

California Water Data Consortium Steering Committee Meeting Notes

February 5, 2021
12:00 p.m. – 2:00 p.m.

Meeting Goals

- Welcome everyone!
- Updates on logistical items and programmatic activity
- Review and discuss existing and potential pilot projects

Meeting Documents

Item 7. CWDC Steering Committee Feb. 5 Meeting Agenda

Item 10. Consortium pilot project packet: Feb. 5, 2021

Action Items

- Steering Committee members to contact Pilot Project leads to get involved in pilot projects
- Joy Bonaguro and Debbie Franco to coordinate to advance the LiDAR project overview document
- Steering Committee members to share suggestions for additional individuals who might be interested in joining the LiDAR project
- Drew Atwater to share with Ms. Franco and Mahesh Gautam contacts who have worked on joint procurement efforts
- Consortium staff to organize ad hoc committee for charter and conflict of interest policy
 - Ad Hoc committee volunteers: Steering Committee Co-Chairs, Mr. Atwater and Susan Tatayon
- Steering Committee members share suggestions for Data for Lunch presentations or projects
- Consortium staff to continue to shepherd potential Water Rights Information System pilot project through further development and bring it back to the Steering Committee after the issues flagged in Dr. Moran's presentation have been addressed
 - Dr. Moran to connect Deb Agarwal with Mike Kiparsky to discuss additional questions about the project

High-Level Meeting Summary

Welcome, Goals, and Agenda Overview

Tara Moran, President and CEO of the California Water Data Consortium (Consortium), opened the meeting. Chris McCready, Steering Committee Co-chair and principal engineer with the California Department of Water Resources (DWR), welcomed participants to the fourth meeting of the Consortium Steering Committee and reviewed the meeting goals and agenda.

Logistical Updates

Mike Antos, Steering Committee Co-chair and Senior Integrated Water Management Specialist at Stantec Consulting, provided logistical updates, highlighting the beginning of a series of informal brown

bag lunch sessions with a presentation and discussion on work related to the Consortium. The first session will be held at noon on February 25, 2021 and will feature Dr. Thomas Painter of the Airborne Snow Observatory. Steering Committee members were invited to share suggestions of other speakers to feature in the series.

Programmatic Activity Update

Dr. Moran gave an update on the Consortium's programmatic activity, highlighting priorities for 2021:

- Advancing pilot projects
- Strategic planning
- Fundraising
- Outreach/communication

Existing Consortium Pilot Projects

Updates were provided on each of the existing pilot projects. Steering Committee members were invited to contact pilot project leads to get involved in the projects of interest. Dr. Moran also committed to providing the Steering Committee with regular updates on the projects so that members can track all of the projects and actively engage when they see fit. Additionally, she will develop and maintain a table with information on each pilot project to provide another way for Steering Committee members to remain abreast of the work.

Nick Martorano said that he would connect members of the Water Quality Monitoring Council's workgroups with the pilot projects as relevant to share skills and expertise that can help the projects move forward.

Urban Water Reporting

Glen Low gave an update on the Urban Water Reporting pilot project (formerly called the Water Use Efficiency pilot project). Sadie Gill, co-chair for the Data Users Working Group, and Rafael Maestu, co-chair for the Technical Working Group, will be the leads on this project moving forward.

Mr. Low said that the project will build on existing work and focusing on streamlining reporting processes; he highlighted the importance of having both State and non-State representation involved in the project. The first phase of the project will focus on reviewing existing reporting requirements and efforts and evaluating the potential for harmonization and streamlining reporting. The second phase will focus on scoping the path forward, including a possible small-scale proof of concept.

Steering Committee members shared comments and questions about the pilot project.

- Will the project look at uses of the data beyond the agencies that require it?
 - Mr. Low said that it will include both how the State agencies are using the data as well as what other end users and uses there are of the data that the agencies publish. The project will need to ensure that longitudinal data uses are not lost, for example by changing the questions.
- People who work with modeling water use and the big picture of water management in California would likely be another audience for this work.
 - Dr. Moran said that this kind of feedback will help the pilot projects advance and the Consortium will continue to look to Steering Committee members for this kind of input.

LiDAR

Debbie Franco, Consortium Board member and Senior Advisor for Water and Rural Affairs in the Governor's Office of Planning and Research, gave an update on the LiDAR project, which is being co-convened by the Department of Conservation (DOC). At this time, the project is focused on holding a meeting at which participants will explore whether to move the idea further by assessing the landscape of data currently being collected, investigating where agencies are looking to make additional investments, identifying gaps, and determining the potential benefits of the project. If the project should move forward, the Consortium's role would likely be fairly confined, focused on orchestration of the project. Mahesh Gautam, Co-Chair for the Data Users Working Group, will lead the project moving forward.

Joy Bonaguro said that she would coordinate with the project leads to help advance a document to inform the project, which is being developed in collaboration with DOC. She also said that the data acquisition process is being started.

Steering Committee members were invited to share recommendations for additional individuals who might be interested in joining the LiDAR project

Steering Committee members shared comments and questions about the pilot project.

- Cooperative procurements are an exciting opportunity, especially for processes like remote sensing, for which scale is beneficial.
- This project could expand to broader remote sensing work, beyond LiDAR.
- This should be an ongoing, multi-year effort.
- Drew Atwater and Mike Antos offered to share contacts at organizations that have worked on joint procurements, such as the Sacramento Regional Water Authority, the Los Angeles Regional Imagery Acquisition Consortium, and the Center for Urban Resilience at Loyola Marymount University.
- David Harris expressed interest in joining the LiDAR pilot project.

Groundwater Elevations

Dr. Moran gave an overview of the groundwater elevations project, which aims to align groundwater elevation data across regulatory programs by:

- Aligning reporting requirements
- Ensuring that data reported between the programs can be integrated across them and shared to different departments, making the data readily accessible to State and local agencies
- Developing a venue for ongoing dialogue between State and non-State agency representatives

Similar to the Urban Water Reporting project, this project will have two phases, with the first focused on identifying harmonization potential and the second on developing a few potential solutions and recommendations on how to proceed.

Rich Pauloo, Co-Chair for the Technical Working Group, and Mr. Gautam will lead this project moving forward.

Steering Committee members shared comments and questions about the pilot project.

- There may be opportunities to align technologies and data harmonization standards between the groundwater elevation and urban water reporting projects. Ensure that there is communication across pilot projects to identify areas for alignment.
- Consider creating a way for basins that do not currently have reporting requirements to provide voluntary submissions.

Proposed Pilot Projects

Water Rights Information System

Dr. Moran gave a presentation on a new potential pilot project, the Water Rights Information System (WRIS). The presentation was informational. This was the first time that the Steering Committee was receiving information about this project. Following the Committee’s decision-making framework, they were asked to provide constructive feedback about the project but not make any recommendation about it at this time.

The projects proponents are Michael Kiparsky, Center for Law, Energy & the Environment (CLEE) and Richard Roos-Collins, Water and Power Law Group LLC (WPLG).

The proponents contend that insufficient information on water rights ownership, location, use, and timing hinders the ability of state and local agencies to make informed water management decisions, particularly during times of scarcity. This information is foundational to the development of robust water markets, water budgets, SGMA implementation, and statewide water planning efforts. The project aims to facilitate conversations between state/non-state agency representatives around a water rights information system and understand options for making water rights information readily available. Dr. Moran outlined the project’s focus areas and the Consortium’s potential role in the project. She also highlighted areas for improvement as the project continues to be developed.

Steering Committee members were asked to share constructive feedback about the potential pilot project.

- What information would this system contain? What information would be available to the public?
- Dr. Kiparsky: The current pilot project tracks water rights, including legal documents such as permits, licenses, and environmental records. It does not track water use except when use records are important to a water right claim. Fully incorporating water use records of various kinds will be an important part of a next phase. The pilot project digitizes paper water rights records making them searchable. This seems like a worthwhile effort and development of the data structure seems feasible. The process of digitizing the information will take a lot of work and may be very expensive. If the time is spent to build the structure, ensure that there are also resources dedicated to the digitization process.
 - Dr. Kiparsky noted that getting the information into the system is a substantial task. However, in the pilot program, this cost was significantly less than had been anticipated. For the full project, the cost is likely to be somewhere around \$3.5 million for scanning, digitization, and metadata assignment and approximately \$10-15 million for information verification. While that is a significant amount of money, it is cheap for the benefit it would carry.
- Accessibility of water rights information is critical to implementation of water markets, and bringing technology to bear to address this need has great potential. If successful, this project

would ultimately lower the costs of water management for many groups and agencies throughout the state.

- It is important to bring in more of the key players who need this data.
- How will this information be represented within the system? There are many different levels, from making documents scans available to actually putting the data from those documents into a database.
 - Dr. Kiparsky noted that this question gets at the usefulness and usability of the end product. While the pilot in the Mono Lake Basin did not put the data itself into a database, scanning, digitizing, and adding metadata to the documents has resulted in a thoroughly indexed and searchable database of documents. The next step is to make the interface more usable.
- Most optical character recognition (OCR) has around 95% accuracy. At the scale of a pilot project, this may be sufficient because the volume of errors is small and can be fixed. For a larger scale, the QA/QC process may be very significant. It is important that the interface include the ability for a user to review the document itself to ensure that the numbers in the database are correct.
 - Dr. Kiparsky: More will likely need to be done on this front and it is important to think through how accuracy is defined and verified. That having been said, this is not simply an OCR issue, as many of the existing records contain errors of various kinds even in their current paper form. Thus, the process QA/QC and verification process envisioned for this project would serve a function far beyond simple data accessibility.
- This project would contribute to the necessary move toward understanding water rights and access overall, rather than looking at surface water and groundwater separately.
- Ensure that the interface is user-friendly, searchable, and allows the information to be used to answer a wide range of questions.
 - Dr. Kiparsky: One area of potential complementarity between this effort and the Consortium's work is the stakeholder engagement to help define how the interface should function.
- Share the demo platform from the Mono Lake Basin when it is available.
- Consider the State Library and/or the University of California library system as partners.
- The Consortium may be a good fit for grappling with the challenges of implementing this project.

Dr. Moran asked Steering Committee members to identify additional areas that need to be further developed before the Steering Committee receives the decisional presentation and considers making a recommendation on the project. No additional comments were made. Dr. Moran encouraged people with additional questions to follow up after the meeting. She said that Consortium staff would make the second presentation on the project once they had worked out the areas she flagged during her presentation. Dr. Kiparsky thanked the Committee for its consideration of the project.

Wrap Up and Next Steps

Debrief on Pilot Project Draft Decision-Making Process

Ms. McCreedy asked Steering Committee members to share their impressions on how the group's decision-making process felt as they received the first presentation on a potential pilot project.

- It was helpful to hear more about the existing and potential pilot projects.

- Presentations on potential projects should include information about what support the projects have from State agencies, including general buy-in and commitment of resources, as this will impact the likelihood of a project's success.
 - Ms. McCready noted that the State is also part of the Consortium and agreed that any pilot projects under consideration would need support from State agencies.
- As the Steering Committee thinks strategically about whether to engage a new pilot project, capacity is a key issue, and the level of effort already dedicated to existing projects should be considered.
- Consider whether the Consortium might commit to working on a piece of a proposed project but not the whole project.
- More time within the Steering Committee meetings should be dedicated to get into more detail on the pilot projects, without an expectation that long documents will be reviewed ahead of the meeting. Additional information on the commitment involved in becoming part of one of the projects is also needed.
- Will there be a public announcement that the Consortium is considering pilot projects?
 - Due to capacity constraints, this is not planned. The Consortium may conduct specific outreach for areas where a gap has been identified.
- Can Steering Committee members bring colleagues in to work on a pilot project?
 - Ms. McCready said that the Consortium welcomes additional participants supporting the projects.

Ms. McCready encouraged Steering Committee members to provide additional feedback on the pilot project decision-making process directly to her, Mr. Antos, or Dr. Moran.

Items for the Next Agenda

Ms. McCready shared items on the docket for the next Steering Committee meeting:

- Revisiting the Steering Committee Charter
- Conflict of Interest policies

Steering Committee members were invited to join an ad hoc committee in advance of the March 5, 2021 meeting, to review the draft Charter and identify areas that should be discussed with the group and to review the draft conflict of interest policies. Mr. Atwater and Susan Tatayon volunteered for the ad hoc committee.

Meeting Attendance

Members of the public who called in to the virtual meeting via telephone only are not included in this list.

Steering Committee Members

- Deborah Agarwal
- Mike Antos
- Drew Atwater
- Christina Babbitt
- Joy Bonaguro
- Martha Davis
- Joaquin Esquivel
- David Harris
- Nick Martorano
- Chris McCready
- Susan Tatayon

Working Group Co-Chairs

- Mahesh Gautam
- Sadie Gill
- Rafael Maestu
- Rich Pauloo

Board Members

- Debbie Franco
- Mike Myatt

Consortium Staff, Volunteers, and Consultants

- Ariel Ambruster
- Johnathan Cruz
- Glen Low
- Amanda Miller
- Tara Moran
- Nancy Saracino
- Julia Van Horn

Other Participants

- Brad Arnold
- Aaron Baker
- Jamie Cameron-Harley
- Bill Eisenstein
- Kamyar Guivetchi
- Mike Kiparsky
- Beth Stern