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**ITEM NO. 11**

**Regulatory Affairs Committee Agenda**

**Tuesday, April 18, 2023**

**1:00 P.M.**

**East Bay Dischargers Authority**

**2651 Grant Avenue, San Lorenzo, CA 94580**

**Committee Members: Lathi (Chair); Johnson**

**RA1. Call to Order**

**RA2. Roll Call**

**RA3. Public Forum**

**RA4. EBDA NPDES Compliance – See Item No. OM4**

(The Committee will review NPDES Permit compliance data.)

**RA5. PFAS Update**

 (The Committee will receive an update on regulations related to Per- and Poly-fluoroalkyl Substances.)

**RA6. Adjournment**

Any member of the public may address the Committee at the commencement of the meeting on any matter within the jurisdiction of the Committee. This should not relate to any item on the agenda. Each person addressing the Committee should limit their presentation to three minutes. Non-English speakers using a translator will have a time limit of six minutes. Any member of the public desiring to provide comments to the Committee on any agenda item should do so at the time the item is considered. Oral comments should be limited to three minutes per individual or ten minutes for an organization. Speaker's cards will be available and are to be completed prior to speaking.

In compliance with the Americans with Disabilities Act of 1990, if you need special assistance to participate in an Authority meeting, or you need a copy of the agenda, or the agenda packet, in an appropriate alternative format, please contact the Administration Manager at (510) 278-5910 or juanita@ebda.org. Notification of at least 48 hours prior to the meeting or time when services are needed will assist the Authority staff in assuring that reasonable arrangements can be made to provide accessibility to the meeting or service.

In compliance with SB 343, related writings of open session items are available for public inspection at East Bay Dischargers Authority, 2651 Grant Avenue, San Lorenzo, CA 94580. For your convenience, agenda items are also posted on the East Bay Dischargers Authority website located at <http://www.ebda.org>

**Next Scheduled Regulatory Affairs Committee meeting:**

**Wednesday, June 14, 2023 at 11:00 a.m.**

# Item No. RA5 PFAS Update

**Recommendation**

For the Committee’s information only; no action is required.

**Background**

Per- and polyfluoroalkyl substances (PFAS) are a large group of human-made substances that are very resistant to heat, water, and oil. PFAS have been used extensively in surface coating and protectant formulations. Common PFAS-containing products are non-stick cookware, cardboard/paper food packaging, water-resistant clothing, carpets, and fire-fighting foam. All PFAS are persistent in the environment, can accumulate within the human body, and have demonstrated toxicity at relatively low concentrations. PFOA and PFOS, two of the most common PFAS compounds, were found in the blood of nearly all people tested in several national surveys.

As a result of public attention on the issue of PFAS, there is a lot of activity at the national, state, and local levels on regulations, legislation, and research. This report outlines recent developments.

**Discussion**

Drinking Water Regulations

Regulatory efforts to address PFAS have primarily focused on drinking water in order to minimize human ingestion of these chemicals. In August 2019, California’s Division of Drinking Water (DDW) lowered the drinking water notification levels to 6.5 ng/L for PFOS and 5.1 ng/L for PFOA (lowest detection possible at the time). In February 2020, DDW also lowered the response levels to 10 ng/L for PFOA and 40 ng/L for PFOS.

On March 14, 2023, the [U.S. EPA](https://www.epa.gov/newsreleases/biden-harris-administration-proposes-first-ever-national-standard-protect-communities) released their proposed drinking water Maximum Contaminant Levels (MCLs) and Maximum Contaminant Level Goals (MCLGs) for select [PFAS](https://brownandcaldwell.com/2020/05/what-is-pfas/) compounds. These draft MCLs will go through the formal approval process and are expected to be adopted by the end of 2023, and become enforceable standards by the end of 2026. For PFOA and PFOS, the proposed limit is 4 parts per trillion (ppt), or 0.004 ng/L. The proposed rule also contains site-specific limitations on any mixture containing one or more of PFNA, PFHxS, PFBS, and/or GenX Chemicals. Potential risk would be assessed using a hazard index calculation, defined in the proposed rule.

While the proposed MCLs are of obvious concern to drinking water agencies, they are unlikely to directly affect EBDA or our members’ wastewater operations. Where wastewater facilities discharge into waterbodies that have the potential to be drinking water sources, there is a chance that the MCLs could be implemented as effluent limits in wastewater permits. However, because EBDA discharges to the Bay, any limits on EBDA’s effluent would be more likely driven by the potential for impacts to aquatic ecosystems, rather than human health. Levels safe for aquatic health have yet to be defined.

Hazardous Waste Regulation

In August 2022, EPA proposed a rule designating PFOA and PFOS as hazardous substances under the federal Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) – also known as the Superfund law. The intent of this approach by EPA is to invoke a “polluter pays” principle, forcing the chemical companies that produce PFAS compounds to take responsibility for cleaning them up. The Superfund law works by triggering cleanups once contamination exceeds EPA thresholds, and another provision allows the agency to sue for cost recovery. However, the wastewater sector and other industries that are passive receivers of PFAS have argued that we should not be subject to these requirements. There are unlikely to be any immediate ramifications to wastewater agencies from this designation because the default reportable quantity is one pound per day for PFOA and PFOS, a mass which is unlikely to be reached in wastewater agencies’ biosolids or effluent. However, the wastewater sector is continuing to push for an exemption to counter the risk that the reportable quantity could be lowered in the future.

Legislative and Regulatory Approaches to Biosolids in Other States

The most significant impacts to wastewater agencies have come from state legislatures taking action related to PFAS in biosolids. The Maine legislature passed L.D. 1911 in April 2022, banning use of all products that contain wastewater biosolids due to concerns about PFAS contamination. The legislation was prompted by discoveries of groundwater, soils, and milk with high levels of PFAS at farms and dairies where biosolids were applied. Importantly, paper mill residuals with high levels of PFAS were applied as soil amendments in many of these areas. Irrespective of the specific causes of the contamination, wastewater agencies in Maine must now haul their biosolids out of state for agricultural reuse.

In Arizona, recently proposed House Bill 2669 would have banned the land application of Class B biosolids within 3 miles of any area with a population greater than 128 people per square mile and within 1 mile of any land used for the production of direct human consumption crops or a residential zone. The legislation was prompted by a site near Yuma, Arizona which receives biosolids from Southern California. As opposed to PFAS, the driver in this case appears to be mismanagement at the site (stockpiled biosolids to which septage was added) that led to flies, odors, and complaints. Following advocacy by local utilities, the legislation was amended, and the bill currently moving forward bans application of sewage or septage, but not biosolids.

On the positive side, the approach being taken by the Michigan Department of Environment, Great Lakes, and Energy (EGLE) toward regulating biosolids for PFAS is being held up as a model for California and other states. The Michigan strategy, which rolled out in 2021, established a threshold at which PFAS in biosolids are considered to be at background levels. Michigan EGLE conducted a study of biosolids from 42 wastewater treatment plants and found that the average PFOS concentration was 18 μg/kg. They then established thresholds for determining that wastewater agencies were “industrially impacted” and worked with agencies whose biosolids concentrations were above those thresholds to investigate potential sources and develop a source reduction program. Agencies with PFOS below 50 μg/kg were not required to take further action. Agencies with PFOS at or above 50 μg/kg but below 150 μg/kg were asked to reduce land application loading rates and develop source reduction programs. Only biosolids exceeding 150 μg/kg are not permitted to be land applied, and source reduction programs for those agencies are also required.

Research

Because there are so many unknowns and additional data is required to support rational regulation, there is a lot of research underway into the sources, pathways, and impacts of PFAS in the environment.

A recent [study](https://www.sciencedirect.com/science/article/abs/pii/S004896972103521X?via%3Dihub) conducted by University of Arizona investigated the impact of long-term land application of Class B biosolids on PFAS presence in soils. The study found that even after decades of land application, the concentration and accumulation of PFAS in soils receiving the biosolids was comparatively low, and significant attenuation of PFAS occurred near the soil surface. These results suggest that the potential for groundwater contamination is relatively small. The University of Arizona is now leading a [national study](https://west.arizona.edu/news/west-led-pfas-national-collaborative-study-gets-ground) looking at PFAS in soils with a history of land application of biosolids. This study, which kicked off in 2021, is looking at soil, groundwater, and crop uptake to better understand potential routes of PFAS exposure.

In July 2020, the State Water Resources Control Board (SWRCB) issued an investigative order requiring all wastewater treatment plants (WWTPs) to monitor for PFAS in influent, effluent, and biosolids quarterly for one year. The San Francisco Bay Region was exempted from that order in favor of conducting a regional study through the Regional Monitoring Program. In Phase 1 of the study, influent, effluent, and biosolids samples were analyzed at a select number of Bay Area WWTPs, which included Dublin San Ramon Services District, Union Sanitary District, and EBDA’s combined outfall. Levels detected in wastewater effluent and biosolids from Bay Area agencies were lower than in other household products, and concentrations of individual PFAS compounds in effluent were well below DDW action levels. The study also showed that levels of PFAS in influent were not correlated with the number of industrial dischargers in an agency’s service area, leading to the conclusion that PFAS is primarily coming from residential and commercial sources. Another interesting finding was that effluent PFAS concentrations consistently exceed influent concentrations. This is not because wastewater plants are creating or contributing PFAS, but rather because significant quantities of PFAS precursors can be found in influent, and those precursors are converted to detectable PFAS compounds through the treatment process.

The Bay Area Clean Water Agencies (BACWA) and the San Francisco Estuary Institute (SFEI) conducted sampling for Phase 2 of the regional study last Fall, and they are currently analyzing the resulting data. The focus of Phase 2 is on gathering information that is actionable and can inform management of PFAS. Since source control appears to be the most effective way to reduce PFAS in effluent and biosolids, the study is seeking to better understand sources in the sewershed by sampling upstream in several sewer service areas.

In parallel, work is ongoing to analyze PFAS data from the rest of the state collected under the SWRCB investigative order. Consulting firm CDMSmith, at the direction of a California Association of Sanitation Agencies (CASA) work group including the EBDA General Manager, has been reviewing the data set to understand trends and to identify potential outliers. The concept is that if the wastewater community offers peer-to-peer support to agencies with high PFAS levels, focusing on a source control approach like the Michigan model, we may be able to head off more stringent regulation in the state. Meanwhile, SWRCB staff has said publicly that they do not see any causes for concern in the wastewater or biosolids PFAS data and do not expect to move forward with regulations in the immediate future.

California Legislation

As noted above, because we are receivers of PFAS, the wastewater community is primarily focused on source control rather than treatment as the most effective way to address PFAS in the environment. CASA has been working with a consortium of environmental advocacy partners, including Environmental Working Group, to sponsor and support legislation targeted at companies producing products containing PFAS. CASA’s sponsored bill from last session, AB 2247, would have required labeling and disclosure of PFAS in a range of products, paving the way for further regulation. Unfortunately, the Governor vetoed the bill citing state administration costs, but several other PFAS-related bills were successfully signed. These included AB 1817, which banned PFAS in textiles such as clothing and household products, and AB 2771, which prohibits the manufacture, distribution, or sale of any cosmetic product in the state that contains “intentionally added PFAS” starting January 1, 2025.

CASA and its environmental partners are sponsoring a new bill this session, AB 727, which would ban PFAS in cleaning products. Bills are also moving through the legislature to ban PFAS in menstrual products (AB 246) and artificial turf (AB 1423).