Laboratory Committee – Report to BACWA Board

Laboratory committee meeting on: August 10, 2021
Executive Board Meeting Date: August 20, 2021
Committee Chair: Nicole Van Aken, Fairfield-Suisun Sewer District

Committee Request for Board Action: none

Regular meeting: 25 attendees (via teleconference only) representing 23 member agencies
Joint meeting with Permits Committee: 55 attendees, including 2 guest speakers

Tentative Order of Chlorine Blanket Permit Amendment

The Regional Water Board has released a Tentative Order blanket permit amendment that will modify chlorine effluent limits and remove oil & grease monitoring requirements for BACWA members. Comments are due August 20th. The committee discussed whether any modifications are needed to the Tentative Order to accommodate changes to whole effluent toxicity testing, and determined that no changes need to be requested at this time. Laboratory staff should plan to dechlorinate samples prior to conducting toxicity testing (applicable only to agencies that plan to discharge residual chlorine after the permit amendment is effective).

Training Opportunities (see flyer)

- In July, the committee began the first in a series of monthly training sessions on the 2016 TNI Standard. The training sessions are being led by Diane Lawver of Quality Assurance Solutions, LLC. There were more than 60 participants at the first session, representing 22 BACWA member agencies and 12 CVCWA agencies. The next session will be held on Tuesday, August 17th.
- The committee plans to offer a Sampling Plan training session later in 2021 (likely Dec 14), and CVCWA is looking into co-sponsoring the event.

Agency Updates

Palo Alto recently had an ELAP audit and shared the following observations from the audit:

- Before an audit, analysts should know not to deviate from your agency's SOPs.
- Make sure your agency has a specific list of reasons to reject samples for analysis.
- The EPA 2021 Method Update Rule is not yet reflected in the ELAP field of accreditation tables. When ELAP incorporates the 2021 MUR, an announcement will be posted to ELAP's "lyris" email list. In the meantime, agencies should continue to follow the current standard method, because ELAP requires the method used in Proficiency Testing (PT) reports to match laboratory accreditation certificates. City of Petaluma staff noted that they are running PTs using both methods to streamline the transition once ELAP recognizes the new updated methods.

Results of PFAS Regional Study, Phase 1

Miguel Mendez and Diana Lin of SFEI presented the Phase 1 results of the PFAS Regional Study for twelve municipal wastewater dischargers. The slides are available here. The following trends were noted:

- Results from grab and composite sampling were generally comparable to one another.
- Among the municipal dischargers, the sum of PFAS concentrations in influent, effluent, and biosolids were generally comparable for each matrix. By contrast, the industrial discharger included in Phase 1 had significantly higher concentrations than the municipal dischargers. This indicates the study approach of sampling representative POTWs (rather than all POTWs) is an appropriate way to characterize PFAS in municipal wastewater in the region.
- PFAS analytes were higher in effluent than in influent. This is due to the conversion of PFAS precursors to terminal PFAS products within the wastewater treatment process.
- PFAS precursors were quantified in influent and biosolids using Total Organic Precursor (TOP) analysis. In influent, PFAS precursors were about nine times higher than the sum of PFAS analytes. In biosolids, PFAS precursors were about five times higher than the sum of PFAS analytes. This means the influent and biosolids contain a significant presence of unknown PFAS precursors. TOP analysis was not performed on effluent samples in Phase 1, but this could be included in Phase 2.
- In September, SFEI, BACWA and the Regional Water Board will discuss and agree on the Phase 2 study objectives. The tentative plan for Phase 2 is to focus on PFAS entering sewer-sheds by sampling upstream in different service areas (residential, industrial, etc.), and to conduct sampling in a subset of the 12 agencies that participated in Phase 1.
- For Phase 2, committee members were interested in finding out more about biosolids concentrations and in groundwater underlying biosolids disposal or land application areas. SFPUC noted that some information on biosolids land application is available in this Pima County study.

Next meeting: October 12, 2021, 10 AM – 12 PM via Zoom.