

Midcoast Community Council
Conceptual Content of Letter Requesting Lead Study and Lead-Free Fuel at Half Moon Bay Airport

Date: February 23, 2022
To: San Mateo County Board of Supervisors
From: Midcoast Community Council
Subject: Lead Contamination and Exposure Near Half Moon Bay Airport

Background:

- Lead is a cumulative toxicant that affects multiple body systems and is particularly harmful to young children. ([WHO](#))
- There is no safe level of lead in blood. Even low levels of lead in blood have been shown to reduce a child's learning capacity, ability to pay attention, and academic achievement. ([CDC](#))
- Tetraethyl lead (TEL) from aviation gas (avgas) is the single-largest source of lead emissions in the United States, accounting for 57% of the 964 tons of lead put into the air in 2008, and 63% of the 728 tons of lead put into the air in 2014, according to the EPA. Commercial jets use kerosene-based jet fuel, which does not contain lead, so the majority of lead pollutions comes from the approximately [170,000 piston-engine aircraft](#) operating out of general aviation airports.
- The estimated annual number of operations at Half Moon Bay Airport (KHAF) is 50,000. This is compared to 114,618 at San Carlos Airport (2017) and 163,327 at Reid-Hillview (2017). "While that's an average of 137 aircraft operations per day, the weather on the coast (overcast approximately 40% of the year) creates clusters of airport operations resulting in "busy days" when the weather is clear, after days or weeks of "slow days" when the weather is overcast." ([SMC Public Works](#))
- Half Moon Bay Airport exclusively [sells 100LL \(leaded\) fuel](#), the most common type of avgas.
- It is estimated that as of 2008, the [Half Moon Bay Airport emitted](#) 151 Kg/Year (333 lbs) of lead. (Compare to 183 Kg for SFO.)
- The Santa Clara County Board of Supervisors [commissioned a study](#) of lead levels in children living near Reid-Hillview Airport in San Jose, and the study was completed in August 2021.
- [The peer-reviewed study](#) analyzed 17,000 blood samples collected in 2011-2020 from children living within 1.5 miles of the airport, and found that those living

within 0.5 miles had significantly higher levels of lead in their blood than those who lived farther away.

- During times of maximum aircraft traffic, children within a half mile of the airport had an increased blood lead level of [0.83 micrograms per deciliter](#)—nearly twice that observed at the height of the Flint Water Crisis.
- According to 2017-18 [US Census data](#), 13,110 people and 2,874 children live in Montara, Moss Beach, and El Granada, all within two miles of the Half Moon Bay Airport.
- In August 2021, the Santa Clara County Board of Supervisors [voted to ban](#) leaded fuel at Reid Hillview and San Martin Airports based on the results of the study. The ban went into effect January 1, 2022.
- The [EPA responded to a petition](#) filed by the County of Santa Clara along with Earthjustice stating that it plans to issue a proposed endangerment finding in 2022, and after a full public notice and comment period, any final endangerment finding in 2023. This lays the groundwork for a full ban on leaded fuel.
- The Santa Clara County Board of Supervisors is now [conducting further testing](#) at the airport to determine how contaminated the soil is.
- Many food-producing farms are located within 0.5 miles of the airport, including the space on the airport property cited as the reason that the Pacific Coast Dream Machines [was canceled](#) in 2022.
- In 2014, the San Mateo County Board of Supervisors [required fuel providers](#) at the San Carlos Airport to stock and sell an unleaded fuel option. However, leaded fuel remains the only option sold at Half Moon Bay Airport.
- According to the [San Carlos Airport association](#), the unleaded UL94 fuel sold at San Carlos Airport can be used by 65% of small planes, is cheaper to buy, causes less wear and tear on the engines, and is “unquestionably better for the environment”. In order to switch, some planes will need a one-time Supplemental Type Certificate, which costs \$100.

Request:

- We request that the San Mateo County Board of Supervisors commission a study of lead exposure and contamination surrounding the Half Moon Bay airport to investigate whether there is a link between lead-based avgas emissions from airplanes operating at Half Moon Bay Airport and the blood lead levels of children living near the airport.

- The study should include testing of children within the areas of Montara, Moss Beach, Princeton, and El Granada, which all fall within two miles of the airport.
- The study should include soil testing of the fields on the perimeter of the airport where food such as brussels sprouts is grown for human consumption.
- The study should include water testing of the Montara Water and Sanitary District wells located at the Half Moon Bay Airport and used for drinking water.
- We also request that San Mateo County take immediate steps to sell unleaded fuel (UL94) at the Half Moon Bay Airport, as it is at the San Carlos Airport, and that the County move entirely to unleaded fuel at SMC airports in the near future.