



State of Utah

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Department of
Environmental Quality

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Executive Director

DIVISION OF WATER QUALITY
Walter L. Baker, P.E.
Director

Mark McCune, P.E.
Director, Structure Design
Union Pacific Railroad
1400 Douglas Street, Stop 0910
Omaha, Nebraska
68179-0910

Subject: DRAFT Approval 401 Water Quality Certification with Conditions.

Water Quality Certification No.: SPK 2011-00755 (to be determined in 2015).

USACE 404 Permit No.: SPK 2011-0755 (to be determined in 2015).

Applicant: Union Pacific Railroad (UPRR).

Project: Permanent closure of the East Culvert of UPRR's Great Salt Lake Causeway.

Purpose: To duplicate, as closely as possible, the aquatic function (water and salt transfer) lost due to the closure of the East and West Culverts by constructing a new causeway opening. The new causeway opening will be a bridge that is 180 feet long and an earthen control berm at elevation 4,183 feet that creates an opening 150 feet long.

Location: The East Culvert was located at UPRR Mile Post 750.53, in Section 29, Township 6 North, Range 6 West, Salt Lake Meridian, 41.221 and -112.561, Box Elder County, Utah. The West Culvert was located at UPRR Mile Post 744.94, in Section 29, Township 6 North, Range 7 West, Salt Lake Meridian, 41.223 and -112.668, Box Elder County, Utah. The new causeway opening will be located at UPRR Mile Post 739.78, in Section 29, Township 6 North, Range 6 West, Salt Lake Meridian 41.221 and -112.561, Box Elder County, Utah. The locations of the bridge opening, East and West Culvert locations can be viewed on USGS Quadrangles: Lakeside, Carrington Island NE, and Carrington NW, respectively.

Watercourse: Great Salt Lake, Box Elder County, Utah.

Public Comment Period: 01/21/2015 – 2/20/2015.

Dear Mr. McCune:

Pursuant to Section 401 of the Federal Water Pollution Control Act, commonly known as the Clean Water Act (CWA), the Utah Department of Environmental Quality, Division of Water Quality (DWQ) certifies that the Union Pacific Railroad has provided reasonable assurances that any discharge associated with the permanent closure of the East Culvert of the Great Salt Lake Causeway will not violate surface water quality standards, or cause additional degradation in surface waters not presently meeting water quality standards. In accordance with Section 401(a)(1) of the CWA [33 U.S.C. Sec. 1341(a)(1)], DWQ hereby issues this Water Quality Certification provided the conditions outlined below are met and included in the USACE 404 standard individual permit SPK-2011-00755 (to be determined in 2015) and issued to Union Pacific Railroad.

The affected portions of Great Salt Lake have the following designated uses (UAC R317-2-6):

Class 5A - Gilbert Bay: Protected for frequent primary and secondary contact recreation, waterfowl, shore birds and other water-oriented wildlife including their necessary food chain, and

Class 5B - Gunnison Bay: Protected for infrequent primary and secondary contact recreation, waterfowl, shore birds and other water-oriented wildlife including their necessary food chain.

As documented in Utah's 2014 *Integrated Report*, Great Salt Lake was assessed as Category 3. Category 3 means that insufficient data and information are available to determine whether the uses are supported by the water quality. With the exception of a single numeric criterion for selenium for Gilbert Bay, no other numeric water quality criteria are available for Gilbert and Gunnison Bays. Gilbert and Gunnison Bays continue to be protected by Utah's Narrative Standards (UAC R317-2-7.2) and antidegradation policy (UAC R317-2-3).

DWQ has requested that the USACE include all of the following conditions of this 401 Water Quality Certification (Certification) in the USACE 404 Individual Permit SPK-2011-00755 (to be determined in 2015) and issued to the Union Pacific Railroad (UPRR).

1. UPRR must acquire all necessary easements, access authorizations and permits to ensure they are able to build the bridge. Meeting this requirement will fulfill the easement requirement stated in condition #4 of 401 Water Quality Certification SPK 2011-00755 dated December 16, 2013.
2. The installation of the Bridge and Control Berm will be completed as outlined in Appendix A of the Proposed CMMP by December 31, 2016 or the Director may take appropriate action to ensure completion.
3. UPRR shall allow the Director, or authorized representatives, upon the presentation of credentials and other documents as may be required by law, to:
 - a. enter upon UPRR Causeway where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of the Certification;
 - b. have access to and copy, at reasonable times, any records that must be kept under the conditions of this Certification;
 - c. inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operation regulated or required under this Certification; and
 - d. sample or monitor at reasonable times, for the purpose of assuring Certification compliance or as otherwise authorized by the CWA, any substances or parameters at any location.
 - e. DWQ Inspections during the bridge implementation phase will be at Director's discretion in coordination with UPRR.
4. UPRR must adhere to all elements defined in the CMMP, unless otherwise approved by the Director, including these clarifications and modifications:
 - a. Adherence to the outlined mitigation objects, maintenance, performance standards, schedule and reporting time-frames, monitoring and adaptive management elements.
 - b. A Long Term Management Memorandum of Understanding (MOU) will be drafted that defines each party's (including UPRRs) legal, financial and regulatory role after the UPRR monitoring period ends. The relevant parties and their roles must be defined and the MOU signed prior to the Director granting cessation of the monitoring period and the relinquishing of adaptive management responsibility as defined in the Approved CMMP. The proposed MOU must be public noticed for a minimum of 30 days.
 - c. An assessment of effects to aquatic life uses will be conducted after two consecutive quarters when the ambient monitoring results are outside Modeled and Historic salinity

ranges identified in Table 3-7, of the Proposed CMMP or after two consecutive quarters when the ambient monitoring results are outside the Historic but inside the Modeled salinity range.

- d. Determination of compliance with the Causeway Opening Geometry Performance Standards 1, 2 and 4 of the approved CMMP will be made semi-annually for the first two years after bridge completion and then annually until cessation of monitoring is granted by the Director. Triggers for Adaptive Management will be based on the semi-annual and annual measurement results with the targets noted in Table 3-5, page 28, of the Proposed CMMP.
 - e. Water quality monitoring results will be reported to DWQ within 45 days or as otherwise approved by the Director.
 - f. The provision to hold a public notice and comment period on any remediation plans associated with the project (as described in Proposed CMMP Section 3.12.1) is at the Director's discretion.
 - g. Submittal of a revised Quality Assurance Project Plan (QAPP) and Sampling and Analysis Plan (SAP) will be within 90 days of receiving Director approval of the Final CMMP. The QAPP must meet all EPA Requirements for Quality Assurance Project Plans (EPA/240/B-001/003).
 - h. A request for cessation of monitoring will include a report that will document the results of the monitoring during the first five year period after bridge and berm completion and describe any long-term changes in flow and salt transfer associated with the project in relation to the beneficial uses of the Great Salt Lake, anti-degradation policy, numeric criteria and narrative standards. The Director will notify UPRR in writing if the report is approved. If the report is not approved, the Director will provide UPRR with a detailed description of the deficiencies. UPRR will submit a revised report addressing these deficiencies within 60 days of receiving notification, unless an alternative time period is approved by the Director. If the Director disapproves the request, UPRR and DWQ shall meet and consider which aspects of the monitoring program should continue and any additional terms of monitoring.
 - i. All CMMP annual reports will be approved by the Director in writing. If the report is not approved, the Director will provide UPRR with a detailed description of the deficiencies and UPRR will submit a revised report addressing these deficiencies within 60 days of receiving notification, unless an alternative time period is approved by the Director.
5. During construction of the bridge and earthen berms, Best Management Practices (BMPs) are required to minimize the erosion-sediment load to adjacent waters during project construction activities. Sediment retention efforts will be put in place at all drainage areas along the construction corridor to minimize movement of sediment into the water courses. Depending on location these could range from silt fencing to sediment retention basins or deeper storm drain vaults. Failure to implement appropriate BMPs may result in a Notice of Violation of the Utah Water Quality Act.
 6. Utah Code Annotated 19-5-114 requires that any spill or discharge of oil or other substances which may cause pollution to the waters of the State, including wetlands, must be immediately reported to the Utah DEQ Spill Hotline at (801) 536-4123, a 24-hour phone number. UPRR agrees to fully remediate any spill or discharge in accordance with all applicable regulations.
 7. The applicant shall not use any fill material which may leach organic chemicals (e.g., discarded asphalt) or nutrients (e.g., phosphate rock) into Great Salt Lake.
 8. The applicant shall obtain the following permits from DWQ prior to the construction phase of the project:
 - o Dewatering activities, if necessary during the construction, may require coverage under the UPDES General Permit for Construction Dewatering, Permit No. UTG070000. A

fact sheet describing the permit application procedures are located on our web site at: <https://secure.utah.gov/stormwater/main.html>. The permit requires water quality monitoring every two weeks to ensure that the pumped water is meeting permit effluent limitations, unless the water is managed on the construction site.

- Construction activities that disturb one acre or more are required to obtain coverage under the Utah Pollutant Discharge Elimination System (UPDES) Storm Water General Permit for Construction Activities, Permit No. UTR300000. The permit requires the development of a storm water pollution prevention plan (SWPPP) to be implemented and updated from the commencement of any soil disturbing activities at the site until final stabilization of the project. A fact sheet describing the permit application procedures are located on our web site at: <https://secure.utah.gov/stormwater/main.html>.

Please contact Mr. Bill Damery at (801) 536-4354, wdamery@utah.gov with any questions you may have concerning this 401 Water Quality Certification with Conditions.

Sincerely,

Walter L. Baker, P.E.
Director.

WLB:WD:mc

cc: Kathleen Anderson, USACE.
Julia McCarthy, USEPA.

File: SPK 2011-00755 (date to be determined in 2015).