impacts may be necessary as a result of unforeseen field conditions, necessary engineering re-design, construction concerns, or similar reasons. Some of these prospective Project modifications may have impacts on water resources. Some modifications of Project locations or predicted impacts may qualify as Deviations. For purposes of these WDRs, a “Deviation” is a Project locational or impact modification that does not require an immediate amendment of these WDRs, because the State Water Board has determined that any potential water resource impacts that may result from the change are sufficiently addressed by the conditions of these WDRs and the mitigation measures described in the EA/FONSI. Project modifications that warrant or necessitate changes to these WDRs that are not addressed by existing environmental documents will require an amendment to these WDRs and do not qualify for the Deviation procedures set forth in Attachment F of these WDRs. After the termination of construction, these WDRs will be amended to reflect all authorized Deviations and any resulting adjustments to the amount of water resource impacts and required compensatory mitigation amounts.

The Executive Director is authorized to amend these WDRs to reflect minor modifications to the Project, as necessary.

H. Waste Discharge Requirements

Except insofar as may be modified by any preceding conditions, all actions under these WDRs are contingent on (a) the discharge being limited and all proposed mitigation being completed in strict compliance with the conditions of these WDRs and the attachments to these WDRs, and (b) compliance with all applicable requirements of Statewide Water Quality Control Plans and Policies, the Regional Water Boards' Water Quality Control Plans and Policies, and the EA/FONSI for the Project.

CERTIFICATION

The undersigned, Clerk to the Board, does hereby certify that the foregoing is a full, true, and correct copy of an order duly and regularly adopted at a meeting of the State Water Resources Control Board held on September 1, 2015.

Jeanine Townsend
Clerk to the Board

Attachment A	Project Location
Attachment B	Signatory Requirements
Attachment C	Receiving Waters and Impact Information
Attachment D	CEQA Findings
Attachment E	Mitigation, Monitoring, and Reporting Plan
Attachment F	Deviation Procedures
Attachment G	Construction Notification and Reporting