

**GREAT SALT LAKE CAUSEWAY—BRIDGE, EXCAVATED CHANNEL
AND CONTROL BERM**

**MEMORANDUM OF UNDERSTANDING FOR LONG TERM
MANAGEMENT**

Union Pacific Railroad Company (UPRR) hereby enters into this Memorandum of Understanding (MOU) with the Utah Department of Environmental Quality, Division of Water Quality (UDWQ) (collectively, the Parties). This MOU is effective as of the date signed by the Director of the Division of Water Quality.

I. PURPOSE AND SCOPE

- A. The purpose of this MOU is to implement Section 3.13.4 Active Long-Term Management Activities of the Updated Final Compensatory Mitigation and Monitoring Plan (CMMP), dated May 25, 2016, in connection with the Union Pacific Railroad Great Salt Lake Causeway Culvert Closure and Bridge Construction Project (Project). The CMMP, including Section 3.13.4, was developed pursuant to the United States Army Corps of Engineers (USACE), Sacramento District Permit SPK 2011- 0755 (Permit) issued on September 7, 2015, as amended, the UDWQ approval of 401 Water Quality Certification No. SPK 2011-00755 on March 2, 2015, as amended on September 13, 2017, (Certification) and the long term management requirements of USACE's compensatory mitigation regulations set forth at 33 C.F.R. Section 332.
- B. The Permit, Certification and CMMP, together with a Special Use Lease Agreement (SULA), dated September 17, 2015, from the Utah Division of Forestry, Fire and State Lands (UDFFSL), authorize UPRR to place a new opening in the Great Salt Lake Causeway by constructing a 180-ft. bridge, control berm and excavated channel (Causeway Opening) at rail line Milepost 739.78, 41.22 N. & 112.766 W. To satisfy UPRR's compensatory mitigation obligations under applicable regulations and agency approvals, the Project is designed to replace the aquatic functions, i.e., water and salt transfer through the Causeway, that were lost when the West and East culverts were closed in 2012 and 2013, respectively. The Project will also restore the capability for small boat passage through the culverts that existed before the culverts settled within the Causeway and became submerged.
- C. After the new Causeway Opening is installed with the compensatory mitigation bridge, control berm and excavated channel that provide the water and salt transfer functions as specified in the CMMP, UPRR is required to implement a monitoring and adaptive management program, and provide accompanying financial assurances to ensure that the Causeway Opening functions as planned in order to meet the performance standards set forth in the CMMP, Permit and Certification during the permit monitoring period. After five years of UPRR meeting the performance standards without the necessity of adjusting the Causeway Opening for adaptive management purposes, USACE and UDWQ may approve UPRR's request for cessation of monitoring requirements and Permit and Certification obligations.

- D. CMMP Section 3.13 addresses Long Term Management Activities that must occur following USACE and UDWQ approval of UPRR's request for cessation of monitoring and adaptive management requirements. CMMP Section 3.13.4 provides:

After the permit monitoring period ends, as approved by USACE and UDWQ, UPRR would continue activities related to the bridge structure, control berm, and causeway opening that facilitate operation of the causeway and maintenance of the causeway opening within 10% of original as-built conditions or as built conditions resulting from adjustments to the causeway opening pursuant to adaptive management. However, after the permit monitoring period ends, UPRR would not continue long-term lake monitoring and salinity management activities including adjustment of the causeway opening to meet a specified lake salinity goal or objective.

UPRR recognizes that lake managers and stakeholders may wish to conduct lake salinity management activities after the UPRR permit monitoring period ends to achieve a specific North or South Arm salinity or other water quality goal or objective. The adjustable features of the Causeway Opening may be modified to meet these stated objectives. In such cases, UPRR will coordinate as necessary with USACE, UDWQ, and UDFFSL to allow state managers access to this area and participate in design reviews with the State of Utah to ensure that modifications and construction activities conducted at the Causeway Opening area do not jeopardize the structural integrity of the causeway or bridge structure and interfere with the operation of the rail line.

- E. The Parties acknowledge that UPRR and UDFFSL have entered into Special Use Lease Agreement No. 30000055 (SULA), dated September 17, 2015. The Parties acknowledge that UDFFSL is not a party to this MOU and the terms of this MOU are not binding on the UDFFSL. Nothing in this MOU shall be interpreted as amending the SULA or any other existing agreement between the UPRR and the UDFFSL. The Parties agree that this MOU does not establish or alter any property rights and may not be recorded as having any legally binding effect on the property rights of UPRR or UDFFSL.
- F. The Parties to this MOU acknowledge that UDWQ is entering into a separate Memorandum of Understanding with UDFFSL to further define their individual agency roles related to the Causeway Opening. As part of that separate MOU, UDFFSL has agreed to establish a "Causeway Committee" made up of stakeholders active in the management of the Great Salt Lake. The Causeway Committee will serve in an advisory capacity to UDFFSL and UDWQ as provided in that UDFFSL-UDWQ MOU, to become effective on the date signed by the Director of the Division of Water Quality. No conditions agreed to in that separate UDFFSL- UDWQ MOU or agreed to separately among any or all of the UDWQ, UDFFSL or the Causeway Committee will supersede, replace, or negate provisions in this MOU applicable to UDWQ, nor provisions in the SULA. The Parties acknowledge that UPRR and USACE are not parties to that separate UDFFSL-UDWQ MOU, and the terms of that MOU are not binding on UPRR or USACE. Nothing in that MOU shall be interpreted as amending the Permit, Certification or CMMP or any other existing agreement between the UPRR and the UDWQ.

- G. The Parties recognize that, after the five year UPRR monitoring period, the State of Utah or UDFFSL, in consultation with UDWQ, may desire to establish and implement different water and salt transfer objectives than those compensatory mitigation objectives and performance standards established under the Permit and Certification and, therefore, modify the adjustable features of the Causeway Opening. In that regard, the Parties acknowledge that the bridge structure and that portion of the Causeway Opening under the bridge will not be subject to modification pursuant to any currently-existing permit or agreement after it is constructed and that the as-built dimensions of that portion of the Causeway Opening will represent the outer limits of future expansions of the Causeway Opening structures subject to this MOU. The Parties further acknowledge that, pursuant to the SULA, the UDFFSL, in coordination with the UDWQ and the Causeway Committee, would assume long-term management and maintenance responsibility for the adjustable features of the Causeway Opening, and its water and salt transfer functions, if and when such a change commences.
- H. In accord with CMMP Section 3.13.4 and Certification Condition 5, this MOU and the SULA describe certain rights and obligations of the Parties relating to the modification and management of and access to the Causeway Opening after the UPRR Permit monitoring period ends pursuant to the Permit and Certification. The parties acknowledge that, in the event such actions are pursued, they could necessitate issuance or amendment of federal (including USACE) and/or state permits or approvals, including a release and/or transfer of applicable UPRR long term management responsibilities under the Permit, Certification and CMMP. This agreement shall be interpreted in accordance with the laws of the State of Utah. In entering into this agreement, none of the Parties is relinquishing its rights, authorities or duties.

NOW, THEREFORE, the Parties agree to the following rights and obligations after the permit monitoring period:

II. RIGHTS AND OBLIGATIONS OF UPRR

- A. UPRR will, at its own expense:
1. Continue to maintain the Causeway and bridge structure as required by applicable permits and agreements and as appropriate and necessary for rail operations.
 2. Continue to maintain the Causeway Opening within 10% of original as-built conditions or as built conditions resulting from adjustments to the Causeway Opening pursuant to adaptive management as provided in the CMMP prepared in accordance with applicable USACE regulations pertaining to long term management until such time as the State obtains any necessary permits and approvals, including release or transfer of applicable UPRR long term management responsibilities under the Permit, Certification and CMMP, and commences modification of any of the Causeway Opening structures.

- B. After the UPRR Completion Report¹ has been approved by USACE and UDWQ, UPRR will allow UDWQ access to the Causeway Opening area for monitoring described in this MOU Section III.A to ensure sufficient water quality data collection.
- C. Should the UDFFSL, after consulting with the UDWQ, determine to investigate or to carry out a modification of the Causeway Opening, UPRR will:
1. Grant access to the Causeway Opening area to the UDWQ or its designated representatives to facilitate such investigations and modifications under the same conditions provided in MOU Section III.B.
 2. Participate in design reviews to ensure that the Causeway Opening modifications and construction activities do not jeopardize the structural integrity of the causeway or bridge structure or interfere with the operation of the rail line.
 3. Cooperate with the parties in the issuance of any necessary permits and approvals, including release or transfer of UPRR's applicable long-term management responsibilities under the Permit, Certification and CMMP.
- D. Should UDFFSL, after consultation with the UDWQ, commence modification of the Causeway Opening pursuant to the SULA, UPRR will:
1. Notify the UDWQ if UPRR observes adverse conditions relating to the adjusted control berm and/or Causeway Opening.
 2. Grant access to UDWQ under the same conditions provided in MOU Section III.B. to facilitate the State's Great Salt Lake management activities and maintenance of the Causeway Opening and its water and salt transfer functions as adjusted from that point forward.
 3. Continue to maintain the Causeway and bridge structures in accordance with MOU Section II.A.

III. RIGHTS AND OBLIGATIONS OF THE UDWO

- A. After the Director-approved Completion Report has been issued to UPRR, UDWQ will assume responsibility for any necessary monitoring of Great Salt Lake water quality associated with the causeway opening. Monitoring activities will be conducted in accordance with MOU Section III.B.
- B. Should the UDFFSL, after consulting with UDWQ and obtaining any necessary permits and approvals, commence any modification of the Causeway Opening pursuant to the SULA to alter water and salt transfer functions, with UDFFSL assuming financial and

¹ Completion Report (includes cessation of monitoring request) refers to CMMP Section 3.10.2 (Updated May 25, 2016) and Certification Condition 4.

regulatory responsibility for long term management of the adjustable features of the Causeway Opening, the UDWQ will:

1. In conjunction with UDFSL's assumption of these responsibilities through any necessary permitting, including permit releases or transfers, acknowledge and accept UPRR's corresponding release and/or transfer under the Permit, Certification and CMMP, of UPRR's financial and regulatory responsibility for the long-term management and maintenance of the adjustable features of the Causeway Opening and the Causeway Opening's associated water and salt transfer functions, while UPRR retains control over and financial and regulatory responsibility for the management and maintenance of the Causeway and bridge structure for railroad operations.
2. Serve as the lead water quality monitoring agency and coordinate with UPRR and USACE as provided herein to ensure sufficient water quality data collection to inform multi-agency decisions.
3. Comply with all UPRR's then current safety requirements.
4. Conduct such activities in a manner to avoid interference with UPRR's operation on the Causeway.
5. Require any DWQ staff, contractor or agent participating in the investigation, water quality monitoring activities and/or Causeway Opening modification to first enter into UPRR's then current right of entry agreement which shall, among other things, require the staff person, contractor or agent to comply with all UPRR's safety requirements and avoid interference with UPRR's operations.
6. Develop any Causeway Opening plans in cooperation with UPRR to ensure that such modifications and associated construction activities do not alter the bridge structure and Causeway Opening under the bridge structure or jeopardize the structural integrity of the Causeway or bridge structure with the operation of the rail line.
7. Assume water quality monitoring responsibility for the Causeway Opening modification including monitoring required for regulatory purposes.
8. Reimburse UPRR for any costs arising from UDWQ water quality monitoring, provided that the parties agree in advance on the tasks that will be subject to such reimbursement.

IV. AMENDMENTS

This MOU may be amended or terminated by the written agreement of all Parties consistent with the CMMP, Permit, Certification and applicable long-term management provisions of the USACE compensatory mitigation regulations set forth at 33 C.F.R. Part 332.

V. CONFLICT RESOLUTION

In the event of any conflict between the parties, the Project Managers for UDWQ and UPRR shall meet to try to resolve the conflict. If the Parties are unable to resolve the conflict within a reasonable time they agree to consult with and consider timely recommendations from the Causeway Committee that are within the scope of this MOU, the Permit, Certification and CMMP to see if a satisfactory solution can be reached.

IN WITNESS WHEREOF, UDWQ and UPRR have caused this Memorandum of Understanding to be executed by their respective, duly authorized representatives as of the day and year first herein above written.

STATE OF UTAH
UTAH DEPARTMENT OF ENVIRONMENTAL QUALITY
DIVISION OF WATER QUALITY
195 North 1950 West, 3rd Floor
PO Box 144870
Salt Lake City, Utah 84114-4870

By: 
Erica Brown Gaddis, PhD, Director, Utah Division of Water Quality

Date: 12/28/18.

Memorandum of Understanding

UNION PACIFIC RAILROAD COMPANY, a Delaware Corporation
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By: 
Eric Gehringer, VP Engineering

Date: 12/20/18

APPROVED AS TO FORM
SEAN D. REYES
ATTORNEY GENERAL

By: 
Bret Randall, Assistant Attorney General

Date: 12/28/2018