

Parents Against Santa Susana Field Lab Supplemental Comments: Boeing's 2023 Proposed NPDES Permit

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Regarding: "Comments on tentative NPDES Permit, The Boeing Company, Santa Susana Field Laboratory, NPDES No. CA0001309"

Attachments: Updated Contaminants of Concern Historically Detected at the SSFL - by Media PDF; Map of Environmental Justice Communities Overlay with Watersheds PDF

Background

Parents Against Santa Susana Field Lab (Parents) is a grassroots group of parents, residents, and cleanup activists living near the Santa Susana Field Lab (SSFL). Parents formed when members learned that our children were being diagnosed with cancer at rates above the national average. By advocating for the complete remediation of the SSFL, Parents aims to protect nearby communities from exposure to the site's toxic and carcinogenic contamination in order to reduce, to the greatest extent possible, the number of local families who have to hear the words, "your child has cancer."

The SSFL is located in the hills between Simi Valley and Los Angeles above a population of over 700,000 people. The site's effluent impacts the Los Angeles River and Ventura County's Calleguas Creek Watershed, both of which terminate into the Pacific Ocean. The site has the potential to discharge approximately 187,000,000 gallons per day of stormwater runoff¹ that may contain pollutants such as radionuclides, persistent toxic chemicals, federally banned pesticides, and heavy metals from decades of nuclear experiments and rocket engine tests.²

The contamination onsite isn't confined to barrels or buried in vaults; rather it's loose in the soil and groundwater from numerous leaks, spills, fires, explosions, and illegal waste disposal practices. This makes the contamination mobile and especially dangerous to residents living nearby.

¹ *Boeing's 2022 Proposed NPDES permit, PDF page 97; Discharge Points and Receiving Waters*

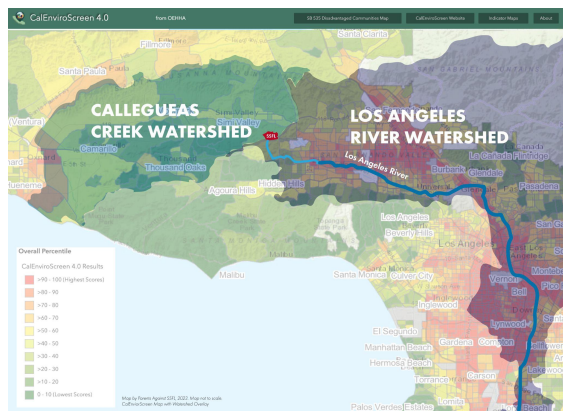
² *See attached, List of Chemicals Historically Detected at the SSFL*

The Santa Susana Field Lab is one of California's most toxic sites. Boeing's own 2015 Draft RCRA Facility Investigation Data Summary³ found that 96 out of 100 people would develop cancer if they lived and gardened on parts of Boeing's property at the SSFL. A federally funded epidemiological study found that residents living within 2 miles of the site had a 60% higher cancer incidence rate compared to those living 5 miles away, showing a direct correlation between cancer and the site.⁴ The site remains heavily contaminated today as the soil remediation has not yet begun and the permanent groundwater solution has not been implemented.

Until the Santa Susana Field Lab is effectively remediated there will continue to be exceedances in the effluent. However, the LARWQCB Board has not supported the site's complete cleanup. Instead, it signed the Memorandum of Understanding with the DTSC which enacted the Settlement Agreement between Boeing and the DTSC which will allow Boeing to leave up to 95% of the contamination onsite, permanently.⁵ The Committee to Bridge the Gap, a longtime SSFL watchdog and public interest group, has done a separate analysis and reached the same conclusion.⁶ Because of this, Parents, along with Public Employees for Environmental Responsibility (PEER) and Physicians for Social Responsibility - Los Angeles, are currently suing the DTSC and Boeing.

We ask that the LARWQCB strengthen the language of this permit regarding effluent limitations, monitoring of chemicals of concern (COCs), and the authority and duty of the Board to enforce the permit to the fullest extent possible. The Boeing Company must be held accountable for the contamination at the site and made to comply with the order in order to ensure the most health-protective, comprehensive remediation of the site.

NPDES Fails to Protect EJ Communities



As stated on April 23, 2023, in the Executive Order on Revitalizing Our Nation's Commitment to Environmental Justice for All, "Communities with environmental justice concerns experience disproportionate and adverse human health or environmental burdens. These burdens arise from a number of causes, including inequitable access to clean water..."⁷

There are many Environmental Justice (EJ) communities within miles of the Santa Susana

³ [Draft RCRA Facility Investigation, 2015](#)

⁴ [Dr. Morgenstern's Letter to Senator Simitian](#)

⁵ [Reuters Investigation, "How Boeing created a nature preserve that may also preserve pollution"](#)

⁶ [Committee to Bridge the Gap: Appendix A Secret Negotiations Between CalEPA & Boeing to Breach Cleanup Obligations for the SSFL](#)

⁷ [Executive Order on Revitalizing Our Nation's Commitment to Environmental Justice for All](#)

Field Lab.⁸ Because of the longevity and mobility of the SSFL contaminants, residents within EJ communities in the Calleguas Creek Watershed and the Los Angeles River Watershed are at risk of exposure to the site's toxic and radioactive waste.⁹ We are especially concerned with reports of residents eating "Sewer Salmon" from the Los Angeles River who fish in the Rancho Simi Park Lake.¹⁰ A strong permit is necessary to protect these vulnerable communities and ensure the health and safety of the people who rely on water from the Calleguas Creek Watershed and the Los Angeles River Watershed.

Lack of Commitment to Protect SSFL Groundwater

SSFL Effluent violates the California Human Right to Water Act: Assembly Bill 685 (2012)¹¹ which establishes that every Californian has the right to accessible, safe, clean, and affordable drinking water for the purposes of consumption, and the State is tasked with doing everything in its power to protect the Human Right to Water.

Attachment F, Section 3.7.2 of the permit addresses Environmental Justice Racial Equity issues, stating that "the Los Angeles Water Board anticipates that the issuance of this Order will not result in water quality impact to disadvantaged or tribal communities because the Order requires that Permittee to meet water quality standards to protect public health and the environment." Yet the EPA has stated that there may be impacts from contaminated SSFL ground to the Niles and Sycamore wells that are utilized by the Golden State Water Company in their residential drinking water blend that is served to a third of the residents of Simi Valley; "Golden State Water Company [of Simi Valley] operates two municipal drinking water wells...that are located between a 3-4 mile radius to the northwest of the SSFL site. The groundwater is blended... the above population may be subjected to potential future contamination from the SSFL site..."¹²

Furthermore, attachment F, section 3.6 of the permit says, "Supplies of groundwater are critical to agricultural operations and industry...in the [Calleguas Creek] watershed. Moreover, much of the population in the watershed relies upon groundwater for drinking."¹³

However, the LARWQCB is violating this act by allowing Boeing to intentionally reroute dangerously contaminated surface water into the SSFL groundwater via Silvernale pond and by allowing runoff to enter the R-1 pond, both of which are unlined. Although testing influent into Silvernale and R-1 is a step in the right direction, it does not actually stop the contaminated influent from reaching the groundwater and thus potentially reaching other local groundwater and watersheds.

⁸ [OEHHA CalEnviroScreen](#)

⁹ See attachment: [Map of Environmental Justice Communities Overlay with Watersheds PDF](#)

¹⁰ [Best Fishing: Ventura County and LA Times: "Sewer Salmon and the Secrets of the LA River"](#)

¹¹ [Assembly Bill \(AB\) 685: Human Right to Water](#)

¹² [Preliminary Assessment/Site Inspection Report Santa Susana Field Laboratory, PDF page 8](#)

¹³ [Boeing's 2022 Proposed NPDES permit, PDF page 113](#)

- **Rerouting effluent to Silvernale:** Best Management Practices by Boeing consist of practices such as routing stormwater effluent to the unlined Silvernale pond.¹⁴ This is contrary to the LARWQCB’s own statement in the 2022 NPDES permit, “By limiting the pollutants in SSFL discharges, the amount of pollutants entering the surface waters and groundwater basins are correspondingly reduced. Once groundwater basins are contaminated, it may take years to clean them up depending on the pollutants. Compared to surface water pollution, investigation and remediation of groundwater are often more difficult, costly, and extremely slow.”¹⁵ This practice saves Boeing money from NPDES violations and simultaneously shifts the blame as the groundwater is managed by the DTSC, though the LARWQCB is allowing the effluent to flow into it. It leaves a giant loophole between two regulating agencies and the public is put at risk.¹⁶
- **The permit allows Advanced Propulsion Test Facility (APTF) stormwater to infiltrate into groundwater.**¹⁷ Water in APTF footprint, which has not been remediated, is erroneously referred to as “green space” which ignores the fact that the soil remains polluted. This area too, should be appropriately lined and monitored for leaching, or the water should be routed for filtration so that pollution isn’t carried into the groundwater.

Proposed Permit Fails to Reflect an Abundance of Caution for Climate Change and Cleanup Activities

LARWQCB wrote in its response to comments in Boeing’s 2022 Proposed NPDES permit, “As excavation and other cleanup activities continue, there is the opportunity for exposing soil contamination such that stormwater could transport it off-site. Additionally, while pollutants may not have been detected in the past, with climate change and the resulting more intense storm events and increased frequency of wildfires, it is possible that there may be changes in the nature and quality of stormwater discharges. It is important that monitoring is in place to address these changes.” Without explanation the following language was removed from the footnotes of 2023’s Table F-12:¹⁸ “Climate change impacts are increasing the frequency and intensity of fires; thus, a new effluent limitation is justified where reasonable potential is triggered.” The proposed removed language should remain in the permit and these two concepts should be applied as best practices throughout the site; expanding the monitoring, effluent limitations, and frequency of testing of all historically detected constituents at all outfalls.

Similarly, Boeing’s Expert Panel’s Climate Action Plan should be made available to the public for review and comments before being finalized.¹⁹

¹⁴ [Boeing’s 2023 Proposed NPDES permit, PDF page 22](#)

¹⁵ [PDF page 113: Boeing’s 2022 Proposed NPDES permit](#)

¹⁶ [PDF pg 93 Boeing’s 2023 Proposed NPDES permit](#)

¹⁷ [PDF pg. 93 Boeing’s 2023 Proposed NPDES permit](#)

¹⁸ [PDF page 126 of Boeing’s 2023 Proposed NPDES permit](#)

¹⁹ [Boeing’s 2023 Proposed NPDES permit, PDF page 23](#)

Historical Contaminants of Concern should have effluent limits in the NPDES, according to the most protective limits.

All historically detected COCs²⁰ should have effluent limits in the NPDES permit and should not be dependent on having been previously detected in the effluent as they're already known to exist onsite. All COCs should have regulated limits in the NPDES, at all outfalls, but the following either do not exist in the proposed NPDES Reasonable Potential Analysis, or they exist without any qualifying criteria:

- **VOCs:** While the CWA itself does not explicitly state that VOCs must be monitored in stormwater runoff, it establishes the regulatory framework for managing water pollution, including stormwater discharges. The specific requirements for monitoring VOCs in stormwater runoff are typically found in NPDES permits, which are issued based on the CWA's regulatory framework.
- **Per- and Polyfluoroalkyl Substances (PFAS):** After a conversation with Charles Openchowski, a retired senior attorney in EPA's Office of General Counsel, it's our understanding that PFAS are being found across the nation in locations with high Trichloroethylene (TCE) contamination. The Santa Susana Field Lab has a 500,000-gallon TCE plume under the site. NASA has begun a preliminary assessment of PFAS at the SSFL but has not yet collected data.²¹ According to a report on NASA's Environmental Liabilities, PFAS are likely to be found at NASA sites, such as the Santa Susana Field Lab, as PFAS were used in fire-fighting foam, fire suppression systems, fire-resistant aviation hydraulic fluids, metal plating facilities, among others.²²
- **Polynuclear Aromatic Hydrocarbons (PAHS):** PAHs are a large group of persistent, toxic, genotoxic, and carcinogenic environmental contaminants. The following have been designated High Priority Pollutants by the EPA²³ and are known to exist at the Santa Susana Field Lab but are listed in the RPA without criteria: naphthalene, acenaphthylene, and phenanthrene
- **Toxic Pollutants:** The following are designated according to section 307(a)(1) of the Clean Water Act²⁴ but have no criteria in the RPA.
 - Pesticides: Delta-BHC, 4,4'-DDT²⁵
 - PAHS: Naphthalene
 - Semivolatile Organic Compounds: 4-Chlorophenyl Phenyl ether
 - Inorganic Compounds: Hydrogen Cyanide
- **Polychlorinated biphenyls (PCBs):** The permit states: "The discharge of polychlorinated biphenyl (PCB) compounds, such as those once commonly used for

²⁰ See Historically Detected Constituents of Concern by Media, attached

²¹ [NASA Field Notes 2022](#)

²² [United States Government Accountability Office: NASA's Reported Financial Liabilities Have Grown, and Several Factors Contribute to Future Uncertainties, PDF page 8](#)

²³ [Human Health Risk Assessment of 16 Priority Polycyclic Aromatic Hydrocarbons in Soils of Chattanooga, Tennessee, USA](#)

²⁴ [Clean Water Act Title 40](#)

²⁵ *4,4'-DDT is being monitored in offsite receiving waters, not effluent from the SSFL*

transformer fluid, is prohibited unless specifically authorized elsewhere in this Order.”²⁶ The proposed permit does not regulate PCB congeners. Monitoring equipment that can test at more sensitive levels needs to be used and exceedance levels should be set at health protective levels. As the LARWQCB should use the best available science PCB detection, requirements should be based on method 1668c congener analysis. Limits for this constituent should be set at each outfall.

Contaminants of Concern should not be removed from any outfall

The increase in frequency and severity of unpredictable rain events and wildfires, as well as the commencement of remediation activities, can contribute to the mobilization of contaminants on site. It is therefore necessary to increase, not decrease the testing and setting of fines for constituents at all outfalls.

- Removal of TCDD Equivalent Requirements: TCDD Equivalents are especially a concern as they were likely used in Happy Valley, the location of Outfall 008. Happy Valley hosted explosives and munitions testing and experimentation,²⁷ where TCDD Equivalents (such as PCBs) would have been heavily used. The permit should continue to require that TCDD meet the established limit of 2.8E-08 µg/L at outfall 008.
- Removal of Limits for 3,3'-Dichlorobenzidine. 3,3'-Dichlorobenzidine is a derivative of benzidine, and as benzidine is being monitored, 3,3'-Dichlorobenzidine should also be regulated in the 2023 NPDES. 3,3'-Dichlorobenzidine, like other benzidine-based compounds, has been classified as a probable human carcinogen by EPA. Following the Woolsey Fire, 3,3'-Dichlorobenzidine was detected in stormwater discharges.
- Iron should continue to be regulated at outfalls 011 and 018. The decision to remove the effluent limitation for iron is based on studies by Boeing's Surface Water Expert Panel. But this constituent was flagged for exceedances 327 times the limit in the quarters following the Woolsey Fire and this data should not be ignored. The previous limitation, which is consistent with the Basin Plan water quality objective, should continue to be used as it ensures that communities, including EJ communities, who rely on drinking water affected by contamination from the SSFL have water that is both healthy and has “aesthetic qualities generally associated **with drinking water**”²⁸

Limits for Perchlorate should be health-protective.

Limits are set at 6 µg/L, which complies with EPA drinking water standards. However, we would like to see limits for this particular constituent at the California Public Health Goal of 1µg/L, in efforts to adhere to the most protective health standards available. Children in the areas surrounding SSFL still play in the seeps and springs and thus there is the potential for contact and ingestion and therefore the most stringent standards should be used. There is now

²⁶ [Boeing's 2023 Proposed NPDES permit](#), PDF pg 6

²⁷ [Happy Valley Interim Measures Work Plan Addendum](#), PDF page 11

²⁸ [Boeing's 2023 Proposed NPDES permit](#), PDF page 145

sufficient evidence on the health impacts of this constituent to warrant the tightening of this limit, especially considering the potential impacts to children's cognitive and intellectual development.

Parents Against SSFL Opposes Fee Negotiations with Boeing

While the 2023 permit states that the period for stipulated penalties for Boeing will not be extended beyond June of 2022, the order also states, “Additional violations beginning 1st quarter of 2022 have been reported by the Discharger. These are pending investigation from Los Angeles Water Board enforcement staff.²⁹” In order to ensure a full and protective cleanup of the site, we would like for fines for exceedances and other issues of non-compliance to be enforced to the fullest extent, rather than be negotiated as in the past. Only strong and consistent implementation of enforcement mechanisms will motivate Boeing to come into compliance and to oblige them of their responsibilities at this extremely contaminated site that has the potential to affect the lives of hundreds of thousands of people who live in proximity to the site and the watersheds that receive its discharges.

Separate the Paired Outfalls 001/011 and Outfalls 002/018³⁰

While we understand that paired exceedances during the same event require careful analysis to avoid unwarranted duplication of fines, we would like to also avoid the elimination of fines if the concentration of effluent in the “duplicate” exceeds reasonable limits. We request, for example, that if the exceedance amount from outfalls 001 or 002 is more than double that of the exceedance at the northern paired outfalls 011 or 018, a fine be required at both of the paired outfalls. We think this is conservative and reasonable, especially as the northern outfalls are supposed to be treated prior to discharge and thus the constituent amount from the northern outfall should be filtered by that BMP process. Additional amounts of contaminants from the lower outfalls are reflective of the known contamination in the Southern Buffer zone, aka, the southern undeveloped land area.³¹

Outfall 009 is cited as not having a filtration system in place before discharging into the Arroyo Simi

It is problematic that runoff from the former shooting range that is currently being remediated for extensive lead contamination drains into Outfall 009 without filtration.³² Lead may be mobilized in the loose soil and discharged in increased amounts due to the remediation. We would like the Water Board to address the issue to prevent increased lead exceedances in the Arroyo Simi.

²⁹ [Boeing's 2023 Proposed NPDES permit, PDF pg 100](#)

³⁰ [Boeing's 2023 Proposed NPDES permit, PDF pg 29](#)

³¹ [Boeing's 2023 Proposed NPDES permit, PDF page 115](#)

³² [Boeing's 2023 Proposed NPDES permit, PDF pg 93](#)

Species Sensitivity tests to happen less frequently in 2023 permit, weakening this data collection method

The 2022 proposed permit required testing in any quarter in which 15 days of rain may be expected, and the 2023 NPDES requires one screening every five years.³³ We would like to see the previous language retained, even if that amount of rainfall is thought to be unlikely.

LARWQCB Transparency

Public Employees for Environmental Responsibility (PEER) has made repeated requests for specific information through Public Records Act requests but has not yet received the information they've asked for. Parents believe it is vital for the LARWQCB to act in a transparent manner by releasing the information to PEER.

Removal of Specific, Protective Language from 2023 Permit

Our overarching concerns about the 2023 permit pertain to the issue that a good deal of language has been removed throughout the permit, that is specific and exacting in nature, oftentimes with no replacement or with a much more generalized and weakened statement. Our concern is that this lack of explicitness, the removal of specificity across this permit only serves to weaken it, yet again, and to serve the interest of the Boeing Company and not those of the public who may be personally impacted by the loosening of this order. It must be acknowledged that this order does not exist separately from the SSFL clean up, nor from impacts to groundwater from which it attempts to distance itself³⁴ but ultimately allows. It is pertinent to the issuance of this permit to acknowledge that with each renewal, the SSFL permit has been weakened; time and again the permit has lost its protectiveness.

- Provisions in the 2022 Proposed NPDES permit that incorporated 40 CFR Sections 122.26 and 125.62³⁵ were removed from the 2023 Proposed NPDES permit: Sec. 6.3.1(h) in the 2022 Proposed NPDES permit (which has become section (i) in the 2023 Proposed NPDES permit) specified that the Order may be reopened in accordance with 40 CFR sections 122.26 and 125.62. Reference to these sections was removed from the 2023 Proposed NPDES permit. Section 122.26 covers the Permit Application and Special NPDES Program Requirements. Section 125.62 assures the protection of public water supplies, aquatic and wildlife, and recreational activities. Parents Against SSFL requests that the reference to these regulations be reinserted to ensure the permit can be modified in order to adequately protect our public water supplies and the aquatic and wildlife of SSFL.

³³ [Boeing's 2023 Proposed NPDES permit, PDF pg 74](#)

³⁴ [Boeing's 2023 Proposed NPDES permit, PDF pg 93](#)

³⁵ [Boeing's 2023 Proposed NPDES permit, PDF page 20 and Clean Water Act Title 40: 125.62 Attainment or maintenance of water quality which assures protection of public water supplies and Clean Water Act, Title 40: 122.26 Stormwater discharges](#)

- General Monitoring Provisions that were included in the 2022 Proposed NPDES permit were removed from the 2023 Proposed NPDES permit: The 2022 version stated that Boeing must properly maintain their monitoring equipment and that this is necessary to ensure the accuracy of measurements and functioning of equipment. But proper maintenance is also critical to ensuring that neither unintentional or intentional neglect, malfunctioning, nor accidents are allowed to occur due to improper maintenance of equipment. Again, the most stringent, explicit instruction possible should be retained so that the permittee does not infer any loopholes in their responsibilities at the site.
- Effluent limit reductions: should not happen at Discharge Point 008, or at any outfall. Discharge Point 008 flows into Dayton Creek which is a part of the headwaters of the LA River. The limits at this outfall should only be strengthened. Reduction of limitations that loosen the existing prohibitions only serves to further degrade our already impacted local waterways.
- Toxicity Reduction Evaluation (TRE) Workplan. This section removes the statement that “At a minimum, TRE Work Plan must describe the steps that the Discharger intends to follow if toxicity is detected.”³⁶
- Compliance Summary of Effluent Limitation Violations is misleading. Table F-5 in the Fact Sheet is not complete. It is a table of the violations that were enforced, rather than a complete summary of violations of effluent limits.³⁷ There were 57 exceedances in the two quarters following the Woolsey fire alone, and this table shows 43 distinct exceedance events for the years April 2015 - March 2023. We would like for all of the violations from the implementation of the 2015 permit to be shown, with the enforced fines denoted in some manner. Only through this type of illustration can a viewer of the permit truly understand the infractions at the site and to what degree this permit has been enforced.
- Removing daily maximums for constituents and replacing the limits for Pesticides and PCBs as an annual average should not be done. If fines are no longer based on daily maximums then the entire violation system changes and becomes more lax for the Boeing Company. It is unethical to remove daily maximum limits for the Arroyo Simi especially when outfall 009 discharges to those receiving waters directly without filtration or treatment.
- Issue of generalized labeling of constituents:³⁸ Headings such as “priority pollutants”, “conventional pollutants” and “non-conventional pollutants” have all been removed. This has the effect of making analysis more difficult. One could argue that all “non-conventional” or “priority pollutants” should certainly be sampled at each discharge event, but there’s no way of knowing which constituents are which. All constituents now lie under the general heading “parameters.” This reduction in specificity serves to provide less information to and to obscure changes and relevancy of those changes in the permit. For ease of future analysis and record keeping, we ask that these more specific headings be retained.

³⁶ [Boeing's 2023 Proposed NPDES permit](#), PDF pg 77

³⁷ [Boeing's 2023 Proposed NPDES permit](#), PDF pg 98

³⁸ [Boeing's 2023 Proposed NPDES permit](#), PDF pg 70

Conclusion

Parents Against Santa Susana Field Lab believes Boeing's proposed NPDES should be as health-protective as possible in order to protect the residents, wildlife, environment, and water that are impacted by the site's radioactive and toxic contamination. The LARWQCB should demand the complete cleanup of the site according to the original cleanup agreements of 2007 and 2010 in order to ensure safe water conditions for current and future residents. Because of the impacts of climate change and future cleanup activities that can mobilize contamination, the LARWQCB must test for all COCs historically detected at the site, at every outfall, each rain event, using the best scientific methods available. The health and safety of the communities surrounding the SSFL is paramount and they depend on the actions of the LARWQCB to protect them.

We look forward to working with the LARWQCB on these critical changes and we thank you for your consideration of our concerns.