

CITY OF LOS ANGELES

INTER-DEPARTMENTAL CORRESPONDENCE

DATE: June 24, 2024

TO: Honorable Katy Yaroslavsky, Chair
Honorable Tim McOsker, Vice chair
Honorable Nithya Raman, Member
Honorable Bob Blumenfield, Member
Honorable Kevin de Leon, Member
Energy and Environmental Committee

FROM: Barbara Romero, Director and General Manager
LA Sanitation and Environment



SUBJECT: **REPORT BACK RELATIVE TO STRATEGIES TO ADDRESS PFAS IN THE CITY OF LOS ANGELES (CF# [24-0456](#))**

This report is in response to a City Council motion (CF# 24-0456), dated April 19, 2024, instructing LA Sanitation and Environment (LASAN) to report back on the detection of PFAS within both the solid waste and wastewater sewer systems.

RECOMMENDATION

Instruct LASAN to create a recommendation plan to ensure that water treated by the Department can detect and treat Per-and poly-fluoroalkyl substances (PFAS) and other similar contaminants identified by the United States Environmental Protection Agency's (US EPA) PFAS Roadmap Action Plan, including stormwater/rainwater capture systems, and anything related to the ONE Water Plan.

DISCUSSION

PFAS are a large group of manmade chemicals that have been widely used in industrial, commercial, and consumer products since the 1940s. Nearly 15,000 PFAS exist according to the US EPA's chemical database. In recent years, the ubiquity of PFAS, its persistence in the environment, and the health and environmental threats from PFAS have become a great concern. The strong C-F bonds in PFAS do not allow an easy and natural breakdown of the chemicals in the environment and can bioaccumulate in humans and animals linking PFAS to many human health effects, which has earned PFAS the nickname of "forever chemicals".

Public clean water agencies have never, and do not, produce or profit from PFAS chemicals. Rather, PFAS substances enter public sewer and stormwater systems and the environment through industrial releases and crucially, commercial, and domestic sources as they wash off from household and commercial goods, clothing, and even human bodies. Public clean water agencies, i.e., sewage treatment and water reclamation plants, have limited control over the amount of these substances they receive and must handle.

LA SANITATION AND ENVIRONMENT ON PFAS

LASAN protects the public health and environment and enhances the quality of life in the City of Los Angeles' neighborhoods by administering the Solid Resources Program, Clean Water Program, Watershed Protection Program, and the Environmental Quality (Livability) Program. All these programs contribute to building upon the City's overarching program of environmental sustainability. LASAN operates four water reclamation plants [Hyperion Water Reclamation Plant (HWRP), Terminal Island Water Reclamation Plant (TIWRP), D.C. Tillman Water Reclamation Plant (DCTWRP), and Los Angeles-Glendale Water Reclamation Plant (LAGWRP)] that serve over four million people within two sewersheds covering 600 square miles. Each day, LASAN collects and treats an average of 314 million gallons per day of wastewater and discharges treated wastewater in accordance with rigorous water quality standards protective of both human health and the environment.

LASAN recognizes and is fully supportive in mitigating PFAS contamination by deploying management approaches including pollutant minimization, to meet PFAS-related water quality standards to ensure the protection of human health and the environment. LASAN has been actively working to understand and abate PFAS citywide. LASAN's past and present PFAS efforts include the following:

- In 2020, after the California State Water Board called for the state-wide PFAS investigative order, LASAN tested for PFAS in the influent, effluent, and biosolids, as well as leachate at the four water reclamation plants and landfills, respectively. LASAN was able to detect and identify the concentration levels of PFAS entering the wastewater treatment systems and the levels being discharged.

The following table summarizes the PFAS and highest concentration values detected at each facility from the Statewide Investigative Order. It is important to note that no PFAS compounds were detected in RO Water.

	Highest Concentration Values						
Facility	Influent (ng/L)	Effluent (ng/L)	Biosolids (ng/g)	Wet Cake (ng/g)	Brine (ng/L)	Leachate (ng/L)	Other PFAS Detected
DCTWRP	PFPeS (17.2)	PFOA (34.2)					PFBA, PFHxA, PFOS, PFOA,
LAGWRP	PFPeA (187)	PFHxA (21.5)					PFBA, ADONA, 6:2 FTS, PFOS, PFOA, PFOSA
HWRP	6:2 FTS (946)	6:2 FTS (83.2)	PFOS (18.2)	PFOS (15)			PFBA, PFHxA, PFBS, MeFOSE, PFPeS, PFOSA, PFOA, PFPeA, PFDA, MeFOSAA, EtFOSAA, 8:2 FTS, PFDaA, MeFOSE
TIWRP	PFOS (418)	PFOS (2420)					PFPeA, PFHxA, PFPeS, PFHxS, PFBS, PFBA, PFHpA, 6:2 FTS, PFOA, 8:2 FTS, PFNA. PFAS, PFOA, PFOSA, PFHpS, PFNA, PFUnA
TIWRP AWPF		PFOS (22.3)		PFOS (13,000)*	PFOS (17,500)		PFHxA, 6:2 FTS, PFOSA, PFBA, PFPeA, PFBS, 4:2 FTS, PFPeS, PFHpA, PFHxS, 6:2 FTS, PFOA, PFHpS, PFNA, PFDA, 8:2 FTS, PFOSA, MeFOSAA, EtFOSAA, PFUnA, PFDaA, MeFOSE, PFTTrDA

Lopez Canyon Landfill						5:3 FTCA (1340)	PFBA, 3:3 FTCA, PFPeA, PFBS, 4:2 FTS, PFHxA, PFPeS, 5:3 FTCA, PFHpA, PFHxA, 6:2 FTS, 7:3 FTCA, PFNA, PFOSA, PFOS, PFDA, 8:2 FTS, MeFOSAA, ETFOSAA, 10:2 FTS, PFDoA, EtFOSA, McFOSE, EtFOSE
Upstream Observation Well						PFUnA (6.53)	PFBA, PFPeA, PFUnA
Downstream Observation Well						PFUnA (19.8)	

*Digester Sludge

- LASAN's TIWRP also conducts quarterly sampling of PFAS in recycled water as part of their Division of Drinking Water permit. In addition, LASAN's HWRP is required to submit PFAS effluent monitoring results annually as part of the NPDES permit requirements.
- LASAN's laboratory has developed testing methods for about 40 PFAS compounds. However, there are about 4,730 distinct PFAS compounds known, and testing methods have not been developed for the majority of them.
- LASAN also provided letters of support, as well as comments for PFAS issues. In 2021, LASAN provided a letter of support to The Water Research Foundation regarding the unregulated organic chemicals in biosolids and the prioritization, fate, and risk evaluation for biosolids land application. In 2022, LASAN submitted comments to the U.S. EPA seeking exclusions for POTWs regarding the proposed designation of PFOA and PFOS as CERCLA hazardous substances, as POTWs are merely passive receivers. In 2023, LASAN also submitted comments in support of the draft proposal for Senate Bill (SB) 1430 - Water Systems PFAS Liability Protection Act to exempt certain entities from liability under CERCLA.
- In 2023, LASAN established the LASAN PFAS Task Force to address future challenges within the agency i.e., source control, receiving water limitations, treatment requirements, and beneficial reuse impacts. The Task Force also plans to start a subgroup that will include representatives from different LASAN divisions to study and research new PFAS removal and destruction technologies. Collaboration with other agencies and regulatory

workgroups has also allowed LASAN to stay up to date on the current and future regulations, as well as establish a support foundation to tackle the evolving PFAS issues.

- LASAN's Solid Resources Citywide Recycling Division (SRCRD) is preparing a Program Environmental Impact Report (PEIR) for the proposed Comprehensive Plastics Reduction Program, which seeks to create a citywide strategy to reduce single-use plastics upstream. The PEIR includes the evaluation and analysis of a proposed PFAS measure that may ban or limit PFAS from some categories of products and uses that are not currently covered by state law, including, but not limited to the following: additional food contact items not covered by Assembly Bill 1200 (e.g., containers, cups, wraps/wrappers, snack bags, and boats/or trays); household products such as polishes, waxes, paints, cleaning products, cookware; electronics; expand limitations to PFAS contained within carpets, furniture, and rugs; nonstick cookware; and molded plastic made of fluoropolymers or HDPE. The PEIR fulfills California Environmental Quality Act statutes and guidelines on conducting adequate environmental assessment and analysis prior to a discretionary action being made by a decision-making body, and provides City Council with the information necessary upon which to base future decisions and actions. At this time, City Council has not made a determination on whether or not a PFAS policy will be established.

Furthermore, the One Water LA Plan, which was a collaborative approach between LASAN, LADWP, and other City Departments to develop an integrated framework for managing the City's water resources and water facilities in an environmentally beneficial manner concluded in 2018. As a result of the One Water LA Plan recommendations in addition to meeting recycled water goals, the City is implementing the Donald C. Tillman Advanced Water Purification Facility and evaluating 100% water recycling at the Hyperion Water Reclamation Plant. These City-wide Project/Program efforts, which feed off of recommendations from the One Water LA Plan, will incorporate the treatment technology needed to treat PFAS and other contaminants that pose threats to public health and the environment.

LA SANITATION AND ENVIRONMENT PFAS TASK FORCE

The Los Angeles Sanitation and Environment PFAS Task Force (Task Force) was established on May 15, 2023, to develop a comprehensive strategy for protecting the public from PFAS exposure and the environment from the effects of PFAS pollution. The PFAS Task Force is composed of representatives from 13 LASAN divisions organized under different focus Groups (Water, Solids, Watershed/Stormwater, and Support) to address different issues, e.g., PFAS in wastewater, PFAS in biosolids, PFAS in solids, PFAS in stormwater, as well as a group to provide overall technical, financial, and administrative support. The Task Force created an action plan with recommended action items from each division. To protect the public from PFAS exposure and the environment from the effects of PFAS pollution, action items include developing in-house testing and sampling of wastewater, biosolids, and landfills for PFAS; identifying sources of PFAS contamination (residential, commercial, industrial); minimizing occupational exposure to PFAS; evaluating PFAS treatment options (removal and/or destruction); assessing the effects of bans and/or limits on materials containing PFAS; developing public outreach and education materials;

keeping up with new and evolving PFAS regulations; evaluating funding and costs; analyzing existing PFAS data; and collaborating with the necessary stakeholders to complete these items.

LA SANITATION AND ENVIRONMENT TASK FORCE ACTION ITEMS

Water Group:

1. Identify sources of PFAS in City wastewater by determining the amount of PFAS being generated by residential and industrial sources. This can be determined through sewer sampling of residential and industrial user sewer lines as funding, available technologies, and staff availability permits.
2. Incorporate best management practices to reduce the levels of PFAS at the various industrial sources (pretreatment).
3. Survey LASAN divisions and facilities to understand what the City is buying that has PFAS in it and look into expanding the Environmentally Preferable Purchasing (EPP) Ordinance to include PFAS.
4. Conduct sampling at different locations within the treatment plant to understand the fate and transformation of PFAS compounds and its precursors.
5. Evaluate the need for additional public outreach and education related to PFAS and LASAN's core programs.

Solids Group:

1. Use the existing publicly available data to estimate the degree of PFAS present in materials LASAN sends to landfills, material recovery facilities (MRFs), and compost facilities.
2. Evaluate the unlined landfill areas with potential impacts to the groundwater because PFAS potentially enters the groundwater through percolation. The unlined landfills include Bishop's Landfill, Gaffey Landfill, and Sheldon Landfill.
3. Increase public awareness and education through pamphlets or flyers to inform the public about existing PFAS in the leachate of closed landfills from past solid waste.

Watershed / Stormwater Group:

1. Depending on future funding, to design a sampling plan, specifically a Characterization Study, to monitor PFAS in the four major LA watersheds. Determine comparison in PFAS levels amongst and in watersheds (looking at different sources of water between runoff and wastewater discharge).
2. LASAN owned and operated facilities with NPDES stormwater permits that have

the potential to discharge PFAS from their stormwater conveyance system. Although there are no PFAS limits for stormwater in the Industrial General Permit currently, with sufficient funding, LASAN will continue to assess and identify PFAS source hot spots within the City of Los Angeles. PFAS Stormwater Hot Spots within LA include the City's closed landfills, the City's refuse collection yards, the City's wastewater maintenance collection yards, the CLARTS transfer station, and the Municipal Separate Storm Sewer Systems (MS4).

Support Group:

1. Develop LASAN PFAS Task Force Action Plan document and provide alerts, recommendations, and recent news to LASAN and PFAS Task Force based on new and evolving PFAS regulations and legislations.
2. With adequate staffing and resources, LASAN's Environmental Monitoring Division will analyze PFAS samples after obtaining Environmental Laboratory Accreditation Program (ELAP) certification.
3. LASAN's PFAS Task Force also plans to create a subgroup that will focus on new, innovative, cost-effective, and available technologies for PFAS destruction. Its main objective is to explore and assess current and emerging destruction methods, its feasibility, performance, and costs to better understand potential solutions.

FISCAL IMPACT STATEMENT:

This is a Citywide program and while LASAN can fund some of the work that is directly related to the impact of LASAN operations on PFAS, sufficient funding is intended to support other aspects of the work that address the challenges of PFAS in drinking water, whether found in public water systems or in source water.

JS:BR

C: Dr. Mas Dojiri