

**Utah Lake Water Quality Study
Steering Committee Meeting #8
Meeting Summary
December 2, 2019**

This document includes a list of future meetings, action items, and a brief summary of the discussions. Please review the action item list for tasks assigned to you and/or the Steering Committee in general. A list of attendees can be found at the end of the document.

Upcoming Meeting/Call	When & Where	Suggested Agenda Items
TBD (2020 schedule will be proposed in early January)	TBD	<ul style="list-style-type: none"> ○ Updates on ongoing efforts

I. Action Items

Meeting Summaries	Who	Due Date	Date Completed
1. Share draft Meeting Summary	Facilitation Team	12/11/2019	12/16/2019
2. Review and share comments on summary	SC members	12/18/2019	None Received
3. Finalize summary and post to Dropbox	Facilitation Team	12/20/2019	12/26/2019
Public Engagement	Who	Due Date	Date Completed
4. Share ULWQS flier created by DWQ/ULC with Steering Committee	Facilitation Team	12/6/2019	12/6/2019
Science Panel Information and Studies	Who	Due Date	Date Completed
5. Share Science Panel meeting #6 agenda with SC	Facilitation Team	12/6/2019	12/6/2019
6. Re-organize Dropbox to more clearly provide Science Panel and technical consultant products	Facilitation Team	12/18/2019	12/26/2019
7. Post atmospheric deposition documents to Steering Committee Dropbox	Facilitation Team	12/18/2019 (and ongoing)	12/26/2019

8. Provide an update on the atmospheric deposition monitoring and estimation to Steering Committee following December 10/11 Science Panel Meeting	SP/Mitch Hogsett	12/18/2019	
ULWQS Project Schedule and Funding	Who	Due Date	Date Completed
9. Develop plans for ULWQS meetings (SC and SP) in 2020	Facilitation Team, Co-Chairs, DWQ	01/17/2020	
10. Obtain information on potential funding from EPA and provide update to Steering Committee	DWQ	TBD	
Additional Utah Lake Research	Who	Due Date	Date Completed
11. Post David Richards Report to Dropbox	Facilitation Team	12/18/2019	12/26/2019

II. Meeting Recording

A recording of the meeting (also available on the DWQ website in the near future) can be found at the following link: <http://resolv.adobeconnect.com/p1j0h59smdof/>. Please use the video scroll bar along the bottom of the recording window to find the appropriate time in the webinar recording for the session you would like to watch. There are bookmarks in the 'Events Index' on the left side of the screen identifying each session. Please note that, due to technical difficulties, the first 37 or so minutes have no volume, though the activity in the room (e.g., agenda, slides) can be seen.

III. Key Points of Discussion

Welcome and Agenda Review

Meeting facilitator Paul De Morgan, RESOLVE, welcomed everyone to the meeting and invited the co-chairs to make opening comments. Erica Gaddis and Eric Ellis, ULWQS Steering Committee Co-Chairs, expressed their appreciation for the presence of all Steering Committee members and expressed the importance of the meeting following an extended break since the last Steering Committee meeting.

Mr. De Morgan then asked each of the Steering Committee members, the DWQ staff, and the members of the public to introduce themselves. Following these introductions, Mr. De Morgan went over the agenda and the documents distributed to the members of the Steering Committee. Additionally, Mr. De Morgan went over the ground rules for the meeting.

Science Panel Process Review

Mr. De Morgan presented an overview of the goals of the ULWQS Science Panel and the purpose of the Science Panel as described in the Charter document. He explained the composition of the Science Panel

as described in the Science Panel Operating Principles and the requirements for qualifications of independent and ex-officio panelists.

Mr. Ellis described that the co-chairs have been looking for additional opportunities for public participation in Science Panel meetings and went over a proposed approach for adding public comment periods during Science Panel meetings and not only at the end of the meetings. Under this approach, time will be allocated on the agendas for public participation after major topic sections; however, only individuals present during the entirety of that section would be eligible to participate (though anyone could make a public comment during the open sessions each day). Ms. Gaddis added that they are trying to balance the efficiency of the meetings while also allowing for opportunities for the public to interact with the Science Panelists.

Nominations Process to Refill Science Panel Vacancy

Mr. De Morgan summarized the recent events related to the current vacancy on the Science Panel and the protocol for filling the vacancy. He noted Dr. Jereme Gaeta stepped down from the Science Panel, the co-chairs nominated Mike Mills as his replacement, Steering Committee members requested a nominations process, and the subsequent nomination of three candidates to fill the vacancy. Mr. De Morgan noted that for Steering Committee meetings to proceed a quorum (two-thirds or a minimum of 10) needed to be present. Further, for procedural issues such as the selection of a science panelist, two-thirds of those members present needed to support any recommendations.

Mr. De Morgan then went over the list of individuals who were nominated and who had nominated them. He then yielded to the individuals who nominated candidates and asked them to provide a brief summary of the candidate's expertise and the rationale for their nomination. Ms. Gaddis summarized her nomination of Chris Luecke from Utah State University, Eric Ellis summarized his nomination of Mike Mills of the June Sucker Recovery Implementation Program, and Rich Mickelson summarized his nomination of David Richards of OreoHelix Ecological.

EXECUTIVE SESSION: Discussion of Science Panel Nominees

Following a brief period designated for question and answer, the Steering Committee moved into executive session, members of the public were asked to leave the room (and the web meeting room), and the meeting recording was paused. In the executive session the members of the Steering Committee discussed the various nominees and determined who they felt should be added to the Science Panel.

Science Panel Membership

Following the executive session, Mr. Ellis asked the members of the Steering Committee if they could support the seating of Mike Mills to the Science Panel, as he received the most support from members of the Steering Committee during the executive session. The members of the Steering Committee unanimously expressed their support for seating Mr. Mills.

Update on Technical Consultant and Science Panel Activities

Mike Paul, Tetra Tech lead technical consultant working for the Science Panel, provided an update on the various work products that his team is developing. Mr. Paul provided updates on the Numeric

Nutrient Criteria Technical Framework, Conceptual Models, data characterization, Uncertainty Guidance document, data gaps analysis, and the Strategic Research Plan. Mr. Paul explained that the Science Panel will be discussing these various work products at their upcoming meeting on December 10-11. The majority of these tasks are either complete or close to complete, and the Strategic Research Plan should be complete in the March – June time frame.

Mitch Hogsett, Forsgren Associates and Science Panel chair, provided an update on the three near-term research projects (nutrient bioassays, sediment-water interactions, paleolimnology) currently underway. Mr. Hogsett indicated significant progress has been made in all three studies, however, only preliminary data is available at this point.

Mr. Hogsett then described Science Panel efforts to understand atmospheric deposition of nutrients to Utah Lake and an on-going independent review of efforts to quantify atmospheric deposition undertaken to date. He explained that the two independent reviews should become available to the Science Panel in the upcoming weeks. There were a few questions and some ensuing discussion among the Steering Committee related to the various factors that influence atmospheric deposition of nutrients to Utah Lake and the efforts to quantify this deposition.

Additional discussion ensued related to the ULWQS, the pathway the Science Panel will take to identify numeric nutrient criteria for Utah Lake, and the upcoming Science Panel meeting. Mr. Paul was asked whether the Science Panel has determined how “clean” the lake needs to be to achieve water quality goals. He responded that they have not gotten that far yet in the process. Additionally, Scott Daly, DWQ, explained that DWQ and Tetra Tech are developing a method by which the Science Panel can assemble evidence to describe different potential future scenarios for Utah Lake to then present to the Steering Committee for their feedback on what they feel is preferable.

Mr. De Morgan asked the members of the Steering Committee if they were planning on attending the upcoming Science Panel meeting and whether they would like the opportunity to interact with the Science Panel. Steering Committee members requested the draft Science Panel meeting agenda be shared to assist in their decision of whether to attend. Mr. De Morgan explained that there will be numerous opportunities for public participation on the meeting agenda.

Review ULWQS Budget and Project Needs

Scott Daly, DWQ, went over the ULWQS project budget, sharing what was originally allocated by the Water Quality Board, what has been spent and allocated to date, and what is anticipated for future spending to complete the study. Mr. Daly explained that there will likely be a ~\$1 million budget shortfall for the completion of the study and that DWQ will be looking to project partners to help identify funding sources to complete the study. Ms. Gaddis explained that while it may be possible to approach the Water Quality Board for more funding, she expects some resistance due to the current budget and funding priorities and thinks it would be best to approach other potential funding sources first.

Several questions and comments related to potential funding sources were raised by members of the Steering Committee. The idea of utilizing other studies underway (e.g., one by Timpanogos Special Service District) to answer questions the Steering Committee and Science Panel have identified could be a way to defray costs that would otherwise be borne by DWQ. The possibility of engaging the EPA to improve the transparency of the study and to potentially receive funding support was raised by Ms.

Gaddis. The Steering Committee asked the co-chairs to provide additional information about the specifics of what this arrangement might look like to help them collectively determine whether further exploration is appropriate. Additional ideas for potential funding sources included the Utah Legislature, ratepayers in the Utah Lake watershed, and Utah Lake recreationists.

Introduce Approach for Engaging Legislators in the ULWQS

Ms. Gaddis expressed her desire to improve outreach from the ULWQS to legislators who will ultimately be responsible for approving the outcome of the study. She suggested that the Steering Committee consider ways to engage legislators and to increase their awareness and understanding of the ULWQS.

Rich Mickelson, Timpanogos Special Services District, expressed that he continues to have concerns with the ULWQS process because he feels that POTWs are minimally represented on the Steering Committee.

Members of the Steering Committee expressed that they felt that there had been a long gap between Steering Committee meetings and that they hoped the next meeting would not be in the distant future.

IV. Public Comments

David Richards: I think DWQ asked me to give a presentation at the SP meeting next week on a progress report for 2019 (30 min presentation). Goals for research: increase our understanding of Utah Lake's ecological health and integrity. We cannot focus on only 1 or 2 stressors and are aiming to develop a suite of metrics.

Dan Potts: Encouraged by the progress of the process. I still think one of the largest glaring holes is the lack of representation of sport and food fish anglers on the lake. The anglers use the lake almost year-round and they consume the fish in the lake. I know of 2 fish fries that occurred following HABs on the lake and the fish were excellent.

Juhn-Yuan Su (from Adobe Connect web meeting room): Dr. Brahney (through Scott Daly) has provided recommendations regarding the implementation of atmospheric deposition into the Utah Lake WASP, typically applying such results as steady-state inputs into the model. Will these members (Dr. Gay, Dr. McDonnell, and Dr. Sullivan) provide any additional recommendations (e.g., results implementation methodology for describing atmospheric deposition, such as unsteady-state values, etc.) regarding the implementation of Dr. Brahney's atmospheric deposition values into the model (e.g., Utah Lake WASP)?

V. Wrap Up

Sam Braegger, co-chair alternate, explained that DWQ put together a flier with some general information about the ULWQS and the location of information resources for Utah Lake. He offered to share the flier with the Steering Committee.

The Facilitation Team and co-chairs committed to begin sketching out plans for meetings into 2020.

VI. Participation

Members of the Steering Committee:

- Scott Bird, Utah County Stormwater Association – Stormwater
- Gary Calder, Provo City – Municipal
- Eric Ellis, Utah Lake Commission – Co-Chair
- Erica Gaddis, Utah Division of Water Quality – Co-Chair
- Jason Garrett, Utah County Health Department – Public Health
- Heidi Hoven, National Audubon Society – Conservation and Environment
- Chris Keleher, Utah Department of Natural Resources – Recreation, Fishing, and Sovereign Lands
- Rich Mickelson, Timpanogos Special Service District – POTW
- Jay Olsen, Utah Department of Agriculture and Food – Agriculture
- Dennis Shiozawa, Brigham Young University – Academia
- Garrett Smith, Utah Lake Water Ski Association, Recreation
- Brad Stapley, Springville City – Municipal
- Jesse Stewart, Utah Lake Water Users Association – Ag/Water Rights/Water Users
- George Weekley, US Fish and Wildlife Service – Fish and Wildlife
- Gerard Yates, CUWCD – Water Management of Utah Lake

Alternate Members of the Steering Committee:

- David Barlow, Timpanogos Special Service District – POTW
- Craig Bostock, Utah County Health Department, Public Health
- Sam Braegger, Utah Lake Commission – Co-chair
- Juan Garrido, Springville City – Municipal
- Cory Pierce, Spanish Fork City – Municipal
- Mike Rau, Central Utah Water Conservancy District – Water Management of Utah Lake
- Ella Sorensen, National Audubon Society – Conservation and Environment

Members of the ULWQS Science Panel

- Mitch Hogsett, Forsgren Associates, ULWQS Science Panel (Chair)

Members of the Public:

- Jeff Denblyker, Jacobs
- Mark (Adobe Connect)
- Mike Mills, Central Utah Water Conservancy District
- Renn Lambert, LimnoTech (Adobe Connect)
- Dan Potts, Utah Anglers Coalition, Salt Lake Fish and Game Foundation
- David Richards, Oreo Helix Ecological
- Juhn Yuan Su, University of Utah (Adobe Connect)

Utah Division of Water Quality Staff:

- Scott Daly
- Jodi Gardberg

Facilitation Team:

- Paul De Morgan, RESOLVE
- Dave Epstein, SWCA