SP CURE Joint Board and Monitoring Committee Meeting

Tuesday, January 18, 2022 – 9:00 am

Meeting Location:
Virtual Meeting

January Meeting Summary

High Level Take-Aways

- Overall, the Confluence at the Confluence went well. Participants were engaged and we addressed an emerging topic of interest. There was also good participation in the TU credit program.
- The Monitoring Committee presented data analyses of arsenic, aluminum, and chlorophyll-*a* (chl-*a*) in the urban South Platte and hosted a great discussion.
    - Ultimately, the group decided to table the aluminum analysis for now and focus on data collection.
    - The arsenic analysis revealed a need for a consistent data reporting around non-detects and overlapping site data. The Monitoring Committee will continue to characterize arsenic concentrations in the South Platte and take a closer look at tributary loading and potential geologic sources.
    - The chl-*a* analysis revealed that the state does not have data for Segments 14 and 15, and there has been little communication about how the Water Quality Control Division (WQCD) will implement the chl-*a* standard in streams.
- The group voted to add aluminum as an "optional" parameter in the SP CURE Quality Assurance Project Plan (QAPP) to help bolster the aluminum dataset in the South Platte.

Action Items

- Monitoring Committee to discuss and finalize next steps for arsenic and chl-*a* at their February meeting.
- Monitoring Committee to address non-detect information in datasets and create a consistent dataset for arsenic.
- BC to reach out to the WQCD to request that the implementation of chl-*a* stream standards be added as a topic to the 10-Year Roadmap workgroup.

1. **Discussion and Approval of November Meeting Summary**

   Sherry Scaggiari made a motion to approve the November SP CURE Board Meeting Summary. Curt Bauers seconded the motion, which passed unanimously.

2. Confluence at the Confluence Debrief

The group discussed feedback from the December Confluence at the Confluence.
Went well:

- Steve Lundt's on-site presentation was a highlight and was very engaging because it was not just at a desk.
- TU credits seemed to be popular. There were approximately 17 operators that requested TU credits, which is something the group agreed would be beneficial to continue in the future.
- The timing went well – we ended on time and things moved at pace
- It appeared that attendees were engaged – we didn't lose a lot of people along the way
- HABs was a great topic – it hasn't been addressed much in this sort of format. We exposed stakeholders to the topic and why it is important.

Room for Improvement:

- The polling software didn't work for all, so we would select a new platform for the next online event.

The group thanked the planning committee for their hard work - thanks Curt, Linda, Julie, Beth, and Jake!

3. Monitoring Committee 2021 Summary Presentation

The Monitoring Committee's 2021 presentation provided an evaluation of aluminum, arsenic, and chl-*a*. These parameters were chosen because:

- Revised arsenic criteria is expected to be promulgated in 2024,
- EPA recently updated aluminum criteria (2018) and aluminum is included in the upcoming Regulation 31 hearing (e.g. parameters not routinely applied).
- A new instream standard will be adopted for Chl-*a* later this year.

The Monitoring Committee has more than 50 sampling sites that cover approximately 50 miles of the South Platte River.

Arsenic. The monitoring committee provided a summary of the arsenic and aluminum data analysis results. A box plot of arsenic data from various sampling locations on South Platte River from upstream of Centennial Water and Sanitation District to County Road 32.5 illustrated 10 years of data. The median value ranges from 0.5 ug/L to 1.5 ug/L and generally increases as you go downstream. Tributary data show concentrations mostly in line with the mainstem, with Cherry Creek and Sand Creek having more elevated concentrations.

Arsenic data by month show concentrations between 1 and 2 ug/L, with no seasonal variation. The plot of 2020 Metro groundwater monitoring results showed variable arsenic concentrations. Metro has groundwater monitoring wells located a few hundred yards from the South Platte mainstem that are monitored quarterly. The monitoring wells show some elevated concentrations and some concentrations less than the mainstem. The Monitoring Committee performed a search of publicly available groundwater data and did not find many data available to bolster this dataset.

Several questions were raised.

- *How are non-detects quantified in the analysis?* It depends on the individual organization's reporting method and can be represented as zero. Each individual organization is responsible for deciding how to record data and share it with the State. Arsenic didn't have many non-detects. The group discussed how SP CURE members should report non-detects and agreed that the Monitoring Committee could consider asking members to standardize how we report data internally, but that we cannot dictate how members report data to the State.

- *Does the dataset include South Platte Renew's data?* The South Platte Mainstem Total Arsenic 2011 – 2020 box plot does not include South Platte Renew's data where Denver Department of Public Health and Environment (DDPHE) has an overlapping sampling location. The Downstream of Dartmouth site (S29) contains historical data collected from DDPHE. The Monitoring Committee will look further at this site to understand and characterize all the available underlying data. The group agreed that it would be beneficial to have an accurate, representative dataset to best characterize arsenic in the South Platte River.

- *Does wastewater discharge to streams increase arsenic?* Data show that the concentrations below dischargers are lower than those above the dischargers, indicating the effluent has a diluting effect.

- *What is the source of the arsenic?* It could be naturally caused (e.g. geology) or human-induced. The Monitoring Committee looked at published studies and did not find conclusive studies on the issue. It is likely due to both causes.

The Monitoring Committee will continue to build a foundation in understanding the source(s) of arsenic in the South Platte Basin. This process will be in line with the steps of a Use Attainability Analysis, which includes characterizing existing conditions, identifying sources and potential causes of arsenic, and characterizing the highest attainable use/rationale for revising current use. Immediate next steps will be to formulate a consistent dataset (and determine how to evaluate non-detects), evaluate tributary influences relative to flow loading, and evaluate potential impacts of geology on arsenic levels.

Aluminum. There are limited aluminum data available since not all SP CURE entities sample for it so the SP CURE dataset was supplemented with data from RiverWatch. Over the past 20 years, some sites have only four or fewer samples.

The limited dataset shows spikes of aluminum in some locations. While the new EPA method for aluminum is expected to result in less stringent limits than the hardness-based criteria, some SP CURE members are seeing that the new method will lead to more stringent limits in their permits.

The Water Quality Forum (WQF) Aluminum Workgroup is requesting total recoverable aluminum, dissolved aluminum, pH, temperature, hardness, and dissolved organic carbon be sampled for upstream, effluent, and downstream locations. The workgroup would like additional data since the State will set aluminum criteria in the future. The additional parameters will help the workgroup compare projected limits using the hardness-based calculations and the new EPA method. The group discussed the EPA Technical Support Document, and how the method is used.

Because updated criteria are not expected from the WQCD for several years, the Monitoring Committee recommends SP CURE start sampling for aluminum to create a more robust and reliable dataset and to revisit the aluminum criteria at a later date. Jim Dorsch made a motion to add total recoverable aluminum to the SP CURE constituent list as "optional." Dan DeLaughter seconded the motion, which passed unanimously.

Chlorophyll-a. Data requested by the Colorado Monitoring Framework (CMF) from the WQCD for chl-*a* reveal there are very limited data available on the South Platte River, and no data are available on Segments 14 and 15. While Metro's sampling of chl-*a* shows highly variable concentrations, every site has exceeded the 150 mg/m^2 proposed standard, which is a not-to-exceed standard.

The group discussed next steps for chl-*a* and determined that the Monitoring Committee will finalize next steps and direction at their next meeting

- WQF Workgroup - Perhaps a WQF workgroup is needed. SP CURE will work towards this ask in May. Content to discuss includes defining the problem, how to address the problem, and discussing what the workgroup could achieve.
- Keep tabs on other work being done - CMF's Nutrient Task Force is also working on analyzing these data and evaluating what factors drive elevated chl-*a* levels such as temperature and flow.
- Document what we are seeing in Colorado - Jim suggested it would be helpful to get a handle on what chl-*a* is, and is not, correlated with. More data could be helpful but will likely show exceedances. It may be possible to tie to some other biological condition. Sarah suggested the possibility of a white paper that tells the story of chl-*a* in Colorado streams, perhaps a joint effort with CMF.
- Review WQCD's proposal in detail when it is released for public comment this fall.
- Reach out to the WQCD to see if chl-*a* standards implementation would be an appropriate topic for the 10-Year Roadmap workgroup since there hasn't been anything communicated about how the standard will be tied to Total Daily Maximum Load (TMDL) efforts. BC will reach out to the WQCD.

4. **SP CURE Potential Projects and Partnerships**

This topic will be tabled to our next joint meeting. A summary of the Monitoring Committee's discussion will be available in the committee's January meeting minutes.

5. **Discuss Project Updates**
    a. **Colorado Monitoring Framework** – No update.
    b. **CWQMC/CDSN –** The DSN is doing their annual data call for Regulation 85/nutrient data. The DSN needs to be notified by February 15th, and data need to be uploaded by April 1st. Brown and Caldwell is available to help with data uploads for $2,000 per dataset.
    c. **BMW TMDL** – No update.
    d. **Monitoring Committee** – Covered previously.
    e. **SP CURE Website Update** – The new website is live – https://spcure.org/. The website includes a link to member documents, which leads to a Microsoft Teams SharePoint site for SP CURE. All members have been invited to participate in this site.

Websites are more complex than 10 years ago, and they require maintenance and updates to keep working. BC is able to make some content updates, and other updates will need to be made by the developer. Ches Arms, our web developer, offers packages for regular website maintenance that have been shared with the board. The board will continue the discussion on maintenance options at the February Board meeting.

6. Budget Update

Budget is on track and there are no unplanned expenses.

7. Other Topics and Announcements

None.

8. Next Meeting Dates

February 15, 2022 – Virtual
March 15, 2022 – Virtual
April 19, 2022 – Virtual

SP CURE Board Meeting: January 18, 2022
Attendance Record

Present	Name	Organization
	Juliana Archuleta	Adams County
✓*	Sherry Scaggiari	Aurora Water
✓*	Zachary Trabold	Aurora Water
	Julie Tinetti	Centennial W&S
	Alan Polonsky	City and County of Denver
✓*	Jon Novick	City and County of Denver
	Chris Douglass	East Cherry Creek Valley W&S
✓*	Curt Bauers	FRICO
✓*	Jim Dorsch	Metro District
✓*	Jordan Parman	Metro District
	Mark Koch	Molson/Coors
✓*	Mark Cubbon	South Adams County W&S
✓*	Dan DeLaughter	South Platte Renew
✓*	Eric Marler	Suncor Energy (U.S.A.)
✓*	Ben Wise	South Platte Renew
	James Boswell	Thornton
	Caleb Owen	Thornton
	Shay Shih	Thornton
	Steve Materkowski	UDFCD
✓*	Christine Johnston	Xcel Energy
✓*	Sarah Reeves	Coordinator, Brown and Caldwell
✓*	Beth Albrecht	Brown and Caldwell
✓*	Erin Donnelly	Brown and Caldwell
✓*	Jake Kunugi	Brown and Caldwell

*Joined virtually/by phone