



State of Utah

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DWQ-2017-008596

September 13, 2017

Stephen L. Cheney, General Director  
M/W – Environmental  
Union Pacific Railroad  
1400 Douglas Street, Stop 0910  
Omaha, Nebraska 68179-0910

**Subject:** **Approval of Amended 401 Water Quality Certification with Conditions.**  
Water Quality Certification No.: Amended SPK 2011-00755 March 2, 2015.  
USACE 404 Permit No.: SPK 2011-0755 September 7, 2015 as modified on  
September 23, 2015 and February 9, 2017 (SPK 2011-0755).

**Applicant:** Union Pacific Railroad.

**Project:** “*Permanent East Culvert Closure and Bridge Construction, Great Salt Lake Railroad Causeway,*” Utah Water Quality 401 Certification Application dated January 7, 2014, which is also known as the USACE Clean Water Act Section 404 permit entitled “*Permanent East Culvert Closure and Bridge Construction, Union Pacific Causeway, Great Salt Lake Utah.*”

**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 is part of a bridge that is 180 feet long with an earthen control berm at elevation 4,183 feet that creates an opening 150 feet long and that may be adjusted in the future.

**Location:** The East Culvert was located at UPRR Mile Post 750.53, latitude 41.221 N. and longitude 112.561 W., Box Elder County, Utah. The West Culvert was located at UPRR Mile Post 744.94, latitude 41.223 N. and longitude 112.668 W., Box Elder County, Utah. The new causeway opening will be located at UPRR Mile Post 739.78, latitude 41.221 N. and 112.766 W., Box Elder County, Utah. The locations of the bridge opening, East Culvert, 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: August 1, 2017 – August 30, 2017.

Public

Comments

Received: None

Dear Mr. Cheney:

This 401 Water Quality Certification Letter replaces previous 401 Water Quality Certification letters issued to Union Pacific Railroad (“UPRR”) on December 16, 2013, (“2013 Certification”) and on March 2, 2015, (“2015 Certification”). The purpose of issuing this Amendment to the 2015 Certification is to acknowledge and eliminate Certification requirements that have already been met, to make some changes based on updated information, and to consolidate all remaining Certification requirements from the 2013 and 2015 Certifications into a single Certification.

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 (“UDEQ”), Division of Water Quality (“DWQ”), certifies that the UPRR has provided reasonable assurances that any discharge associated with the permanent closure of the East Culvert of the Great Salt Lake (“GSL”) 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)), the DWQ hereby issues this Water Quality Certification provided the conditions outlined below are met and included in the final United States Army Corps of Engineers (“USACE”) 404 standard individual permit SPK 2011-0755 issued to the UPRR.

The affected portions of the GSL have the following beneficial uses, Utah Administrative Code (UAC R317-2-6):

1. 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
2. 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 *Draft 2016 Integrated Report*, the GSL 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).

The USACE is requested to include all of the conditions of this 401 Water Quality Certification ("Certification") in the USACE 404 Individual Permit SPK-2011-00755 dated Sept. 7, 2015 and issued to the UPRR.

The DWQ acknowledges that the following conditions from the 2013 and 2015 SPK 2011-00755 Certifications have been met:

- All conditions of the 2013 Certification have been met.
- The installation of the Bridge and Control Berm was completed before December 31, 2016, and was completed as outlined in Section 3.7.1 and Appendix A of the January 2015 Compensatory Mitigation and Monitoring Plan ("CMMP"), as required by Condition 1 of the 2015 Certification. Because the installation of the Bridge and Control Berm is now complete, Conditions 4 and 6 from the 2015 Certification no longer apply for this project.
- The January 2015 CMMP was updated as required by Condition 3(H) of the 2015 Certification. The current CMMP is dated May 2016 although it has been updated since that date. The May 2016 CMMP, as updated, has been approved by the Director. See Appendix C of May 2016 Updated CMMP. Conditions (3)(E) and (3)(F) from the 2015 Certification have been incorporated into the CMMP and are therefore applicable through Condition 2 of this Amended 401 Certification.
- A revised Quality Assurance Project Plan ("QAPP"), and Sampling and Analysis Plan ("SAP") has been approved as required by Condition 3(I) of the 2015 Certification.
- All necessary easements, access authorizations, and permits to build the bridge were acquired, as required by Condition 7 from the 2015 Certification.

The following conditions continue to apply to this approval, although some have been revised as described:

1. The UPRR shall allow the Director, or authorized representatives, upon the presentation of credentials and other documents as may be required by law, and in compliance with all UPRR and legal safety requirements, to:

- a. enter upon the 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;
  - d. sample or monitor at reasonable times, for the purpose of assuring Certification compliance or as otherwise authorized by the Utah Water Quality Act, any substances or parameters at any location;
  - e. conduct activities contemplated in the CMMP, as negotiated in the Long-Term Memorandum of Understanding (“MOU”) and,
  - f. inspections during the bridge implementation phase will be at Director’s discretion in coordination with the UPRR. (See Condition 2, 2015 Certification.)
2. The UPRR must adhere to all elements defined in the most recent approved CMMP, unless otherwise approved by the Director. The most recent approved CMMP, dated May 2016 Updated, is included as an attachment to this 401 Certification approval.<sup>1</sup> (See Condition 3, 2015 Certification.)
  3. The UPRR shall report the results of 2012 UPRR/USGS Model update, if required pursuant to CMMP Section 3.10.3, to the DWQ no later than 2 months from the fourth quarter water quality monitoring report. [See Condition (2)(C)(2) and (3), 2015 Certification.]
  4. The UPRR will conduct the required monitoring until the results demonstrate that the Salinity Performance Standard Ranges are being met and trends indicate they will continue to be met into the future. The UPRR may request cessation of monitoring and adaptive management by submitting a Completion Report that includes no less than 5 years of monitoring results after the most recent causeway modification affecting water and salt transfer. If after 60 days of public notice the Director concurs that the Salinity Performance Standard Ranges are met, the Director will approve cessation of monitoring and adaptive management. The

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<sup>1</sup> Some of the requirements of the 2015 Certification, specifically requirements (3)(A), (3)(B), (3)(C)(1), and (3)(C)(2) have been removed from this 401 Certification because the substance of those requirements are addressed in the CMMP, although in some instances, changes have been made as a result of updated information. See CMMP Sections 3.9.2 and 3.10.3.

Completion Report will document the results of the monitoring during the agreed permit monitoring period after the bridge and berm completion, and describe any long-term changes in flow and salt transfer associated with the project in relation to lake salinity and the beneficial uses of the GSL, mitigation objectives, anti-degradation policy, numeric criteria, and narrative standards. If the Completion Report is not approved, the Director will provide the UPRR with a detailed description of the deficiencies and the 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. The UPRR and the DWQ shall meet and consider which aspects of the monitoring and adaptive management program should continue and any other additional terms required for the Completion Report. [See Condition (3)(D), 2015 Certification.]

5. A Long-term Management and Memorandum of Understanding (MOU) will be drafted that defines the DWQ's, the UPRR's, and the Utah Department of Natural Resource's (UDNR) legal, financial, and regulatory role relating to the modifications of and access to the control berm and causeway opening 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 May 2016 CMMP, Section 3.10.2 and Condition 4. The proposed MOU must be public noticed for a minimum of 30 days. [See Condition (3)(E), 2015 Certification.] The UPRR acknowledges that DWQ is entering into a separate MOU with UDNR Division of Forestry, Fire and State Lands to further define their individual agency roles related to the Causeway Opening.
6. Determination of compliance with the Causeway Opening Geometry Performance Standards 1, 2, and 4 of the May 2016 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 the section entitled *Causeway Opening Geometry Performance Standards* of the May 2016 CMMP, Section 3.9.1, Table 3-5. [See Condition (3)(F), 2015 Certification.]
7. Quarterly water quality data monitoring reports to document compliance with the Performance Standards referenced in the May 2016 CMMP, Section 3.9.2, Table 3-7 will be submitted to the DWQ within 45 days of a sampling event or as otherwise approved by the Director. The annual report shall be submitted by February 1<sup>st</sup> of each year following the reporting period. All annual reports will be approved by the Director in writing. If the annual report is not approved, the Director will provide the UPRR with a detailed description of the deficiencies and the 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. [See Condition (3)(G), 2015 Certification.]

8. 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 UDEQ Spills Hotline at (801) 536-4123, a 24-hour telephone number. The UPRR agrees to fully remediate any spill or discharge in accordance with all applicable regulations. [See Condition (5), 2015 Certification.]

Please contact Mr. Bill Damery at (801) 536-4354 or at [wdamery@utah.gov](mailto:wdamery@utah.gov) with any questions you may have concerning this 401 Water Quality Certification with Conditions, Amended SPK 2011-00755 March 2, 2015.

Sincerely,



Erica Brown Gaddis, PhD  
Director

EBG/WD/blj

cc: Kathleen Anderson, United States Army Corp of Engineers  
Julia McCarthy, United States Environmental Protection Agency

DWQ-2017-008596