

UTAH LAKE WATER QUALITY STUDY

STAKEHOLDER PROCESS

VERSION 10 – APPROVED MAY 12, 2017

STAKEHOLDER PROCESS AND STRUCTURE

INTRODUCTION

The Utah Division of Water Quality (DWQ) initiated a water quality study on Utah Lake in November 2015 to evaluate the role of excess nutrients on the support of designated uses. Phase 1 of the study focused on synthesizing existing information and compiling data into a shared database. Phase 2 of the study will focus on development of any necessary in-lake water quality criteria that are protective of Utah Lake’s designated recreational, aquatic life, and agricultural uses. Notwithstanding the development of water quality criteria for Utah Lake, in particular nitrogen and/or phosphorous, DWQ assures that these criteria will not be implemented into permits before January 1, 2030.

Public outreach efforts outlined for Phase 1 were intended to ensure a collaborative process with engaged stakeholders to guide scientific analyses and regulatory decision making. The existing stakeholder group includes representation from a broad range of interests including the Utah Lake Commission (the Commission), local municipalities, publicly-owned treatment works (POTWs), local universities, water users, wildlife groups, and state, local, and federal agencies. Four water quality subgroups were formed from the larger stakeholder group to address the technical scientific questions associated with each work element of Phase 1.

DWQ and the Commission are proposing a revised stakeholder and scientific review process that includes formulation of a Steering Committee and Science Panel. This process is a refinement of the stakeholder approach developed during Phase 1 and will be used to guide completion and review of Phase 1 work elements as well as develop and execute a Phase 2 study that will result in recommendations for water quality criteria. The structure and charge of these groups are intended to gain broad acceptance of the process and its outcomes through a consensus based, transparent, scientifically objective, and publicly accessible approach. The charter document presented below discusses the purpose, objectives, duties, and composition of each group and the mechanisms by which the groups will interact.

STAKEHOLDER STRUCTURE

The composition and structure of the Steering Committee and Science Panel presented in this charter document reflect the interests and expertise present in the existing stakeholder group. The Steering Committee is structured as an interest-based group representing stakeholders with a key interest in the outcomes of the Phase 1 and Phase 2 studies. The Science Panel is structured as a discipline-focused group composed of members with specialized scientific expertise relevant to the unique characteristics and processes present in Utah Lake.

Figure 1 presents a schematic of the stakeholder process including the Steering Committee and Science Panel, and their relationships with existing Utah Lake stakeholders, the public, the Commission, and DWQ. An overview of the responsibilities of each are presented below.

UTAH DIVISION OF WATER QUALITY

DWQ will co-chair the Steering Committee with the Commission and provide staff support to the Steering Committee and Science Panel, including a facilitator, if necessary. DWQ will seek nominations for and finalize the composition of the Steering Committee, Science Panel, and their charters with

STAKEHOLDER PROCESS AND STRUCTURE

input from the Commission and other stakeholders. The membership of the Science Panel and finalization of its charter will be established by the Steering Committee with DWQ consent. The expected product of the Phase 2 Utah Lake Study is the adoption of any necessary in-lake water quality criteria by the Utah Water Quality Board. DWQ will forward the recommendations from the Steering Committee and the Commission directly to the Water Quality Standards Work Group and the Utah Water Quality Board for their consideration.

The Utah Water Quality Board will consider all recommendations of water quality criteria for adoption from the Steering Committee and the Commission. DWQ will coordinate with the Water Quality Standards Work Group, the Utah Water Quality Board, and the U.S. EPA to obtain formal approval and adoption of any necessary water quality criteria.

UTAH LAKE COMMISSION GOVERNING BOARD

The Commission will receive the recommendations of the Steering Committee and make its own recommendation(s) directly to the Utah Water Quality Board through a formal resolution. The Executive Director of the Commission will co-chair the Steering Committee with DWQ and will represent the Utah Lake Commission Governing Board including review and comment on Steering Committee and Science Panel products, decisions, and recommendations.

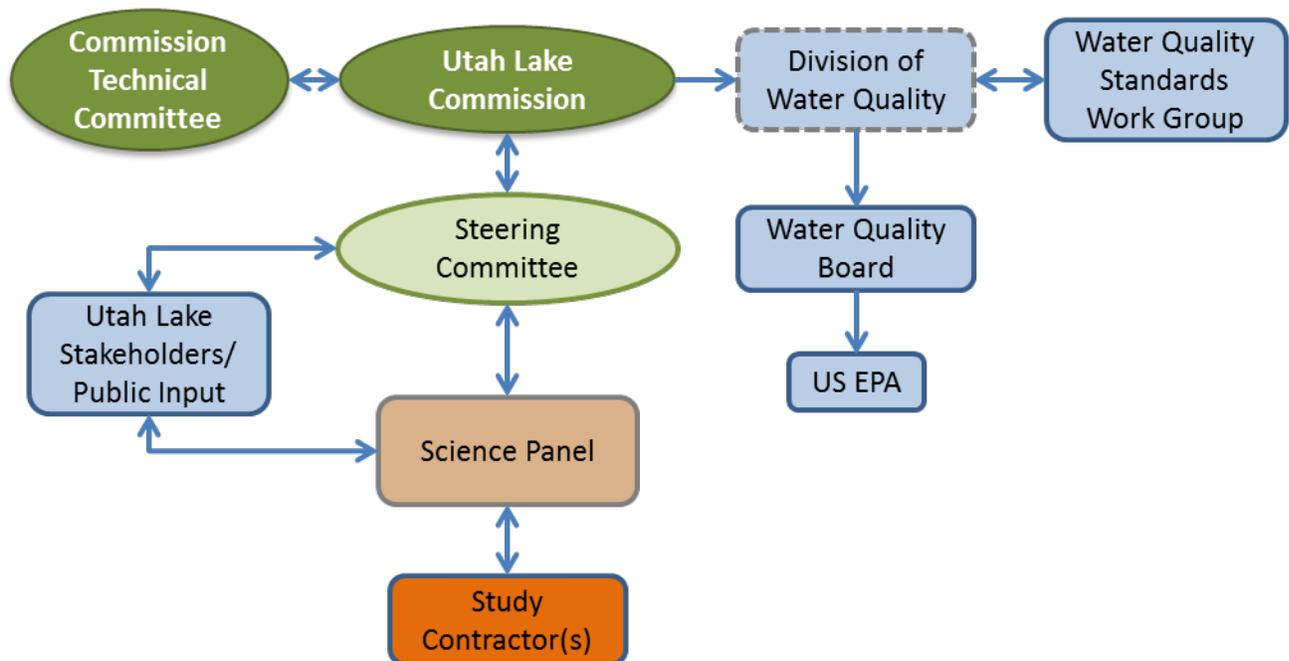


FIGURE 1. FORMALIZED STAKEHOLDER PROCESS FOR UTAH LAKE WATER QUALITY CRITERIA DEVELOPMENT.

The diagram in Figure 2 (at the end of this document) presents a detailed visual representation of the stakeholder process, scientific study process, and process for forwarding water quality criteria recommendations to the Utah Water Quality Board. Figure 2 also complements the discussion of Steering Committee and Science Panel **objectives** and **member duties** discussed in the following charter documents.

STEERING COMMITTEE CHARTER

PURPOSE

The Steering Committee is charged with guiding water quality criteria development and recommending in-lake water quality criteria, which are protective of designated uses and sustain the natural resources of Utah Lake, to the Commission and the Utah Water Quality Board. Water quality criteria recommended by the Steering Committee will be considered by the Utah Water Quality Board for adoption following review and input from the Commission.

OBJECTIVES

1. Create a partnership among stakeholders to:
 - a. Gain broad acceptance of process and results through a consensus based approach but make provisions for majority and minority recommendations to be noted and conveyed to the Commission and the Utah Water Quality Board should consensus not be achieved;
 - b. Provide access to scientific and policy expertise;
 - c. Coordinate multiple funding sources of willing stakeholders to ensure efficient use of public funds and to promote collaborative scientific research;
 - d. Provide regular project status updates to the Commission and Utah Lake stakeholders; and
 - e. Establish how voting on decisions will occur.
2. Conduct a transparent public process by:
 - a. Utilizing a professional facilitator to conduct Steering Committee and Science Panel meetings;
 - b. Identifying and involving interested stakeholders;
 - c. Accepting public input and comment;
 - d. Sharing results; and
 - e. Seeking consensus.
3. Develop goals and objectives for the Utah Lake Water Quality study.
4. Establish and maintain a Science Panel.
 - a. Develop selection process to evaluate Science Panel member qualifications
 - b. Select Science Panel members with demonstrated expertise in respective field of study
5. Coordinate with DWQ to ensure the Utah Lake water quality criteria development approach meets state and federal site-specific standard development guidelines.
6. Acknowledge uncertainty associated with proposed water quality criteria in the recommendations to the Utah Water Quality Board.
7. Provide majority and minority recommendations for any necessary water quality criteria directly to the Commission for review and comment.
8. Provide majority and minority recommendations for water quality criteria directly to the Utah Water Quality Board.

STEERING COMMITTEE CHARTER

MEMBER DUTIES

- Participate in all Steering Committee meetings per year.
- Nominate and select Science Panel members to meet expertise guidelines described in Table 2 of the Science Panel Charter.
- Steering Committee members will designate a specific alternate member to serve in their absence. Only the Steering Committee members or their designated alternates have a place at the Steering Committee table and a vote.
- Recruit the active involvement of governmental and non-governmental entities and encourage ongoing collaboration and communication among the private sector and citizens working to protect and improve the water quality of Utah Lake.
- Develop and document formalized goals and objectives for the project.
- Provide a platform for diverse perspectives and ideas while serving all the members of the Steering Committee in working towards the common objectives of the project.
- Approve research work plans from the Science Panel.
- Provide written documentation of meetings and decisions.
- Advise DWQ, the Commission, and Science Panel on activities, progress, and significant findings of the study.
- Consider feedback, comments, and recommendations from stakeholders (including the public), DWQ, the Commission, and the Science Panel.
- Review recommendations from the Science Panel and provide recommendations for Utah Lake water quality criteria to the Commission and the Utah Water Quality Board to include policy and implementation aspects not addressed by the Science Panel.
- Provide written documentation of the Steering Committee consensus or majority opinion, also including a detailed discussion of any minority opinion.
- Provide time for and consider feedback and comments from the public and Utah Lake stakeholders during regular scheduled meetings.

COMPOSITION

The Utah Lake Steering Committee will include sixteen (16) representatives from federal, state, and local government, conservation and recreation organizations, and the regulated community. The DWQ appointee and the Commission Executive Director will co-chair the Steering Committee. For the purpose of voting, each member of the Steering Committee, or his/her designated alternate, will have one vote. A list of member affiliations is provided below in Table 1.

DWQ will request input from the Commission and other stakeholders on Steering Committee membership and will extend invitations to the represented organizations to select their representative to be a member of the Steering Committee. DWQ will approve the Steering Committee composition and membership. Committee members will commit to a three-year appointment term and will identify a specific alternate to represent them in their absence. Each Steering Committee member or designated alternate is expected to attend all regularly scheduled meetings. No member of the

STEERING COMMITTEE CHARTER

Steering Committee may be a member of the Science Panel or a research contractor working on this project.

A preliminary list of members for the Steering Committee includes the following:

TABLE 1. UTAH LAKE STEERING COMMITTEE AFFILIATION AND MEMBERSHIP.

Stakeholder Interest	Affiliation	Alternate
Utah Lake Commission (Co-chair)	Utah Lake Commission, Executive Director	
Water quality (Co-chair)	Utah Div. of Water Quality	
Recreation, fishing, and sovereign lands	Utah Department of Natural Resources	
Agriculture/ water rights/ water users	Utah Lake Water Users Association	
Fish and Wildlife	U.S. Fish & Wildlife Service	
Agriculture	Utah Conservation Commission Zone 3, Utah Department of Agriculture and Food, or local agricultural interest	
Public health	Utah County Health Department	
Recreation	Recreational club, anglers, hunters, or business	
Conservation and environment	Environmental or conservation organization	
Water management of Utah Lake	Central Utah Water Conservancy District or appropriate water manager	
Stormwater	Utah County	
Publically Owned Treatment Works	Municipal or District	
Municipal	City Mayor or designee	
Municipal	City Mayor or designee	
Municipal	City Mayor or designee	
Academia	University Researcher	

⁽¹⁾ Co-chair

MEETINGS

STEERING COMMITTEE CHARTER

Meetings will be held at the Utah Lake State Park Office (4400 W. Center Street Provo, UT 84601). Meetings will be held at least six times per year and initially more frequently as the research program is developed. At least twenty working days' notice of each meeting will be provided to Steering Committee members. Meetings will be conducted by a contracted professional facilitator. Meetings will be open to the public for observation and public input will be facilitated by the meeting facilitator. Meeting agendas and minutes will be maintained by DWQ and posted to a project website. DWQ and the Commission will provide administrative staff support for Steering Committee meetings.

DECISIONS

The goal of the Steering Committee is to work toward a consensus recommendation for water quality criteria necessary to ensure long-term protection of Utah Lake's designated uses. A super-majority, defined by support from three-fourths (12) of all Steering Committee members is required to forward a final consensus recommendation to the Commission and Utah Water Quality Board. Minority opinions will also be forwarded. If a supermajority is not possible, then opinions with position papers will be forwarded for consideration by the Commission and the Utah Water Quality Board. A quorum is defined as two thirds (10) of the members of the committee. Procedural issues require the support of two thirds of the members present at a meeting.

SCIENCE PANEL CHARTER

PURPOSE

The purpose of the Utah Lake Science Panel (Science Panel) is to guide water quality criteria development on Utah Lake by overseeing targeted scientific studies.

OBJECTIVES

1. Develop a scientifically defensible approach for water quality criteria development.
2. Identify gaps in scientific understanding of the Utah Lake ecosystem related to nutrient cycling to be addressed for water quality criteria development.
3. Provide recommendations to the Steering Committee for scientific study objectives required to fill gaps in understanding.
4. Recommend and prioritize studies and their timeframes to the Steering Committee.
5. Review and approve detailed work plans for scientific studies that follow EPA's Guidance on Systematic Planning using the Data Quality Objectives Process (EPA QA/G-4).
6. Develop and execute a process for independent peer review of scientific studies.
7. Develop a process to characterize scientific uncertainty including confidence of scientific findings and quantified measures of uncertainty, where possible.
8. Recommend science-based water quality criteria, if necessary, to ensure long-term protection of Utah Lake's designated uses to the Steering Committee.
9. Guide scientific research by:
 - a. Directing principal investigators and study contractors;
 - b. Defining study objectives;
 - c. Developing appropriate study methods;
 - d. Reviewing, providing input, and participating in data collection efforts; and
 - e. Interpreting and reporting results.

MEMBER DUTIES

- The Science Panel shall:
 - Review and provide recommendations to the Steering Committee on project background, goals, objectives, and decision making procedures.
 - Recommend to the Steering Committee external reviewers to fill expertise gaps as needed throughout the project.
 - Review and advise the Steering Committee on the proposed research program and work plan.
 - Provide recommendations to the Steering Committee on required modifications and prioritization of work elements and timeline.
 - Develop a guidance document to qualify or quantify uncertainty associated with scientific findings.
 - Provide management and oversight of principal investigators and study contractors and their deliverables.
- Provide independent scientific peer review on relevant Utah Lake studies including DWQ's Phase I document and other relevant research reports.

SCIENCE PANEL CHARTER

- The Science Panel shall assist DWQ and the Steering Committee in developing a strategic research program that:
 - Addresses appropriate monitoring, modeling, analytical methods, data management, and research required to meet stated objectives;
 - Develops primary science questions;
 - Reviews and incorporates existing literature on unique features of the Utah Lake ecosystem, including human influences;
 - Identifies and addresses gaps in scientific understanding that may impede the development of water quality criteria for Utah Lake;
 - Incorporates a watershed and ecosystem-wide perspective and recognizes upstream and downstream waterbodies;
 - Strategically prioritizes monitoring, modeling, and research efforts;
 - Implements an appropriate process for independent peer review of monitoring, modeling, and research conducted as part of the research program, including external peer review as warranted;
 - Defines data collection and management methods that facilitate easy access and use of data by all participating agencies and the public;
 - Proactively integrates and addresses regulatory considerations and requirements; and
 - Provides high quality and scientifically defensible approaches, data sets, conclusions, and recommendations.
- The Science Panel shall, on an ongoing basis, review and report and provide recommendations to the Steering Committee on the following:
 - Progress of monitoring, modeling, and research efforts and deliverables toward achieving stated program objectives;
 - Proposals for additional research and funding; and
 - Significant findings and results from technical documents, reports, and other deliverables from the research program.
- The Science Panel shall interpret results of literature and the research program and provide management recommendations to the Steering Committee.
- The Science Panel may collaborate with other scientific groups and consult other scientists in conducting its work, including similar efforts in other states.
- To the maximum extent possible, the Science Panel should seek to integrate this research program with other Utah Lake research efforts to promote a collaborative approach.

COMPOSITION

The Steering Committee will nominate a five- to seven-member Science Panel that will provide independent and unbiased scientific advice to the Steering Committee. The Science Panel should reflect the full range of scientific disciplines required to guide the proposed research program. Candidates may be from the public or private sector. All nominees shall disclose any potential conflicts of interest, any financial relationship or contracts with members of the Steering Committee, DWQ, or other special interests related to Utah Lake. All members of the Science Panel will be unbiased, independent scientists with demonstrated expertise in their respective field of study. Science Panel members must be currently active members of their assigned area of expertise as demonstrated by recent peer-reviewed publications, presentations at scientific meetings, and/or recent experience

SCIENCE PANEL CHARTER

sing applied sciences to manage lake resources. No member on the Science Panel may be a member of the Steering Committee. The Science Panel members will nominate and select one of its members to serve as the panel chair. DWQ will provide final approval of the Science Panel composition, membership, and charter.

Each Science Panel member is expected to attend all regularly scheduled meetings.

Science Panel meetings will be conducted by a professional facilitator at the discretion of the Steering Committee. Panel members will serve a minimum of three years. The Steering Committee will select replacements and additional members as recommended by the Science Panel. DWQ and the Commission will provide administrative and staff support for the Science Panel.

Anticipated disciplines and areas of expertise that should be represented on the Science Panel include: hydrology, wetland science, hydrodynamic modeling, water quality modeling, aquatic ecology, fisheries management, limnology, biogeochemistry, nutrient cycling, phycology, and experience in developing water quality criteria for similar ecosystems.

Science Panel members will be eligible for reimbursement of out of state travel expenses incurred for participation in Science Panel meetings. Non-public employees are also eligible for a modest honorarium.

TABLE 2. POTENTIAL UTAH LAKE SCIENCE PANEL EXPERTISE, AFFILIATION, AND MEMBERSHIP.

Name	Affiliation	Expertise
		Limnology
		Biogeochemistry
		Phycology
		Nutrient cycling
		Hydrodynamic/Water Quality Modeling/hydrology
		Aquatic ecology/fisheries management
		Wetland science

MEETINGS

Meetings will generally be held at the Utah Lake State Park Office (4400 W. Center Street Provo, UT 4601). Meetings will be held at least four times per year and may initially be held more frequently as the research program is developed. At least twenty working days' notice of each meeting will be provided to Science Panel members. Meetings will be conducted by a contracted professional facilitator, as necessary. Meetings will be open to the public for observation and public input will be facilitated by the meeting facilitator or Science panel chair. Meeting agendas and minutes will be maintained by DWQ and posted to a project website. DWQ and Commission will provide staff support for Science Panel meetings.

SCIENCE PANEL CHARTER

DECISIONS

The goal of the Science Panel is to work toward a consensus recommendation for water quality criteria necessary to ensure long-term protection of Utah Lake's designated uses. A majority of all Science Panel members is required to forward a final recommendation to the Steering Committee. Minority opinion(s) will also be forwarded if there is not consensus. If a majority is not possible, then alternative position papers from Science Panel member(s) will be forwarded for consideration by the Steering Committee.

Quorum is defined as two-thirds of the members of the Science Panel. Procedural issues require the support of two-thirds of the members present in a meeting.

DETAILED STAKEHOLDER PROCESS

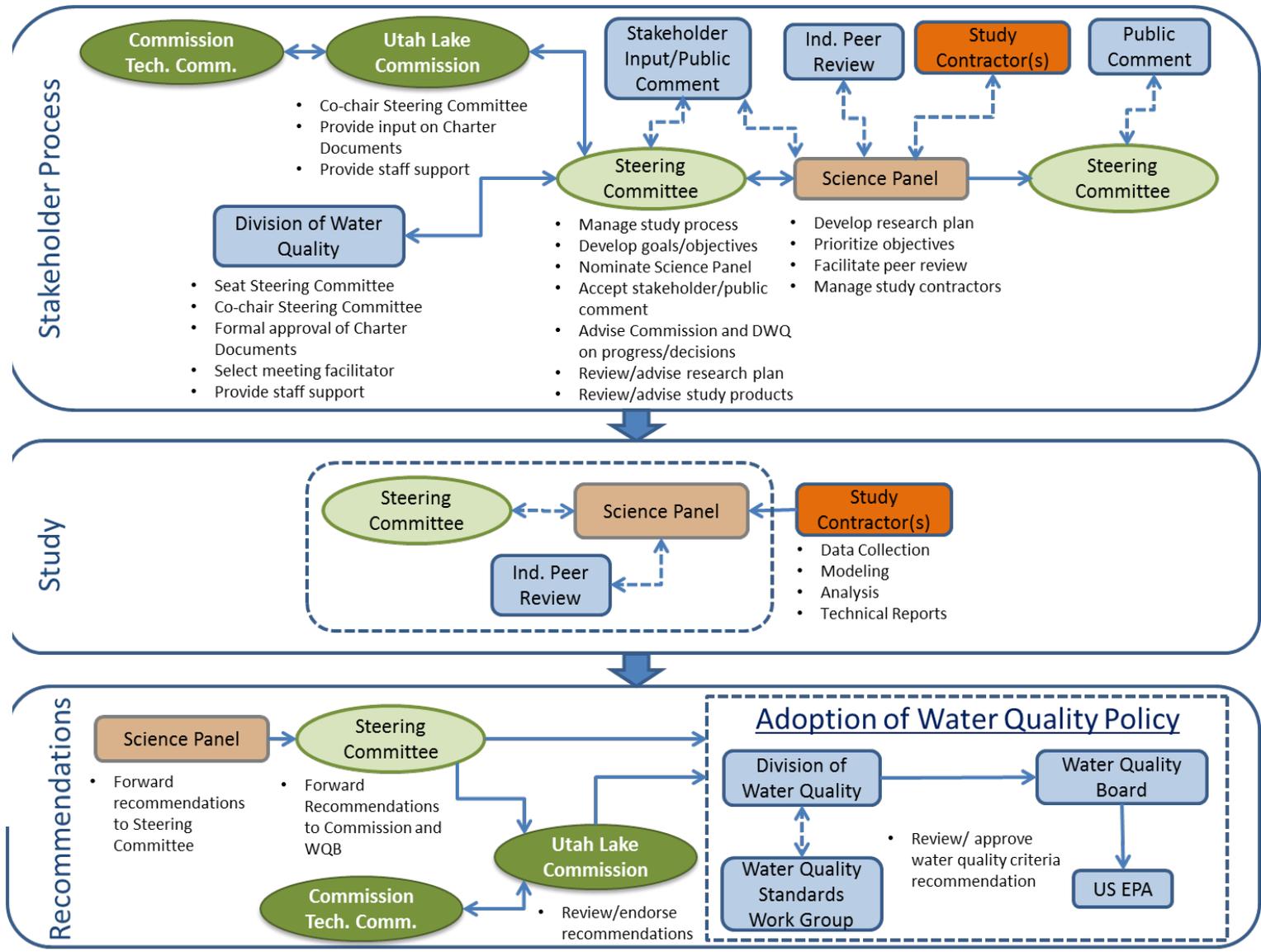


FIGURE 2. UTAH LAKE WATER QUALITY CRITERIA STUDY DETAILED STAKEHOLDER PROCESS.