Utah Lake Water Quality Study
Steering Committee Meeting #7
Meeting Summary
May 30, 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	*TBD*	○ Updates on ongoing efforts

I. Action Items

Meeting Summaries	Who	Due Date	Date Completed
1. Share draft Meeting Summary	Facilitation Team	June 7	
2. Review and share comments on summary	SC members	June 14	
3. Finalize summary and post to Dropbox	Facilitation Team	June 17	
Public Engagement	**Who**	**Due Date**	**Date Completed**
4. Post the "opinion article" to Dropbox	Facilitation Team	May 31	May 31
5. Copy members of the Steering Committee when sending social media packets to the social media coordinators	Sam Braegger	~Monthly	
Scient Panel Information and Studies	**Who**	**Due Date**	**Date Completed**
6. Determine way (e.g., webinar) for Tetra Tech to engage with SC on conceptual models	DWQ	July 10/11 2019	
7. Share the link to the DWQ Utah Lake Shiny app	Facilitation Team	June 7	
8. Share additional information related to the sediment RFP	DWQ/Facilitation Team	June 12	

9. Respond via email with approval or rejection of DWQ's selection of a team to complete the sediments study	Steering Committee	June 21	
10. Review the Approaches for Developing Numeric Nutrient Criteria Literature Review document	Steering Committee	June 28	
POTW Planning and Upgrades	**Who**	**Due Date**	**Date Completed**
11. Upload meeting presentations (from POTWs/municipalities, Science Panel Chair, etc.) to Dropbox	Facilitation Team	June 14	
12. Develop a Water Reuse discussion for a future Steering Committee meeting	DWQ	Sept/Oct 2019	
Initial Charge (to SP from SC)	**Who**	**Due Date**	**Date Completed**
13. Edit the Charge document to remove the term "future," share with SC, and evaluate support	Facilitation Team	June 21	
14. Re-consider the Charge and the timeline for appropriateness and feasibility (specifically discuss how the last question fits given progress made thus far)	Science Panel	July 10-11	
Algal Treatment RFP	**Who**	**Due Date**	**Date Completed**
15. Share the RFP with the Steering Committee	ULC/DWQ/Facilitation Team	June 7	
16. Share work plans for contractors once they have been developed	ULC/DWQ/Facilitation Team	August 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/pri5w9id0qjs/**. 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.

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, ULWQS Steering Committee Co-Chair, expressed her appreciation for the presence of all Steering Committee members and stated the importance of the meeting to update the Steering Committee on the progress of the Science Panel and their technical consultant. Sam Braegger, ULWQS Steering Committee Co-Chair alternate (to Eric Ellis), welcomed everyone to the 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.

Update on Public Engagement Activities

Sam Braegger, Co-Chair alternate, gave an update on the public engagement activities related to the Utah Lake Water Quality Study. He described how the project website has been both revamped and improved and described the social media posts related to the ULWQS that have been made by the Utah Lake Commission (ULC) in recent months. Mr. Braegger went further to describe the reach that the social media posts have had (# of views) and the improved reach from additional sharing by partner organizations (such as those represented on the Steering Committee). He also presented a series of three potential social media posts that had been drafted by the ULC, which were approved by the Steering Committee during the meeting. Mr. Braegger described a proposed approach for him to share media packets with the social media coordinators for each organization on a (roughly) monthly basis for them to distribute. Finally, he shared a list of summer festivals that the ULC will attend to promote the ULWQS. He suggested that members of the Steering Committee could consider attending the events and helping to man the ULC's booth at each event if they are available and interested.

Update on Science Panel Activities

Mitch Hogsett, ULWQS Science Panel Chair, provided an update on the recent progress made by the Science Panel and their technical consultant as they work to answer the questions in the Charge document developed by the Steering Committee. Mr. Hogsett described the work products that have been under development including the approach (to developing numeric nutrient criteria) framework document, conceptual models (of Utah Lake), data characterization, uncertainty guidance document, data gaps analysis, and strategic research plan. Members of the Steering Committee asked several questions about the details of the conceptual model of Utah Lake and the analysis of water quality data which sparked some discussion. Additionally, members of the Steering Committee requested that certain materials related to the work products be shared with the group. Mr. Hogsett agreed to relay some of the Steering Committee's questions to the Science Panel for their consideration and response. The Facilitation Team committed to making the materials available to the Steering Committee.

Utah Lake Near-Term RFPs

Scott Daly, DWQ, described the process that the Science Panel (and their technical consultant) went through to develop and prioritize specific research questions from the Charge document developed by the Steering Committee. Mr. Daly explained that the Science Panel developed numerous ideas for research studies to address the questions posed in the Charge. Following a prioritization exercise, three of the research studies were prioritized for the summer of 2019 including a nutrient bioassay experiment, a benthic sediment study, and a paleo-limnological study. He continued to explain that RFPs for all three studies were developed by the technical consultant under the direction of the Science Panel and were released by DWQ. An evaluation team (consisting of the independent members of the Science Panel and Mr. Daly) selected proposals for funding for two of the three studies (bioassay and paleo). Members of the Steering Committee requested the names of the individuals on the teams that were selected for funding, and additional information about why they were selected instead of the other teams that submitted proposals. Mr. Daly responded and went on to explain that more information had been requested from the groups that submitted proposals for the sediments study and that a selection would be made as soon as the selection committee is able to obtain that information and review the updated proposals.

Mr. Daly explained that DWQ would like to solicit approval from the Steering Committee for hiring the teams selected by the evaluation committee for the bioassay and paleo studies. The Steering Committee agreed to approve the selections of contractors for the two studies and an agreement was made for the work plans for all three studies to be shared with the group as soon as they are developed. DWQ will share updated information related to the responses to the sediments RFP once they become available. Mr. Daly explained that with this approval from the Steering Committee, DWQ will work to solicit approval on all three studies from the Water Quality Board at their June 26 meeting and proceed with the studies as soon as the work plans have been finalized.

<u>Update on POTW Planning and Upgrades</u>

Erica Gaddis, Steering Committee Co-Chair, gave an overview of the 2015 Technology-Based Phosphorus Effluent Limit (TBPEL Rule) requiring publicly owned treatment works (POTW) compliance with the 1 mg/L total phosphorus standard by January 1, 2020. Ms. Gaddis explained that the rule allowed for variances under a series of different conditions. She continued to describe the situation for each of the municipalities with POTWs surrounding Utah Lake and how each of them is planning to enter into compliance with the rule. Several questions and comments from members of the Steering Committee related to the potential for reuse of treated effluent led to some discussion related to the potential for diminished inflows to Utah Lake. Mr. De Morgan suggested that there may be interest among the group in an organized discussion of water reuse at a future meeting. Several members of the Steering Committee confirmed that they thought this would be a good idea.

Following Ms. Gaddis' summary, representatives from several of the organizations affiliated with POTWs that discharge to Utah Lake provided more detail on each of their planning efforts as they relate to compliance with the TBPEL Rule. Juan Garrido (Springville City) presented on Springville's efforts to evaluate chemical treatments to their wastewater to enter into compliance with the TBPEL Rule. Mr. Garrido explained that once the city has a better understanding of which treatments are most promising, it will apply for a variance from DWQ.

Rich Mickelson, Timpanogos Special Service District (SSD), gave a presentation on Timpanogos SSD's efforts to comply with the TBPEL Rule. Timpanogos received a variance from DWQ to meet the TBPEL

Rule in a phased approach, where the POTW reduces the concentration of phosphorus in its effluent every couple of years. Mr. Mickelson explained that Timpanogos is considering experiments to evaluate the effects of nutrient reduction on Utah Lake.

Neal Winterton, Orem City, explained that the city is reaching the capacity of their current facility and they are evaluating upgrade options as they are considering expansion. Mr. Winterton explained that Orem is looking at water reuse and utilizing treated effluent as irrigation water for city fields and a golf course.

Cory Piece, Spanish Fork City, explained that Spanish Fork City's plant is old and has a lot of differed maintenance needs. Mr. Pierce explained that the city hired a consultant to evaluate upgrading or replacing their facility. He also referenced a regionalization study that is taking place to consider whether a regional plant (shared among several municipalities) would make the most sense.

Scott Daly, DWQ, gave an overview of DWQ's efforts to analyze the potential effect of various alternatives for wastewater discharge locations into Utah Lake. Mr. Daly explained that DWQ is developing a water budget for Provo Bay to investigate how the water balance would change under different management scenarios. This effort is partially on hold as the various municipalities explore the regional plant concept.

Initial Charge from the Steering Committee to the Science Panel

Paul De Morgan, RESOLVE, explained that some questions had recently arisen regarding the Charge from the Steering Committee to the Science Panel, and it seemed appropriate to revisit the Charge with the entire Steering Committee. Mr. De Morgan briefly went over the document and the 4 high-level questions contained within. Questions (from members of the Science Panel) regarding the feasibility of the timeline outlined for the study (in the Scope document) and the way in which the fourth high-level question is presented in the Charge resulted in discussion among the Steering Committee. Members of the Steering Committee suggested that the Science Panel should be engaged to re-evaluate the Charge and the project schedule. One of the concerns from members of the Steering Committee was that the "future high-level question" in the charge is presented in a way that suggests it may be undertaken in the distant future and not during Phase 2 of the ULWQS. A suggestion was made to remove the word "future" from the heading above the final high-level question. The Steering Committee agreed that this might help to alleviate the concern and the Facilitation Team committed to making the edit and sharing the redline version with the Steering Committee.

Update on Utah Lake Algal Treatment RFPs

Jim Harris, DWQ, gave an overview of the Utah Lake Commission (ULC)/DWQ effort to implement exploratory HABs treatments on Utah Lake. Mr. Harris explained that a Request for Information (RFI) had been released to solicit information regarding treatment options for HABs on lakes; however, the responses to the RFI did not disclose cost or proprietary ingredients for the chemical treatments. Following up on the RFI, the ULC/DWQ released an RFP for experimental treatments for HABs to get a better sense of cost and safety associated with treatments. Ms. Gaddis added that the process was triggered by a request from a legislator (last year) to apply a copper sulfide treatment to the whole lake, which was modified to target marinas as to not affect the whole lake. Mr. Harris explained that responses to the RFP are due within 1 week and 2-4 proposals will be selected, representing a variety of treatments (biological, chemical, mechanical, etc.).

IV. Public Comments

David Richards, Oreo Helix Consulting: We have already come to figuring out "how clean is clean." A multi-metric index of biological integrity has been developed for Utah Lake looking at criteria for different species. By looking at each species' requirements, you can get a sense of whether or not the lake is clean enough. A report is available for review.

LaVere Merrit: when I got involved in Utah Lake 55 years ago a lot of people had a lot of questions. When I find out I am wrong about something, I am happy to accept that. Utah Lake is very resilient, but it is what it is. Not a strawberry, not a Tahoe, but it will stay what it is. It is a shallow, alkaline, slightly saline, eutrophic lake in a semi-arid region. The nutrient issue is a huge one because it is a unique situation. We attempt to analyze Utah Lake in the context of what has been done everywhere else. There is a significant amount of data that suggests that nutrients could be a moot issue on Utah Lake. Excited about the research and data collection. I'm not a dog in a manger, but we have a large challenge.

V. Participation

Members of the Steering Committee:

- Scott Bird, Utah County Stormwater Association – Stormwater
- Craig Bostock, Utah County Health Department – Public Health
- Sam Braegger, Utah Lake Commission – Co-Chair (alternate to Eric Ellis)
- Chris Cline, US Fish and Wildlife Service – Fish and Wildlife
- Erica Gaddis, Utah Division of Water Quality – Co-Chair
- Juan Garrido, Springville City – Municipal
- 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
- Cory Pierce, Spanish Fork City – Municipal
- Dennis Shiozawa, Brigham Young University – Academia
- Jesse Stewart, Utah Lake Water Users Association – Ag/Water Rights/Water Users
- Neal Winterton, Orem City – Municipal
- Gerard Yates, CUWCD – Utah Lake Management

Alternate Members of the Steering Committee:

- Laura Ault, Division of Forestry, Fire and State Lands – Recreation, Fishing, and Sovereign Lands
- David Barlow, Timpanogos Special Service District – POTW
- Jim Harris, Division of Water Quality
- Jon Hilbert, Jordan Valley Water Conservancy District – Ag/Water Rights/Water Users
- Dave Norman, Lehi City – Municipal
- Mike Rau, Central Utah Water Conservancy District – Water Management of Utah Lake

Members of the ULWQS Science Panel

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

Members of the Public:

- Jeff Denblyker, Jacobs
- Andrew Follit
- Mark Illum (Adobe Connect)
- Renn Lambert
- LaVere Merrit
- David Richards, Oreo Helix
- Ryan Sullit
- Juhn Yuan Su, University of Utah (Adobe Connect)

Utah Division of Water Quality Staff:

- Scott Daly

Facilitation Team:

- Paul De Morgan, RESOLVE
- Dave Epstein, SWCA