



Blue Ribbon Committee for the Rehabilitation of Clear Lake

Technical Subcommittee

1:00 – 3:00 pm

August 27, 2020

Meeting Summary #11

Attendees:

Attendees are listed In Attachment A.

Action Items:

1. Sam Magill will:
 - a. Report back to the group whether Tribes are eligible for direct Prop 68 funding
 - b. Follow up with Frank Aebly, US Forest Service, to set up a conversation with Charlie Alpers and Joe Domagalski, US Geological Survey (USGS)
 - c. Distribute materials to the Subcommittee:
 - i. Summary of Clear Lake Water Quality Data from Angela DePalma-Dow
 - ii. Middle Creek Project presentation materials from Ms. Deligiannis
 - iii. List of local projects seeking funding from the Drinking Water State Revolving Fund Program from Ms. Kennedy
 - d. Bring the Technical Subcommittee's Recommendation revisions (as outlined in the summary for this meeting) to the Committee's September 23rd meeting
 - e. Schedule funding-specific and data-specific technical subcommittee meetings with those who expressed interest
 - f. Bring the idea of a broader public education and outreach event to the Committee for consideration
 - g. Update the funding request table to include amounts for three years of monitoring
 - h. Continue the conversation with Resources regarding what projects are able to use the Committee's Prop 68 funding
2. Sophie Carrillo-Mandel will:
 - a. Update the July Subcommittee Meeting Summary to indicate that Action Item 4 was for Dr. Alpers and regarding Scotts Creek (as opposed to Mr. Domagalski and regarding Middle Creek)
 - b. Draft the summary for this meeting and support Mr. Magill in completing the above action items
3. Angela DePalma-Dow will:
 - a. Send Dr. Alpers a compilation of information regarding past aquatic plant treatment on the Lake
 - b. Send the group the County Urban Stormwater Management sites and materials (Action Item complete: materials are included in the links below)
4. Subcommittee members will:
 - a. Send CCP staff any final edits to the April and July Meeting Summaries by August 28
 - b. Send CCP staff any further recommendations for on-the-ground capital projects

5. Marina Deligiannis will update the Middle Creek project team regarding the questions posed in this meeting and send her presentation materials to Mr. Magill to distribute to the Subcommittee
6. The TERC team will work with the Facilitator to determine the cost for 2021 April to July “gap funding.” They will also meet with Ms. Ryan and Ms. Kennedy to determine what contributions the Tribes could make toward continuing TERC’s research on the lake, and also how TERC and the Tribes can collaborate to ensure data continuity.
7. Ms. Kennedy will send the Facilitator the list of local projects seeking funding from the Drinking Water State Revolving Fund Program
8. Sarah Ryan will:
 - a. Look into how Tribal governments can contribute to funding Recommendation #4
 - b. Send the group an updated spreadsheet, originally drafted by Ms. DePalma-Dow, of local monitoring sites and funding sources for that monitoring.

Welcome and Introductions

Sam Magill (Facilitator), Sacramento State Consensus and Collaboration Program (CCP), convened by webinar the eleventh meeting of the Technical Subcommittee (Subcommittee) of the Blue Ribbon Committee for the Rehabilitation of Clear Lake (Committee). A full list of participants is included in Attachment A.

The Facilitator outlined the following meeting objectives:

- Confirm the Technical Subcommittee meeting #10 summary
- Learn about the Middle Creek Flood Damage Reduction and Ecosystem Restoration Project (Middle Creek Project) from a presentation by Marina Deligiannis, Lake County Water Resources Department (WRD)
- Engage in a brainstorming discussion regarding prioritizing activities in the 2020 funding climate

Confirm Meeting Minutes from July 23 Technical Subcommittee Meeting

The Facilitator asked for any edits to the July Meeting Summary. CCP will update Action Item #3 from the July Summary to indicate that it was Charlie Alpers who would provide an update on the development of US Geological Survey (USGS) projects funded by the Bureau of Land Management (BLM) to monitor water quality and install gauges in the Scotts Creek area (see Action Item #2a).

The Facilitator reviewed the previous meeting’s action items with the group. Unless otherwise indicated below, the action item was completed or is no longer relevant.

- July Action Items: In advance of the August 27th Subcommittee meeting, the Facilitator will:
 - Determine if Tribes are eligible for Proposition (Prop) 68 funding
 - Follow up with Frank Aebly, US Forest Service, to set up a conversation with Charlie Alpers and Joe Domagalski, USGS.

- Work with Angela DePalma-Dow, Lake County Water Resources Department (WRD), to circulate her summary of Clear Lake water quality data.

The Facilitator will complete these action items before the next meeting (see Action Items #1a, b, & c)

- July Action Item: Ms. DePalma-Dow and Carter Jessop, US Environmental Protection Agency (US EPA), will meet to discuss methylmercury signage at public beaches and boat launches.

Ms. DePalma-Dow will follow up with Mr. Jessop as-needed to discuss methylmercury signage at public beaches and boat launches.

- July Action Item: Ms. DePalma-Dow and Dr. Alpers will meet to discuss littoral insect monitoring in advance of the August 27th Subcommittee meeting.

Dr. Alpers stated that in late July a USGS team from Corvallis, Oregon sampled littoral insects over three days on the shoreline in all three arms of the lake. Ms. DePalma-Dow will provide Dr. Alpers with information on the locations of treatments for aquatic plants that occurred around that time and in previous years (see Action item #3a).

The Facilitator asked the Subcommittee to send CCP staff any final edits to the April and July Meeting Summaries by August 28, after which they will finalize the summaries to post on the Committee website (see Action Item #4a).

Local Updates

The Facilitator opened the floor to local updates. Dr. Alpers provided an update on the development of USGS projects funded by the Bureau of Land Management (BLM) to monitor water quality and install gauges in the Scotts Creek area. USGS will install two gaging stations in late fall before the rainy season, one near a bridge on the main Scotts Creek just south of BLM land, and the other on the creek's south fork. The gages will monitor continuously for discharge, temperature, and turbidity. The gage on the main creek will have an autosampler to take sediment samples during storm events and USGS will monitor for daily sediment loads from that station for at least one year. At both gage locations, as well as at the California Department of Water Resources (DWR) gage further down on Scotts Creek, and another location below Tule Lake where Middle Creek flows into Scotts Creek, USGS will take nutrient water quality samples. The purpose for measuring the sediment load is to characterize total phosphorous and total nitrogen concentration in the suspended particles to determine total particulate nutrient load to the lake from Scotts Creek.

Jim Steele, Lake County resident and former Supervisor, asked if USGS would sample the bed load and Dr. Alpers responded that the composition of finer materials can be determined through the suspended sediment. There is not funding to sample bed sediment after it has been deposited, but that is part of the sediment fingerprinting proposal included in the Committee's 2020 modeling recommendation. Dr. Alpers will continue to provide updates to the group on the progress of USGS monitoring on Scotts Creek.

Ms. DePalma-Dow informed the group that Lake County is working with the cities of Clearlake and Lakeport to launch their Urban Stormwater Monitoring Plan. The plan was developed by the California Rural Water Association. A full list of the plan's monitoring locations and monitored parameters is available on the [Clean Water Program website](#). She noted that some of the sites monitored for the program coincide with locations identified by the Subcommittee for the Committee's Basin-wide Monitoring Plan recommendation. The Stormwater Monitoring Plan can be found beginning on page 23 of the [August 28 Lake County Clean Water Program Management Council packet](#).

Sarah Ryan, Big Valley Band of Pomo Indians, provided an update from the Cyanotoxin Monitoring Program. She said that the upper arm of the lake has been below caution levels most of the summer, but the latest sampling event showed large blooms. The monitoring program is sampling twice per month. She also informed the Subcommittee that Big Valley received a grant from the Center for Disease Control to identify potable water intakes and monitor for cyanotoxins and potentially pesticides and other contaminants. She shared the monitored data chart with the group and acknowledged good work being done in collaboration between the State, County, the Tribes, and the public water systems. She noted that in the past, fires have caused a change in the cyanobacteria genera in the lake, and it remains to be seen if that will be the case with the current fire in the area.

Presentation: Middle Creek Restoration Project

Marina Deligiannis, Program Coordinator, Lake County WRD, provided an overview of the Middle Creek Project. She described the purpose of the Project as to eliminate flood risk to 18 residential structures, numerous outbuildings and approximately 1,650 acres of agricultural land and will restore damaged habitat and the water quality of the Clear Lake watershed. Reconnection of the large, previously reclaimed area, as a functional wetland is anticipated to have a significant effect on the watershed health and the water quality of Clear Lake.

Ms. Deligiannis identified the project components as land acquisition, funding allocations, stakeholder engagement, community engagement, design review and determination, and environmental and cultural evaluation. She noted that the project is still in the land acquisition phase, and cannot move forward before that task is completed. A plan by the Army Corps of Engineers (USACE) had previously been approved, but the cultural and environmental studies that plan is based on are now twenty years old and will need to be redone after property acquisition.

More information about the project can be found on the County's [Middle Creek Restoration Project website](#). The Middle Creek Project Committee meets the first Monday of every month and agendas are posted on the website 72 hours in advance.

Participants provided the following questions and comments. Unless otherwise indicated, responses are from Ms. Deligiannis.

- Will there be a formal Tribal consultation process with the USACE? Has the Project Committee been in touch with the Habematolel Tribe?

Response: Yes. County Supervisor Eddie Crandell is the Project's Tribal liaison.

- When the land in the rehabilitation area is flooded, what are the plans for land management? Will that go to the Lake County Land Trust?

Response from Ms. Delagiannis: A plan for this hasn't been determined, but the Middle Creek Project Committee would like input from the public and from scientific experts on that topic. We will be transparent about that decision when it is made. I'm happy to bring this up to the committee and will let them know what we discuss today (see Action Item #5).

Response from Ms. DePalma-Dow: Keep in mind that as properties are acquired, the County will bear the burden of maintenance of those properties. Vector control is a large associated cost.

- If the levees do breach before the project can be implemented, what will be the impact on the lake and on the project moving forward? Is there a critical mass of levees?

Response: We do not know what it will look like if the levees breach. They are State-maintained levees and during the 2017 high water events, California DWR did 24-hour flood fight protection.

- Considering the modeling and monitoring over the years of nutrient loading coming to the lake through Middle Creek, are those numbers still appropriate for the Total Maximum Daily Load limit (TMDL)? Are you seeing any discrepancy between what is expected to be reduced in terms of nutrient loading with this project and what you are seeing on the ground in terms of stormwater monitoring?

Response from Ms. Deligiannis: A lot of that data and scientific information has not been developed; parcel acquisition is our main focus right now. We are trying to maintain funding to monitor Tule Creek because it provides insights into how Middle Creek functions.

Response from Ms. DePalma-Dow: The estimates made for nutrient reduction for the TMDL were made for all nutrients from all external sources and not from internal loading. As we saw from UC Davis Tahoe Environmental Research Center's (TERC) last presentation, much of the nutrient loading to Clear Lake is internal. If the Committee's watershed model is funded and TERC's research is able to continue, we will know more. Currently much of the data comes from gages that are not in the best locations. The data won't be used for the Middle Creek Project for another 10-20 years, so it's not beneficial to gather that data now for this project. The State will likely change the TMDL before this project is completed.

- Considering that there are potentially decades before the completion of the Middle Creek Project, it would make sense for TERC to include this additional portion of the lake in future modeling to provide guidance as to whether the predictions of external nutrient loading could be true or what connections could be made to the rest of the lake.

The Facilitator noted that both Harry Lyons, Lake County Resource Conservation District, and Mr. Crandell sit on the Blue Ribbon Committee and could provide more information for Technical Subcommittee members upon request. Ms. Deligiannis will post her presentation to the Middle Creek Project website, and will send her materials to the Facilitator to share with the Subcommittee (see

Action Items #5 & 1c). Participants are welcome to reach out to Ms. Deligiannis at Marina.Deligiannis@lakecountyca.gov.

Brainstorming Discussion: Prioritizing Activities and Recommendations for 2020 Report

The Facilitator explained that because the 2019 Recommendations were not funded due to COVID-19 State budget reprioritization, the California Natural Resources Agency (Resources) has indicated that the highest priority for the Committee's 2020 Recommendations Report should be to secure funding for the 2019 Recommendations. The Facilitator asked the Subcommittee to review the 2019 Recommendations and respond to the following questions:

- Is this activity still a priority OR have current research activities progressed to the point where the item is a lower priority?
- Is the activity a higher priority than it was in 2020 (recommendations are listed in order of priority based on Committee discussion)?
- Are there other recommendations, such as securing a continuation of funding for DWR monitoring/sampling, that should be added?
- Should the activity be removed from the list of 2020 recommendations? Why?

The 2019 Recommendations are:

1. Develop a distributed model of the upper watershed
2. Implement a comprehensive basin-wide monitoring strategy
3. Conduct a bathymetric survey of Clear Lake
4. Review the implementation of existing Tribal, local, State, and federal programs, best management practices (BMPs), and other management requirements in the Clear Lake Basin
5. Assess the public's perceptions, attitudes, and knowledge gaps towards water quality in order to improve education and ultimately human impacts on Clear Lake

Geoff Schladow, TERC, noted that when the 2019 Recommendations were developed, it was assumed that UC Davis research funding would come from a different source than the Committee's Recommendations. However, that is no longer the case and if TERC does not receive continued funding, they will need to begin dismantling their research infrastructure in April 2021. Funding for TERC is included in the 2019 Recommendations request, but because the State budget for the next Fiscal Year will not be finalized until July 2021, gap funding will be needed from April to July. Alicia Cortes Cortes, TERC, added the April-July timeframe is important for conducting in-lake research and monitoring.

The TERC team will work with the Facilitator to determine what amount would be needed for April to July "gap funding." Ms. Ryan and Karola Kennedy, Koi Nation of Northern California, offered to meet with TERC to determine what contributions the Tribes could make toward continuing TERC's research on the lake, and also how TERC and the Tribes can collaborate to ensure data continuity (see Action Item #6).

Ms. DePalma-Dow relayed that DWR notified Lake County that they will discontinue long-standing monitoring on Clear Lake. She said that losing monitoring at those sites would be detrimental to the

reliability of existing, continuous water quality data and if that monitoring is discontinued, then those existing monitoring sites should be added to the monitoring plan that that Subcommittee has developed as part of the Committee's Recommendation #2.

Mr. Steele, Lake County resident, shared that sampling of sediment deposits in Middle Creek was part of a previous monitoring plan he developed years ago and would be worth revisiting. Dr. Alpers noted that similar work would be part of the Sediment Fingerprinting modeling proposed as part of Recommendation #1.

The Subcommittee agreed that Recommendations 1-3 are still of utmost importance and that securing ongoing funding for UC Davis's development of an internal lake model should be added to the recommendations, as perhaps the highest priority.

Comments on Recommendation 4 include the following:

- This is being done by other entities. It is the role of the State Water Resources Control Board's TMDL program to compile the information regarding BMP implementation. They have already compiled information from the US Forest Service (USFS) and BLM.
- The County Stormwater program contracted consultants EOA, Inc., who have developed a TMDL calculator for all County and urban areas, as well as non-urban areas that fall in the Clear Lake drainage basin.
- A review of implementation is the most important aspect of this recommendation.
- This task is the responsibility of the Community Development Department, but their follow up of BMP's is seriously lacking. They do not have a tracking system, nor the funding to follow up.
- The cost estimate for this Recommendation was based on a US EPA grant that the Big Valley Tribe applied for but did not receive, to hire consultant TetraTek to do a review. The Subcommittee will meet to discuss alternative funding opportunities. (see Action Item #8a).
- This is not as important as recommendations 1-3, but should not be taken off the list.
- This could be pushed to the future as a step after recommendations 1-3 provide more information regarding inputs to the lake.

The Facilitator noted that the wording for Recommendation 4 should be changed to put more emphasis on the review of implementation of BMPs (see Action Item 1d).

Comments on Recommendation 5 include the following:

- This does not need to be a priority this year or next year. The COVID pandemic is not a good time to assess peoples' understanding or unbiased opinions of science or government actions.
- It's important for the public to provide input because they are affected by decisions about the lake
- People are engaging online now more than ever before, so we might still receive good input in that way.
- This is not as important as recommendations 1-3, but should not be taken off the list.

The Facilitator will schedule a Subcommittee meeting regarding potential funding sources for the recommendations (see Action Item #1e). Most of the subcommittee membership expressed interest in

attending. CCP will gauge the Committee's interest in holding a broader public engagement event in the fall in the absence of a public survey, this event will likely need to be online (see Action Item #1f). Only one year of monitoring is included in the proposed budget for the 2019 Recommendations, the Facilitator will update the budget table to include an additional \$1.2 million over three years (see Action Item #1g).

Brainstorming Discussion: Shovel-Ready Projects Eligible for Prop 68 Funding

The Facilitator reminded the Subcommittee that the Committee was allocated \$5 million in Prop 68 funds for "shovel-ready" projects. He asked for Prop 68 project ideas that the Committee may move forward on in order to show tangible results coming out of the Committee effort, and to prevent stakeholder burnout.

Ms. DePalma-Dow proposed funding construction of a greenhouse or some other tule-growing infrastructure. She noted that land and lake managers need to replace invasive species with native ones to improve the quality of the lake. When someone commits a violation for a shoreline project, the County requires them to plant three times the tules they removed. However, the County does not currently have a place or method to refer these violators to in order to replace the tules.

Participants provided the following comments on this idea:

- It would be great to have a greenhouse, but there are many places that have a surplus of tules that the County could keep a list of. Tules transplant very easily.
- Spring Valley's drinking water reservoir has a lot of tules. Several ponds on the Robinson Rancheria have a surplus of tules.

Ms. DePalma-Dow noted earlier in the meeting that the County is also pursuing installation of a gaging station on Scotts Creek. She also suggested that a representative from the US Department of Agriculture Natural Resources Conservation Service (NRCS) could speak to the Subcommittee regarding their efforts planting tules at Tule Lake. Both of these projects might merit a contribution of the Prop 68 funding.

Ms. Kennedy and Ms. Ryan shared that Big Valley Rancheria will know soon if they received a grant for a Kelsey Creek Main Street Bridge Fish Passageway. Elem Indian Colony began the project, and now Big Valley is attempting to fund the environmental assessments and permitting. Prop 68 funds could be used for this project.

Ms. Kennedy pointed out that several local water purveyors are applying for funding for various projects from the Drinking Water State Revolving fund, which is also Prop 68 funding. She will send the Facilitator that list of local projects to send to the group (see Action Items #7 & 1c).

The Facilitator will bring these project ideas to Resources and continue the discussion regarding what projects are able to use the Committee's Prop 68 funding (see Action Item #1h). He invited

Subcommittee members to send CCP staff any further recommendations for on-the-ground capital projects (see Action Item #3b).

Data Management

The Facilitator acknowledged that development of a unified database is listed in the 2019 Annual Report as a potential future recommendation. He will schedule a specific meeting to discuss how to improve sharing data between programs and different databases and making data more accessible (see Action Item #1e). Ms. Ryan will send the group an updated spreadsheet, originally drafted by Ms. DePalma-Dow, of local monitoring sites and funding sources for that monitoring (see Action Item #8b).

Adjourn

As a Committee member, Ms. Ryan expressed gratitude to the Technical Subcommittee members for maintaining momentum through such a challenging year. She acknowledged that the group may have to “get creative” or scale back plans due to the unexpected State funding limitations, but that much good has already developed from the Committee process and she trusts that everyone will do the best they can to hold on to what progress they can in this funding crisis.

The Facilitator informed the group that CCP has submitted an application for a Wildlife Conservation Board Habitat and Ecosystem Restoration Program grant to fund some of the 2019 Recommendations. He will inform them and the Committee of the results of that application. He thanked the group for their participation and adjourned the meeting.

ATTACHMENT A: Roster of Participants

Participants		
First	Last	Organization
Charlie	Alpers	United States Geological Survey
Alicia	Cortes Cortes	University of California Davis, Tahoe Environmental Research Center
Angela	DePalma-Dow	Lake County Water Resources Department
Joe	Domagalski	United States Geological Survey
Karola	Kennedy	Koi Nation of Northern California
Geoffrey	Schladow	University of California Davis, Tahoe Environmental Research Center
Jim	Steele	Lake County resident
Broc	Zoller	Lake County Farm Bureau
Sam	Magill	California State University, Sacramento
Sophie	Carrillo-Mandel	California State University, Sacramento

Members of the Public		
First	Last	Organization
Marina	Deligiannis	Lake County Water Resources Department
Gavin	Pauley	United States Environmental Protection Agency