

**August 3, 2018 California Cyanobacteria and Harmful Algal
Bloom Network (CCHAB) Network Meeting Notes**

Friday, August 3, 2018, 9:00 am – 12:30 pm

Cal EPA Building, 1001 I Street Sacramento, CA 95814

Training Rooms 1 and 2

Introductions

- Ali Dunn – State Water Board, Co-lead for FHAB
- Joseph Westhouse – State Water Board, Division of Water Quality
- Bryan Ranu – Golden state water company
- Angela Comadau – State Water Resources
- Stephon Cahina – State Water Board, Division of Drinking Water
- Aj
- Peggy – Department of Fish and Wildlife
- Ali – USGS
- Cristine - HAB Coordinator for Region 5
- Sheri Miller – State Water Board, Division of Drinking water
- Rich – Region 1
- Lisa Bernard – Region 1
- Carrie Austin – Region 2
- Jason Carter – Santa Rosa Field Office, Division of Drinking Water
- Casey Lyon – State of Oregon
- Tom P – SF Water County Agency
- Carola Kennedy
- Sue Keydel – U.S. EPA
- Climate Service
- Dave Caron – University of Southern California
- City of Santa Cruz
- Scott Navarro – Delta Stewardship Council
- Susan – Tracking CA, California Department of Public Health
- Matt – Sac County Water Agency
- East Bay regional park district
- Jim Honton – Ben Genetics
- Ed – PG&E
- Reggie – Office of Environmental Health Hazzard Assessment
- Brynn Secotta – Department of Water Resources

Announcements

Office of Information Management, Surface Water Ambient Monitoring Program

- There is an open Environmental Scientist position currently posted on CalHR. The position is focused on harmful algal blooms, cyanobacteria, and watershed assessment to look at bloom drivers, etc. The job positing closes August 15th.

CTAG Annual Meeting

- Being held in Sacramento in early November
- Early registration closes mid-August
- There will be a session on HABs

U.S. Environmental Protection Agency Update (Status of EPA Cyanotoxin Criteria)

- No movement to report on cyanotoxin criteria. Hopeful to have something out this year.

State Water Board, Division of Drinking Water Update

- For drinking water in California, laws and regulations are lacking with regards to HABs, leading to challenges in enforcing HAB mitigation measures in drinking water systems. Division of Drinking water is encouraging water systems to implement preventative and mitigation measures
- There have been some HAB issues in Clearlake and Kern River
- In areas of concern, presentations and outreach to public water systems have been occurring stating that, if you use surface water, cyanotoxins are an issue
- Division of Drinking water is optimistic that it will can begin developing rules and becoming subject matter experts in order to provide adequate technical assistance
- There is a push to establish a cyanotoxin management plan and provide resources to water systems. The plan will include vulnerability assessment and monitoring strategies
- There is a push to take a hard look at treatment operations to optimize treatment to deal with presence of cyanotoxins if they show up
- Water systems experiencing blooms and cyanotoxin presence are being directed to U.S. EPA/Water Resources Foundation/Waterworks Foundation tools and resources for management.
- Division of Drinking Water is letting water systems know that they are not alone in experiencing this issue, encouraging collaboration between water systems.
- Overall there is a strong effort in moving the drinking water community forward in addressing HABs.
- A tabletop exercise was conducted on May 10 by Mendocino District Office for cyanotoxins. The scenario included detection of Microcystin in the water systems above the U.S. EPA tolerable threshold for health advisory. They used that scenario to prompt discussions around having a potential event around Clearlake. About 20 water systems/40 people participated. The U.S. EPA, Region 9 covered cyanotoxin regulatory development under UCMR4, emphasizing the importance of public notification. Open conversation about what water systems might do during a cyanotoxin emergency ensued. Hot topics were mitigation in source quality and public notification; specifically developing templates, addressing health advisories, assessing the wording, etc. Free education for the public was also a topic of conversation. Overall there is good conversation in communities regarding these efforts including types of notification if there is a cyanotoxin event, what means are notifications sent out, who sends them out, and what agencies. CalWater gave a presentation on a Southern California region that was impacted by wildfires and how their water distribution system was impacted. Another table top exercise is being planned/organized/funded by an EPA Grant which is being used to hire a consultant enable CalWater and Waste Water Assistance Referral Network to develop a workshop that is targeting public water systems. The table top exercise is being held September 13 at Solano water irrigation system. This information went out on the Lyris list on August 3
- UCMR4 data goes directly to the U.S. EPA which does not provide immediate access to California so there is high delay before California gets the information. UCMR4 is not intended to be a rapid response support system, it is more for informing long term decisions. In the event there is a bloom in a drinking water utility, it is not ideal to use UCMR4 as a response system. California is interested in long term data. Nobody should be looking at UCRM4 data to get the bloom story, which is why monitoring should be done on a more local basis on behalf of the utilities.

Invited guest speaker: Recent experiences with HABs in Oregon (Casey Lyon, Oregon Health Authority)

- The City of Salem has been doing proactive testing and aggressive monitoring all the way up the watershed in the Detroit reservoir. The reservoir gets regular blooms every year but this year seems to be more severe. In the beginning of May, Salem began seeing bloom activity and intake got progressively worse. Memorial Day weekend testing showed that toxins were breaking through filters at the reservoir entry point, creating public health concerns. Blooms were growing on the filters themselves, resulting in intake of more cyanotoxins. Oregon Health Advisory worked closely with the City of Salem replacing and cleaning the filters. In early May they were experiencing concentrations over the threshold, resulting in 10-day health advisories and sample collection. Intake was shut off and emergency protocols and treatment began. Sample results indicated an advisory for vulnerable populations should go out, resulting in a “cyanostorm.” In June samples varied so it was decided to keep the advisory for a few weeks. The water system was treated with activated carbon, which has been effective. The experience led them to adopt U.S. EPA health advisories and think more about public outreach. The public wanted to know immediately what was going on and whether an advisory is necessary or not, so they intend on fast public notification during future events. This experience led to questions such as:
 - What does monitoring look like? – City of Salem decided to monitor every two weeks for ground water sampling with Microcystin/Cylindrospermopsin. If groundwater is above the 0.3 ug/L threshold, sampling will be increased. If there seems to be growth, it can progress to daily sampling. This recent event offered two weeks to develop these monitoring plans. Draft plans are being routed, and hopefully permanent rules will be established by the end of the year.
 - What if Anatoxin-A is found in the system? – Anatoxin-A falls into an unregulated arena, however Salem is considering Ohio Toxicologist’s recommended values, and the response to Anatoxin A should be the same as Microcystin/Cylindrospermopsin. Anatoxin-A is challenging because it is a known threat, however, studies are limited on threshold values that adversely impact public health. There are currently no plans for establishing Anatoxin-A health goals, which would be a starting point to establish guidelines.

City of Salem/Oregon Health Advisory key takeaways are that organizations/agencies/utilities/water systems should be familiar with available U.S. EPA resources, and other agency’s, as far as technical research being up to speed, especially with lab methods. It is also crucial to internally note who key people are to talk to about specific issues/subjects. Hundreds of water uses are brought up during blooms such as showering, watering lawns, etc. People did not readily have answers for how to respond to inquiries about all water uses. Considering differences between vulnerable populations versus general public is also important. It is crucial to know who your network is, and where to reach out. Emergency preparedness, tabletop exercise, etc., are important during these events due to their time sensitivity to avoid holdups. It is also important to keep distribution materials in various languages in mind by taking a preliminary pulse of the dominant languages throughout the state.

FHAB Program Updates

- Pre-holiday assessment was similar to last year. Collaborative assessment with regional boards and other partners took place at 40 waterbodies throughout the state. Sample analysis for Microcystin/Cylindrospermopsin/Anatoxin-A was done resulting in 80 no advisories, 27 caution advisories, 3 warning advisories, and 8 danger advisories. Pre-Labor Day assessment will be taking place, with a notification being sent out shortly.
- Satellite field verification was conducted to ensure accuracy of satellite estimates of cyanobacteria density. Status, data quality objectives, standard operating procedures, and supporting documents are in review. A pilot study is to begin this summer to verify the accuracy.
- Summer Sampling Plans are to continue supporting initial investigation for bloom reports, investigating suspected HAB related dog illness/death, and provide funds to collect specimens and conduct lab analysis.
- A survey will be going out to gather input on people's experience working with the HAB Portal and CCHAB Network Webpage. This is to improve searchability.

Subcommittee Updates

- Mitigation Subcommittee
 - o Deliverable: A website has been developed with resources for mitigating HABs.
 - https://mywaterquality.ca.gov/habs/resources/mitigating_habs.html
 - Please forward the website to stakeholders and get it circulating
 - Please forward comments or concerns to Carrie Austin with San Francisco Water Quality Control Board
 - o Need a vendor policy. It is in draft form, almost ready to go. Next step is to make sure that when vendors want to sell a product or service, that we're being responsible to avoid blooms.
- Wildlife Impacts Subcommittee
 - o No update
- Guidance Update Subcommittee
 - o Working on splitting the HAB Guidance Document into a toxicity assessment and response plan. Project is currently on hold as other priorities are handled.

Wrap Up

- Next Up
 - o New York started "Waterbody Specific Action Plans" for 12 water bodies. If CCHAB Network is interested, New York can be invited to present at a future meeting
 - o Florida has a state of emergency and has implemented a grant program for HAB management. Contract with NALMS could be invited to present also
 - o International benthic cyanohab group is moving forward with three co-chairs. CCHAB Group is encouraged to consider bringing them in as a subgroup/workgroup so the network has a wider ability to reach people.