

April 4, 2014

File: Br. 739.78 Lakeside Sub

Mr. Water L. Baker, P.E.  
Director  
Utah Division of Water Quality  
Utah Department of Environmental Quality  
195 North 1950 West  
PO Box 144870  
Salt lake City, Utah 84114-4870

Submitted via email to wbaker@utah.gov

RE: Union Pacific Railroad (UPRR) Great Salt Lake Causeway Culvert Closure and Bridge  
Construction Project, Water and Salt Balance Modeling, Final Modeling Report  
Utah Water Quality 401 Certification SPK 2011-00755, issued December 16, 2013  
Condition 4

Dear Mr. Baker:

This letter transmits an electronic copy of the Final Modeling report detailing the water and salt balance model efforts conducted by UPRR, in compliance the Utah water quality 401 certification, SPK 2011-00755, Condition 4. This submittal is also consistent with the schedule provided the U.S. Army Corps of Engineers (USACE) pursuant to NWP 14, Special Condition 6; UPRR's schedule provided UPRR would complete the 3-Step modeling plan by April 4, 2014.

The Final Report summarizes the results of the UPRR 3-Step Modeling efforts as described in the UPRR September 25, 2013 letter. The September 25th letter is attached as Appendix A of the Final Report. Modeling Steps 1 and 2 Progress Reports are included in their entirety as Appendices B and C of this Final Report. Progress Report – Modeling Step 3 detailing the development of the water and salt balance model to simulate 25-years of constant wet, mild and dry hydrology and the response of the lake due to these conditions is included as Appendix D of the Final Report. Modeling Step 3 Progress Report includes appendices with model input data and copies of the model code, input and output files.

This report is submitted along with GRAMA Claim of Business Confidentiality to protect the water and salt balance model code that UPRR has developed, and is included in:

- Modeling Step 1 Report- Appendix B
- Modeling Step 2 Report- Appendix C
- Modeling Step 3 Report- Appendix D

We wish to keep the developed model code confidential, as it includes business confidential information; in addition, it is considered to be draft and in progress until the United States Geological Survey (USGS) completes their review of the model. Once the use of the model review and assessment is completed by the USGS, UPRR will withdraw its Business Confidentiality request. We will transmit model code files under separate cover, next week, with a similar request for business confidentiality.

We acknowledge that model coordinating meetings with the Utah Division of Water Quality designated representative in accordance with condition 4.a.1 have been facilitated, and have held two model review meetings with the USGS, in accordance with condition 4.a.2.

Yours truly,

A handwritten signature in black ink that reads "Mark L. McCune". The signature is written in a cursive style with a large, stylized "M" and "C".

Mark L. McCune, P.E.  
Director Structures Design

CC: Kathleen Anderson, U.S. Army Corps of Engineers  
Jason Gipson, U.S. Army Corps of Engineers  
Cory Angeroth, U.S. Geological Survey  
Chris Bittner, Utah Division of Water Quality  
Leah Ann Lamb, Utah Division of Water Quality  
Bill Damery, Utah Division of Water Quality  
Nick vonStackelberg, Utah Division of Water Quality