

Utah Lake Water Quality Study: Stakeholder Process
Science Panel Calls #1 and #2
Call Summaries
July 11-12, 2018

This document includes a list of future meetings/calls, action items, and a brief summary of the discussions on each day. Please review the action item list for tasks assigned to you and/or the Science Panel in general (highlighted in yellow). A list of attendees, for each day, can be found at the end of the document.

Upcoming Meeting/Call	When & Where	Suggested Agenda Items
ULWQS Utah Lake Tour	<i>Wednesday, August 8</i> <i>8:30 a.m. to 12:00 p.m.</i>	○ Boat tour of Utah Lake to look at lake conditions and characteristics
ULWQS Science Panel Meeting #2a	<i>Wednesday, August 8</i> <i>1:00 p.m. to 6:00 p.m.</i>	○ Discuss sub questions to address in answering initial high-level questions; discuss what to share with ULWQS
ULWQS Steering Committee/Science Panel Joint Meeting #2	<i>Thursday, August 9</i> <i>8:30 a.m. to 12:00 p.m.</i>	○ Present on HABs; discuss SP efforts thus far; determine what SC can finalize in terms of questions
ULWQS Science Panel Meeting #2b	<i>Thursday, August 9</i> <i>1:00 p.m. to 4:30 p.m.</i>	○ Initiate efforts to develop conceptual map, identify gaps in knowledge and research that will be needed, and work plan development
ULWQS Science Panel Calls	<i>TBD; late-August</i>	○ TBD

Action Items

Meeting Summaries	Who	To be Completed by
1. Share draft Meeting Summary for Science Panel Calls #1 and #2	Facilitation Team	Thursday, July 19
2. Review and submit any comments on the draft meeting summary	Science Panel	Thursday, July 26
3. Finalize meeting summary	Facilitation Team	Friday, July 27

Initial Charge – SP Review	Who	To be Completed by
4. Share a clean version of the draft Initial Charge document (with proposed sub-questions and notes) with SP	Facilitation Team	COMPLETED
5. Review and provide comments on the draft Initial Charge regarding modifications and/or additions	Science Panel	Thursday, July 26
Initial Charge – SC Review	Who	To be Completed by
6. Share track changes High-level questions (per SP discussions) with SC for review and approval	Facilitation Team	COMPLETED
7. Provide approval of updated High-level questions (or comments on questions)	Steering Committee	Monday, July 23
August 8-9 SP and Joint SP/SC Meetings	Who	To be Completed by
8. Develop and share schedule and draft agendas	Facilitation Team	Friday, July 27
9. Plan potential field trip/watershed tour	DWQ/Facilitation Team	Friday, July 27
Other Items	Who	To be Completed by
10. Share SP letter with Dr. Merritt regarding his email and attachments	Mike Brett on behalf of the Science Panel	ASAP
11. Provide comments on the ULWQS Phase I Report	Science Panel	Thursday, July 26
12. Share literature review deliverable with SP	DWQ	Friday, July 27
13. Schedule the late-August SP calls	Facilitation Team	Friday, July 27
14. Propose path forward regarding possible reopening of the Science Panel nominations process	ULWQS Co-chairs	Friday, July 27

Day 1: Wednesday, July 11; 10:00 a.m. to 12:00 noon

I. Key Points of Discussion – July 11

A recording of the July 11 meeting (also available on the DWQ website in the near future) can be found at the following link: <http://resolv.adobeconnect.com/pmwtungtaqpi/>. 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. In addition, a 'recording agenda' is attached at the end of the summary which also provides the timestamps for when each session begins in the webinar recording.

UDWQ: Update on Phase One Report

Jake Vander Laan, Utah Division of Water Quality (DWQ), presented a brief summary of the data presented in the ULWQS Phase I Report. Whole-lake summaries and patterns of spatial variability were presented for algae, secchi depth, total phosphorus, and trophic indicators. Additionally, Mr. Vander Laan demonstrated the data viewer application on the DWQ website and encouraged the Science Panel to explore the data viewer application on their own. Several comments from members of the Science Panel indicated that they have already begun to review data on the application.

Several questions were raised by members of the science panel regarding the basis of trophic state indicators and patterns of spatial heterogeneity in the lake and some discussion of these topics ensued. Scott Daly, DWQ, reiterated that the Phase I Report is in a draft stage, although DWQ would like to finalize the report soon. He solicited input (edits and comments) from the Science Panel in the next couple of weeks no later than Thursday, July 26.

UDWQ: Update on Literature Review Task

Mr. Daly gave an update on the literature review of the ULWQS bibliography. DWQ has contracted with an organization to perform the review who will be submitting their first deliverable (a summary of a select group of studies) at the end of July. Mr. Daly mentioned that one member of the Science Panel provided input on which studies from the bibliography should be prioritized in the literature review. DWQ will receive a draft literature review document on Thursday, July 19 and will strive to share a final version with the Science Panel by Friday, July 27.

Initial Charge to Science Panel from Steering Committee

Paul De Morgan, RESOLVE, mentioned an email that was sent to the majority of the Science Panel members and the Steering Committee from a ULWQS stakeholder, which resulted in an email exchange with one of the members of the Science Panel. Mr. De Morgan clarified that correspondence and outreach with the Science Panel should go through the Steering Committee based on the process that has been established (or through public comment avenues). The stakeholder that sent the initial email has sent very similar information to DWQ, legislators, and others over the years, and his hypotheses have gotten a lot of attention. The initial discussion among the Science Panel was that the information shared via the email appeared to be largely based on opinions and that the information should go through a peer-review process for it to be more seriously considered by the Science Panel. However, the group did note that there were some good questions (or unknowns) embedded within the document which could inform their identification of questions during the process. The Science Panel agreed to author a formal response to the stakeholder.

Dr. Erica Gaddis, ULWQS Steering Committee Co-Chair and DWQ Director, described the Science Panel Charge document (from the Steering Committee) and how it was developed. The Science Panel then discussed the document with an eye toward understanding how the document frames the role of the Science Panel and the expectations for their efforts through the ULWQS. In response to questions from

Science Panel members, it was clarified that the Science Panel is not expected to provide the answers to the questions included in the Charge document, but rather develop a strategy to come up with the information needed to answer the questions. A lengthy discussion ensued where edits to the wording of the high-level questions provided in the Charge document were suggested and the questions were edited by Mr. De Morgan during the discussion. Additionally, the Science Panel began to generate ideas for sub-questions that would be important to answer to be able to respond to the high-level Charge questions. The discussion of sub-questions was to be continued the following day during SP Call #2. Mr. De Morgan stated that the Facilitation Team along with Scott Daly (DWQ) would do a light edit to the Charge document based on the discussion during the call and would sent it out to the Science Panel later in the afternoon.

II. Public Comments – July 11

Two members of the public expressed their desire to speak during the public comment period.

- Dan Potts, Utah Anglers Coalition: Mr. Potts spoke on the turbidity in Goshen Bay. He stated that commercial fisherman generally focus their carp removal efforts in Goshen Bay, maybe the abundance of carp in the area helps to explain the turbidity there.
 - Mr. Potts suggested that another sub-question might be to try to tie the various management actions that have been done to the lake to the changes in the ecology of the lake could be helpful
- David Richards, Oreo Helix Consulting: Dr. Richards provided a comment on the paleo study: if you not aware, Utah lake has a very diverse mollusk assemblage that could tell you a lot about the ecology. Also, the midge assemblage could help to tell how things have changed over time.

Day 2: Thursday, July 12; 10:00 a.m. to 12:00 noon

III. Key Points of Discussion – July 12

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/pc9qx90u82iy/>. 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. In addition, a 'recording agenda' is attached at the end of the summary which also provides the timestamps for when each session begins in the webinar recording.

Initial Charge to Science Panel from Steering Committee

Paul De Morgan, RESOLVE, asked if anyone would like to share any reflections on the discussion from the previous day's call, but did not receive any comments from the Science Panel. He then presented edits made to the Charge document overnight which were intended to reflect the comments provided during the previous day's discussion (the document had been shared the evening before).

The Science Panel then continued going through each high-level question to identify the sub-questions that would need to be answered in order to address the high-level questions. A number of sub-

questions were identified by the Science Panel and were added to the Charge document during the call. At the end of the discussion the Facilitation Team committed to sharing both redline and clean versions of the updated Charge document to the Science Panel for their review and comment.

Science Panel Membership and Composition

Dr. Erica Gaddis, ULWQS Co-Chair and DWQ Director, explained how the ULWQS Steering Committee originally went about selecting the ULWQS Science Panel. Potential members were nominated and through an extended process 11 scientists were selected by consensus of the Steering Committee. Shortly after the selection of the Science Panel was finalized, one of the 11 Panelists stepped down, leaving the Science Panel with 10 members. Dr. Gaddis explained that a specific number of panelists was never defined for the Science Panel, 11 had been selected based on their expertise and experience but there is no requirement for a specific number of panelists. During the June 13 Steering Committee Meeting #4, a member nominated a new scientist to take the place of the individual who had stepped down from the Science Panel. The response from the Steering Committee to this nomination was that if any new individuals were to be considered for inclusion on the Science Panel, all members of the Steering Committee should have the opportunity to nominate potential panelists for consideration. The Steering Committee decided that the Science Panel should be queried to see whether they feel there is missing expertise on the Panel and whether an additional scientist should be identified.

Mr. De Morgan posed the question regarding whether specific expertise is missing from the Science Panel at this time. Two members of the Science Panel queried the rest of the Panel as to whether there was sufficient expertise in phosphorus and ecosystem biochemistry and experience with large scale projects. The response from the rest of the Science Panel was that all of those areas are adequately covered by the existing Science Panel.

A member of the Science Panel provided an unsolicited endorsement for the individual who had been suggested as a replacement. Mr. De Morgan stated that the decision to add additional members to the Science Panel ultimately resides with the Steering Committee co-chairs. Dr. Gaddis indicated she would be following up with her Co-chair, Eric Ellis, and would let members know the proposed next steps.

ULWQS Schedule (Focus on August 8-9 Meetings)

Mr. De Morgan briefly described the schedule for upcoming meetings of the ULWQS Science Panel and the Steering Committee on August 8-9, 2018. He mentioned that the Facilitation Team and DWQ are working on scheduling a field tour of Utah Lake for August 8 and queried the Science Panel to get a sense of their interest in attending the field tour. All members of the Science Panel able to attend the August 8-9 meetings responded that they would like to participate in the field tour. Mr. De Morgan stated that the Facilitation Team will be sending out an updated version of the meeting agenda and will reach out to the members of the Science Panel who did not participate in the call today to see if they are interested in participating in the field tour. The Science Panel suggested the planners consider holding the field trip the morning of August 8 as opposed to the afternoon, primarily to address potential weather-related concerns.

IV. Public Comments – July 12

Two members of the public expressed a desire to provide public comments.

- Mike Mills: Mr. Mills, the June Sucker RIP program coordinator, stated that he would like to provide some clarifications on the carp population and removal efforts. Three different carp exclusion studies were completed from the mid 90's through 2004. Although these were small in scale they might be helpful to the ULWQS. He suggested that the Science Panel should reference the Miller/Crowl publication (2004). It has been difficult to track the history of carp introduction and effects. Also, he mentioned a newspaper article from 1918 where people complained about the loss of macrophytes. And then conditions were amplified in the 1930's with severer drought. He stated that the carp population over the past 6 years is quite a bit different from the mid-1970s and prior to 2012 due to large scale carp removal efforts.
- Dan Potts: Mr. Potts stated that there is no current fisheries management plan for Utah Lake. He thinks that this study will be used to push DWR to develop a fisheries management plan.

V. Participation – July 11 and 12

Meeting Participants (Name, Organization) – July 11

Members of the Science Panel:

- Janice Brahney – Utah State University
- Mike Brett – University of Washington
- Jereme Gaeta – Utah State University
- Mitch Hogsett – Forsgren Associates
- Ryan King – Baylor University
- James Martin – Mississippi State University
- Theron Miller – Wasatch Front Water Quality Council
- Hans Paerl – University of North Carolina

Members of the Public:

- Rebecca Andrus
- John Bratton
- Sarah Hanners
- Mike Mills
- Dan Potts
- David Richards
- Randy Zollinger

State of Utah Staff:

- Scott Daly, Utah Division of Water Quality
- Erica Gaddis, Utah Division of Water Quality
- Jim Harris, Utah Division of Water Quality
- Jake Vander Laan, Utah Division of Water Quality

Facilitation Team:

- Paul De Morgan, RESOLVE
- Dave Epstein, SWCA

Meeting Participants (Name, Organization) – July 12

Members of the Science Panel:

- Mike Brett – University of Washington
- Jereme Gaeta – Utah State University
- Mitch Hogsett – Forsgren Associates
- Ryan King – Baylor University
- Theron Miller – Wasatch Front Water Quality Council
- Hans Paerl – University of North Carolina

Members of the Public:

- Sarah Hanners
- Justin Iberoff
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