

SOLANO COUNTY CIVIL GRAND JURY

2025-2026

SOMETHING IN VALLEJO'S AIR

June 10, 2026

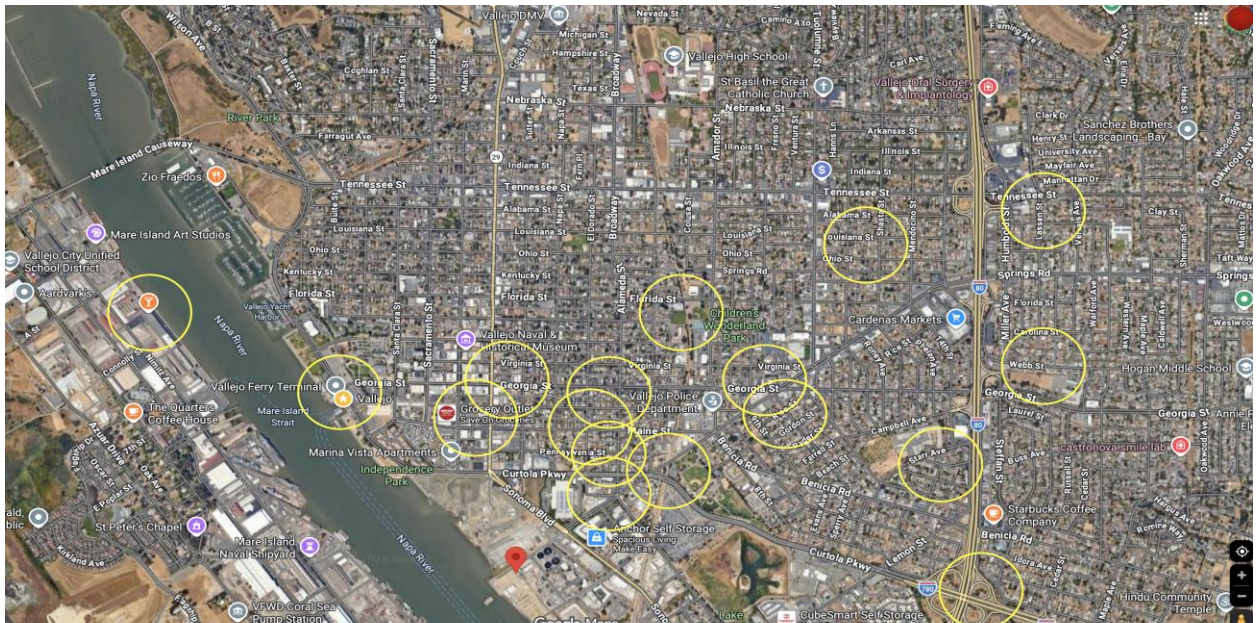
Something in Vallejo's Air

2025-2026 Solano County Civil Grand Jury

I. SUMMARY

It is not uncommon for a wastewater treatment plant to generate some odors during business operations. However, beginning in March 2024 and extending through September 2025, Vallejo residents and other members of the public passing through the City of Vallejo noticed significantly stronger unpleasant odors in the air. Residents complained that the strong odors impacted their quality of life. The increased odors generated by Vallejo Flood and Wastewater District (District) operations were particularly intense in the vicinity of the District's plant and beyond to the Heritage District and Downtown. The Solano County Civil Grand Jury (Jury) found the increased odors appeared to be generated by a District construction project ongoing between March 2024 and last quarter of 2025.

Resident Complaint Map



Map of locations where multiple complaints originated from. Yellow rings indicate general areas of intense odors where residents were physically affected. Map is not all-inclusive.

*“There has been a bad smell taking over the neighborhood. It smells like sewage and is stronger in the evening and at night”
~Resident complaint*

INTRODUCTION

Wastewater treatment

The goal of sewage treatment is to return the water portion safely back to the environment.

This is accomplished by a multi-step process which removes trash, suspended solids, oil, grease, and destroys pathogens. Solid waste is disposed of according to current rules and regulations.

Preliminary screening removes large material which could damage downstream equipment.

Primary treatment occurs in a clarifier removing sediment, oil and grease. The next step is

treatment by biologics which convert suspended organic material to sludge. The last stage destroys any remaining pathogens. The treated water (effluent) is then discharged to the environment.

The District’s website stated that the exacerbated odors were connected to a construction project that included plant upgrades and equipment repairs. The project had experienced delays in shipment of materials needed for a pipeline that was an integral component of the odor reduction process. The plant was also undergoing required maintenance such as replacing plastic media in the biotowers, contributing further to the odors. The public’s perception was that the stronger odors were caused by the removal of covers on the biotowers. Though the biotowers require continuous monitoring, the Jury learned that the absence of biotower covers was not the cause of increased odors.



Examples of the plastic media in the biotowers, that emit foul odors when they are removed and prepared for disposal.



“I just wanted to notify your agency that the odor is far and wide and it does affect our quality of life during these summer months since we do not have an air conditioner, as most residents in Vallejo do not”

~Resident complaint

Based on the increased number of complaints that began around March of 2024, the Jury chose to examine the District’s operations. The Jury investigated whether the exacerbated odors were attributable to the construction project, whether and to what extent the completion

of the project had resolved the odor issue, and what protocols are in place to monitor and control odors going forward.

The District did perform some community outreach prior to and during the upgrade and maintenance of the plant equipment and biotowers, indicating that the public could anticipate increased noxious odors.

*“With the windows open in my house on Florida Street, the smell was coming into the house and giving me a headache”
~Resident complaint*

II. STATEMENT OF FACTS

*“Sewage smell, not marine smell, oh my so strong on the water passing by condos, very nice for visitors to experience”
~Visiting boater complaint*

Vallejo Wastewater Treatment Process

Pre-treatment occurs as raw wastewater enters the headworks where mechanical cleaning removes large debris, such as diapers, baby wipes and feminine products, to protect downstream equipment. After screening, raw wastewater enters grit chambers to allow other material to settle out (food, coffee grounds, sand, gravel, etc.). Fewer solids mean less waste needs to be extracted, which in turn reduces overall odor. Odor control is managed by chemical scrubbers.

Preliminary treatment occurs in clarifiers when water velocity is slowed. This allows settleable solids (primary sludge) to sink to the bottom while fats, oils, and grease float to the surface to be skimmed. Primary sludge is pumped out of the clarifier.

Secondary (biologic) treatment directs the output of primary treatment discharge to a trickle down biotower containing plastic media which acts as a surface area for biofilm growth and wastewater contact. This semi-treated water, known as influent, trickles over the bacteria which digest the dissolved organic material. The output from this process enters an aeration basin, which injects air. This aeration process causes suspended material to clump together. The Secondary clarifiers allow the clumps to sink to the bottom where they separate from the water and become sludge.

Tertiary (third stage) treatment is chemical disinfection to kill pathogens in the water. The water is treated with disinfecting chemicals, then retreated to neutralize the disinfecting chemicals. The treated water is then discharged to the environment.

Sludge is disinfected then shipped off site.

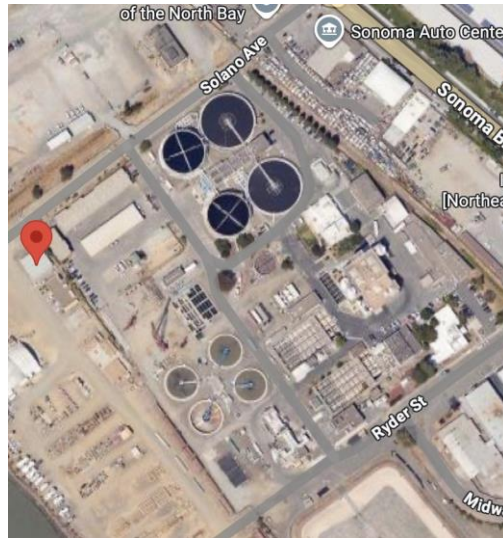
“...lives in Glen Cove and the smell is so strong its affecting her health (she has asthma)”

~Resident complaint

Vallejo Flood and Wastewater District Timeline

The biotowers were constructed in 1988 to provide secondary biological treatment. They utilize plastic media (see examples above) where microorganisms grow to consume organic pollutants. The lifetime of these materials used in the process is approximately 35 years. In March 2024 the south biotower was shut down for repairs. This included the installation of new channels inside the biotowers. The destruction of the old media with captured bacteria produced a pungent odor. New plastic media was installed and the biotower was placed back into service later the same year. Further site modernizations were completed by the end of 2025. The delay in repairing a crucial pipeline added to the escalation of odors. According to the District's website News Flash, 4E CCBA Staff Report Odor Projects 2025-04 Update:

“The pre-chlorination pipeline that delivers Sodium Hypochlorite to Headworks has been damaged in an unknown location and is currently not in operation. This project is intended to restore the District's ability to inject Sodium Hypochlorite into the influent stream which helps to reduce the Hydrogen Sulfite (H₂S) gas [rotten egg smell] that contributes to foul odors at the Headworks.”



“When will this stop?”

~Resident complaint

During the December 10, 2024 Board of Trustees meeting, the Board was unable to provide useful information to appease the public’s concerns about the ongoing odors. This inability stemmed from the fact that the Board does not include industry experts.

At the time of this report the completion of the construction project has apparently resulted in a significant reduction of complaints. According to District staff, the summer will reveal the true test of the repaired and upgraded system.

III. FINDINGS AND RECOMMENDATIONS

FINDING 1a – The language of the district outreach at the onset and during the construction project was broad and vague. This left residents unclear on the impact.

FINDING 1b -The District’s initial public notice in March 2024 underestimated the offensiveness of the odors and understated the timeframe, adding to the public’s distrust.

RECOMMENDATION 1 – For future nuisance alerts, the District offer more specifics and routine updates in their outreach communications.

FINDING 2 - The food waste from garbage disposals and non-flushable material from toilets exacerbate the odors and costs to treat the sewage.

RECOMMENDATION 2 – The District enhance the ongoing campaign by January 2027, to educate the public about what items should not be disposed of in the sewer system.

FINDING 3 - During a Board of Trustees meeting held on December 10, 2024, the Jury observed a lack of industry expertise demonstrated by board members. This failure contributed to the Board’s inability to ask constructive questions and relay accurate information to the public. The public expressed a similar frustration with the Board’s lack of operational knowledge.

RECOMMENDATION 3 –The Board of Trustees add an industry expert to the Board and familiarize themselves with basic operations of the District Treatment Plant by July 1, 2027.

IV. COMMENTS

The State of California and the District are actively working on an understanding of the depth of poor air quality and how it affects residents of Vallejo. The District is in beta testing using Envirosuite™ for monitoring real time air quality management. The California Air Resources Board hired Aclima Inc., to develop and implement Community Air Monitoring Plans using mobile monitoring in various communities. The City of Vallejo, specifically the area south of Tennessee St. and west of I-80 are a part of the study. Results from the State of California air quality monitoring program are anticipated to be available to the public by late 2026.

Wastewater treatment plant management is complex. Considerations include what type of equipment and what process (mechanical, chemical or biological) should be used at each facility. The plants are also faced with population growth and the aging of the equipment. The entire process requires careful air flow and influent management to prevent odors and maintain treatment efficiency including the bio-towers. These towers also need active management of air flow rates, distribution system maintenance, and biofilm thickness control to prevent channeling, odors, and treatment upsets. This complexity is why we recommend the District perform more robust public outreach when irregular operations adversely affect the public.

VI. METHODOLOGY

Video:

- City of Vallejo Meetings & Agendas - Vallejo Flood and Wastewater District

<https://vallejoca.portal.civicclerk.com/event/4657/media>

Documents:

- GTI Tank Covers: GTI Tank Covers Simplify Operations at Vallejo District (May 5, 2014).
- Water Online: Retractable Odor-Control Covers Improve Access To Wastewater Tanks At San Francisco Bay Sanitation Plant (March 15, 2010).
- EPA: Wastewater Technology Fact Sheet Trickling Filters (September 2000).
- Governor Gavin Newsom: In first-of-its-kind initiative, California deploys mobile air monitoring to protect underserved communities from pollution.
https://www.gov.ca.gov/2025/06/03/in-first-of-its-kind-initiative-california-deploys-mobile-air-monitoring-to-protect-underserved-communities-from-pollution/#:~:text=The%20SMMI%20will:%20*%20Deploy%20mobile%20air,academic%20research%20*%20Inform%20applications%20for%20grants
- Aclima's Sensor-Equipped Vehicles Hit the Road. <https://aclima.earth/smmi-cars-on-the-road/#:~:text=The%20project%20is%20expected%20to,the%20Community%20Air%20Grant>

[s%20Program.or Block-by-Block Air Pollution Mapping in 64 Underserved California Communities.](#)

- Vallejo Citizen Air Monitoring Network. <https://citizenairmonitoringnetwork.org/>

Interviews:

- Vallejo Flood and Wastewater District

VII. REQUIRED RESPONSES

- Vallejo Flood and Wastewater District Board of Trustees: Findings 1 through 3

VII. COURTESY COPIES

- Vallejo Flood and Wastewater District.
- Vallejo City Manager