

# **Reid Hillview Airport Airborne Lead**

**Bay Area Air Quality Management District (BAAQMD)  
Data Analysis**

**Presentation by Douglas Rice - CalPilots Regional Vice-President**

**Data/Statistical Analysis by Stephen McHenry**

The Santa Clara County Airport Commission has had a standing item on the agenda for over a year requesting a report from the Bay Area Air Quality Management District (BAAQMD). BAAQMD has not responded and no report (written or verbal) has been received.

July, 2023 - CalPilots made a California Public Records Request (CPRA) for information regarding Airborne Lead Levels from BAAQMD PRCA monitoring sites.

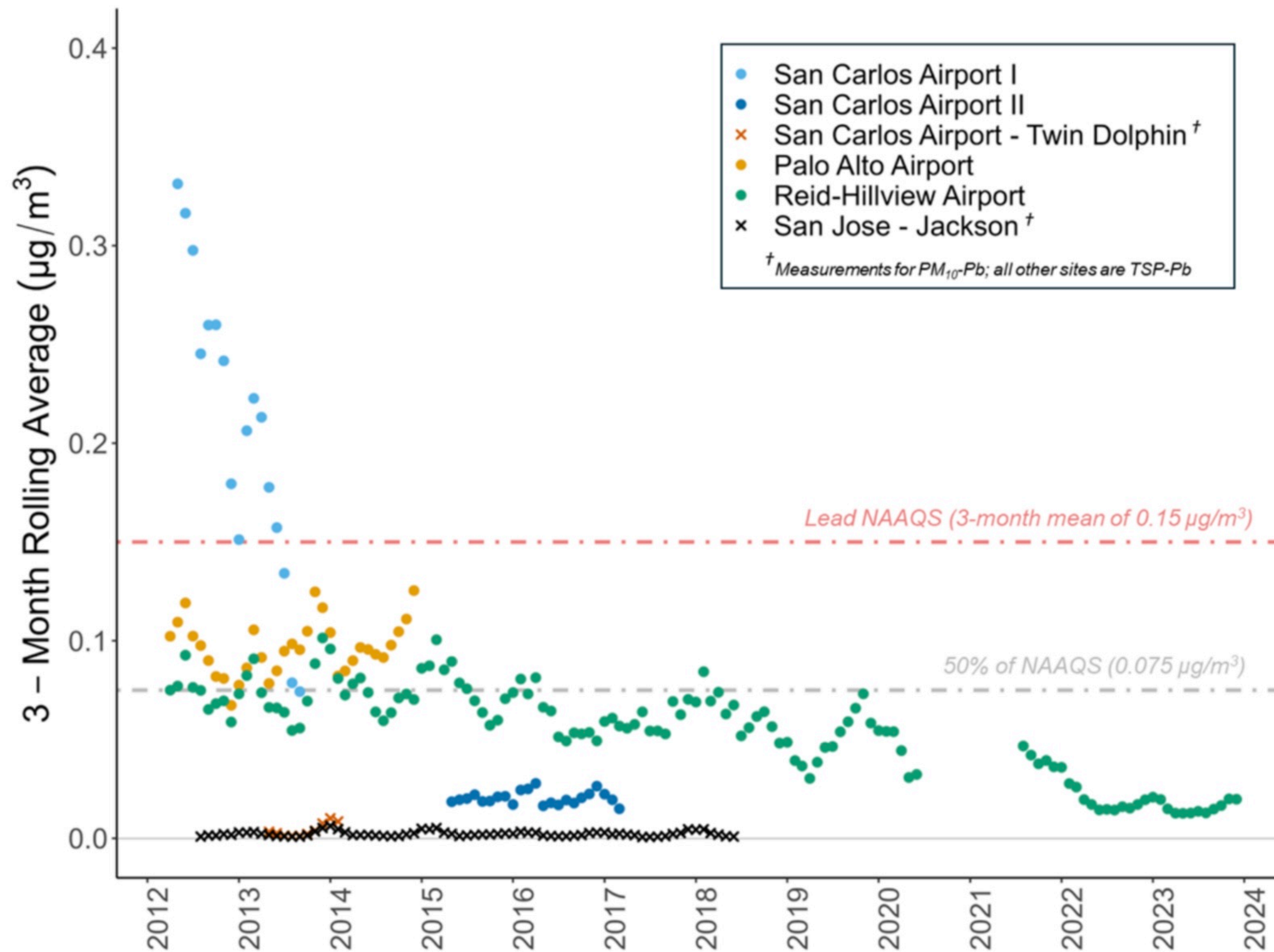
March, 2024 - At San Martin Airport, I engaged with a BAAQMD technician working on the San Martin Airport monitoring site seeking assistance in getting a response from BAAQMD.

June, 2024 - CalPilots sent a letter to the BAAQMD Executive Director advising him of our prior request and the unusable response. We requested that BAAQMD provide data in a usable form.

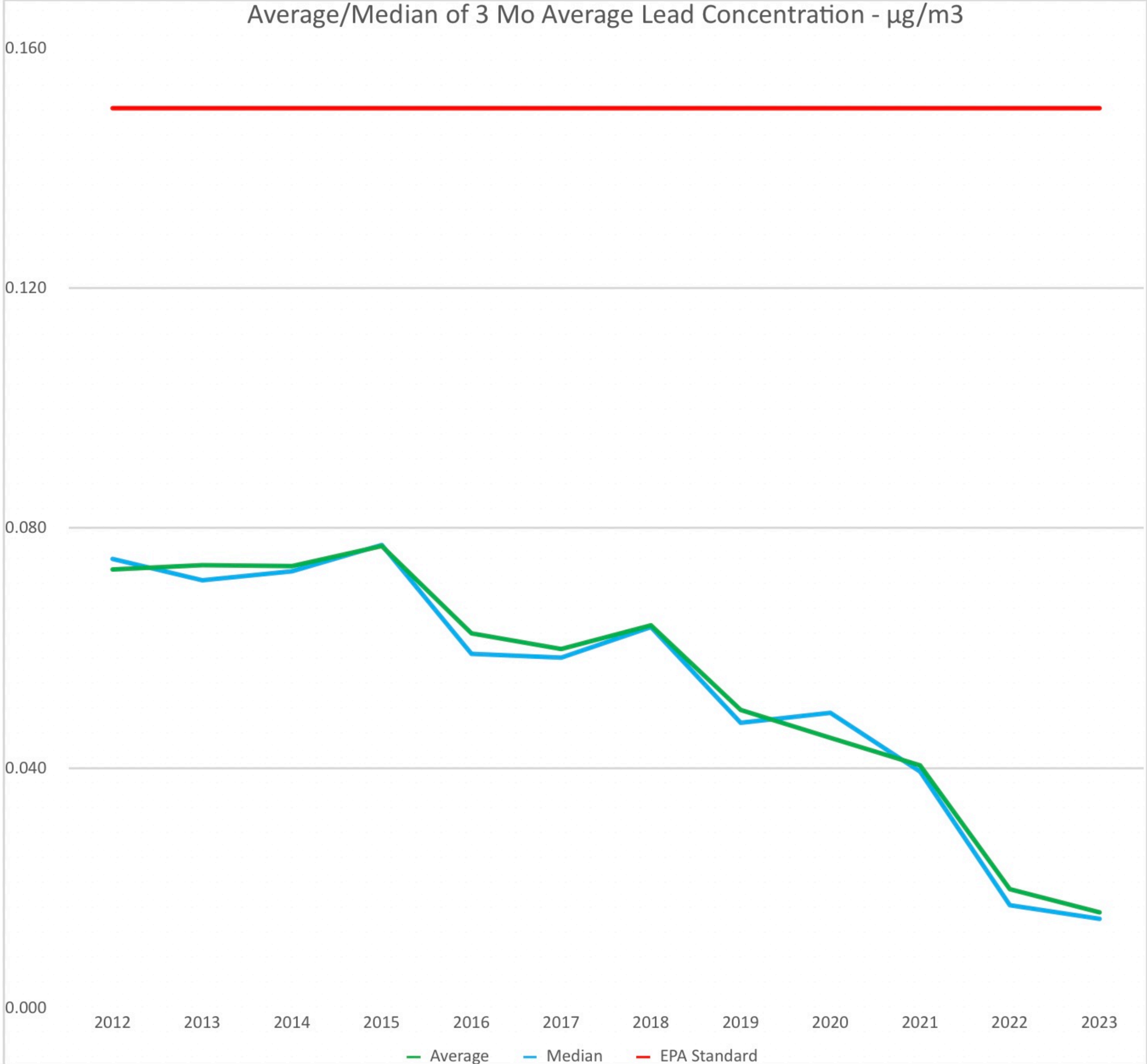
July, 2024 - BAAQMD provided a spreadsheet containing usable data for Reid Hillview Airport for the years 2012 to 2023 as well as miscellaneous data from other monitoring sites.



# 3-Month Rolling Average Lead Concentrations : 2012 – 2023



Average/Median of 3 Mo Average Lead Concentration -  $\mu\text{g}/\text{m}^3$

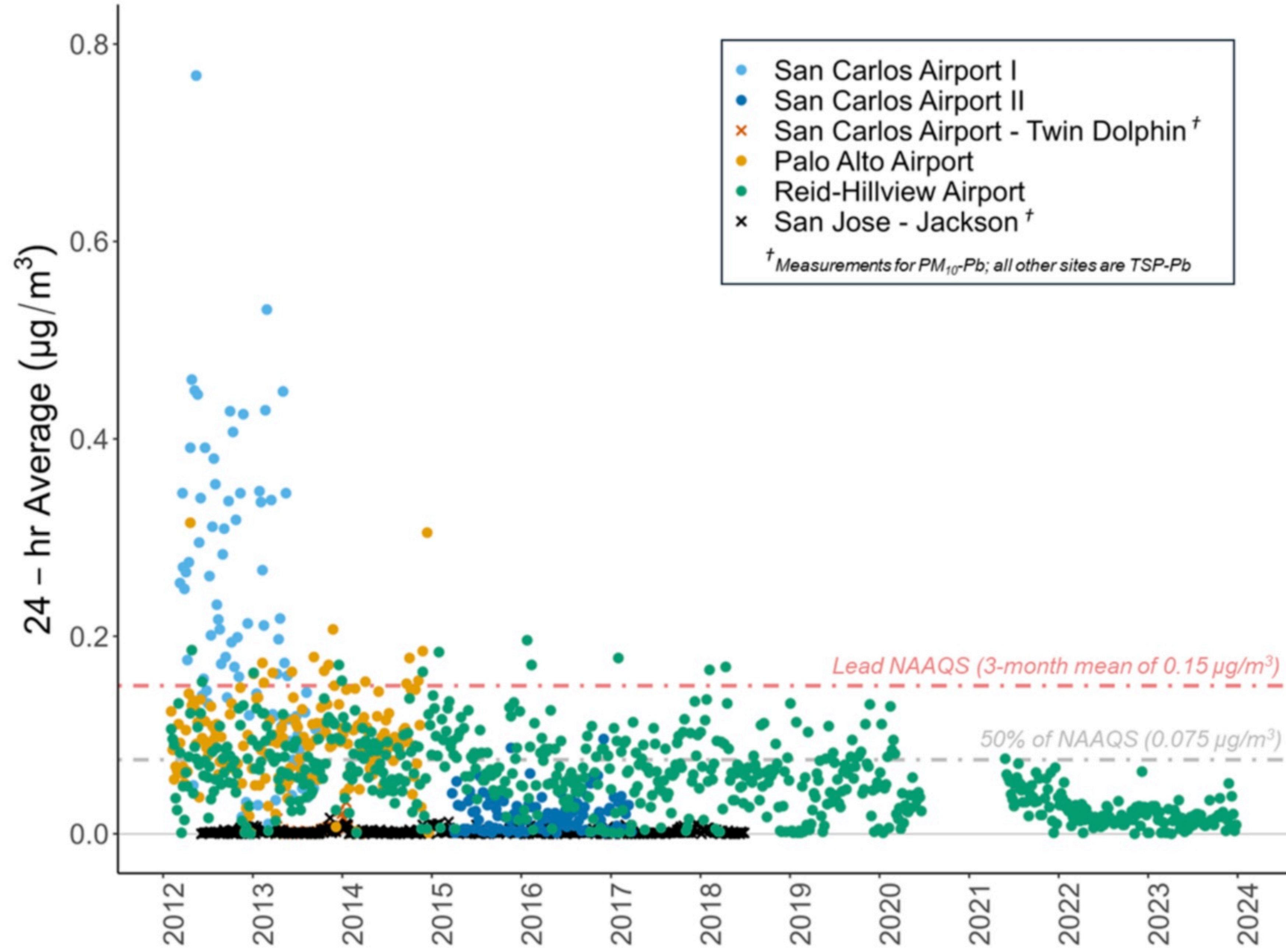


| Airport               | Measurement # | 2012 | 2013  | 2014  | 2015  | 2016  | 2017  | 2018  | 2019  | 2020  | 2021  | 2022  | 2023  |
|-----------------------|---------------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Reid-Hillview Airport | 1             |      | 0.163 | 0.118 | 0.14  | 0.049 | 0.045 | 0.103 | 0.132 | 0.062 |       | 0.029 | 0.001 |
| Reid-Hillview Airport | 2             |      | 0.066 | 0.036 | 0.127 | 0.048 | 0.001 | 0.068 | 0.003 | 0.111 |       | 0.041 | 0.028 |
| Reid-Hillview Airport | 3             |      | 0.127 | 0.108 | 0.099 | 0.024 | 0.107 | 0.014 | 0.001 | 0.001 |       | 0.036 | 0.025 |
| Reid-Hillview Airport | 4             |      | 0.089 | 0.059 | 0.079 | 0.015 | 0.021 | 0.115 | 0.113 | 0.046 |       | 0.052 | 0.028 |
| Reid-Hillview Airport | 5             |      | 0.065 | 0.021 | 0.184 | 0.196 | 0.094 | 0.136 | 0.001 | 0.094 |       | 0.027 | 0.02  |
| Reid-Hillview Airport | 6             |      | 0.073 | 0.068 | 0.006 | 0.036 | 0.178 | 0.053 | 0.003 | 0.078 |       | 0.031 | 0.014 |
| Reid-Hillview Airport | 7             |      | 0.122 | 0.055 | 0.116 | 0.088 | 0.001 | 0.166 | 0.001 | 0.006 |       | 0.023 | 0.022 |
| Reid-Hillview Airport | 8             |      | 0.122 | 0.081 | 0.095 | 0.171 | 0.083 | 0.065 | 0.048 | 0.129 |       | 0.024 | 0.001 |
| Reid-Hillview Airport | 9             |      | 0.094 | 0.125 | 0.068 | 0.004 | 0.024 | 0.055 | 0.002 | 0.085 |       | 0.008 | 0.012 |
| Reid-Hillview Airport | 10            |      | 0.109 | 0.001 | 0.104 | 0.112 | 0.092 | 0.071 | 0.057 | 0.095 |       | 0.017 | 0.011 |
| Reid-Hillview Airport | 11            |      | 0.003 | 0.063 | 0.127 | 0.049 | 0.094 | 0.005 | 0.009 | 0.081 |       | 0.019 | 0.001 |
| Reid-Hillview Airport | 12            |      | 0.081 | 0.091 | 0.134 | 0.019 | 0.062 | 0.094 | 0.103 | 0.02  |       | 0.029 | 0.001 |
| Reid-Hillview Airport | 13            |      | 0.1   | 0.079 | 0.088 | 0.082 | 0.064 | 0.002 | 0.004 | 0.015 |       | 0.02  | 0.025 |
| Reid-Hillview Airport | 14            |      | 0.076 | 0.107 | 0.094 | 0.097 | 0.002 | 0.002 | 0.01  | 0.026 |       | 0.02  | 0     |
| Reid-Hillview Airport | 15            |      | 0.073 | 0.076 | 0.08  | 0.074 | 0.009 | 0.093 | 0.024 | 0.005 |       | 0.013 | 0.013 |
| Reid-Hillview Airport | 16            |      | 0.013 | 0.094 | 0.005 | 0.086 | 0.113 | 0.025 | 0.041 | 0.041 |       | 0.03  | 0.024 |
| Reid-Hillview Airport | 17            |      | 0.077 | 0.09  | 0.077 | 0.083 | 0.042 | 0.091 | 0.037 | 0.011 |       | 0.001 | 0.02  |
| Reid-Hillview Airport | 18            |      | 0.055 | 0.057 | 0.098 | 0.05  | 0.082 | 0.169 | 0.061 | 0.029 |       | 0.014 | 0.013 |
| Reid-Hillview Airport | 19            |      | 0.045 | 0.083 | 0.103 | 0.086 | 0.048 | 0.132 | 0.054 | 0.023 |       | 0.025 | 0.034 |
| Reid-Hillview Airport | 20            |      | 0.063 | 0.103 | 0.118 | 0.125 | 0.07  | 0.086 | 0.074 | 0.022 |       | 0.02  | 0.005 |
| Reid-Hillview Airport | 21            |      | 0.121 | 0.044 | 0.107 | 0.005 | 0.031 | 0.054 | 0.018 | 0.039 |       | 0.015 | 0.016 |
| Reid-Hillview Airport | 22            |      | 0.078 | 0.092 | 0.058 | 0.051 | 0.076 | 0.062 | 0.002 | 0.026 |       | 0.015 | 0.013 |
| Reid-Hillview Airport | 23            |      | 0.089 | 0.065 | 0.045 | 0.086 | 0.09  | 0.034 | 0.008 | 0.057 |       | 0.013 | 0.002 |
| Reid-Hillview Airport | 24            |      | 0.061 | 0.084 | 0.125 | 0.059 | 0.004 | 0.034 | 0.076 | 0.039 |       | 0.006 | 0.01  |
| Reid-Hillview Airport | 25            |      | 0.059 | 0.089 | 0.058 | 0.043 | 0.067 | 0.061 | 0.03  | 0.028 |       | 0.017 | 0.004 |
| Reid-Hillview Airport | 26            |      | 0.033 | 0.071 | 0.078 | 0.068 | 0.067 | 0.07  | 0.109 | 0.034 | 0.076 | 0.012 | 0.006 |
| Reid-Hillview Airport | 27            |      | 0.023 | 0.041 | 0.076 | 0.094 | 0.062 | 0.068 | 0.042 | 0.042 | 0.06  | 0.01  | 0.017 |
| Reid-Hillview Airport | 28            |      | 0.087 | 0.062 | 0.082 | 0.045 | 0.027 | 0.047 | 0.032 | 0.037 | 0.057 | 0.013 | 0.015 |
| Reid-Hillview Airport | 29            |      | 0.092 | 0.052 | 0.066 | 0.033 | 0.039 | 0.048 | 0.082 | 0.023 | 0.053 | 0.007 | 0.009 |
| Reid-Hillview Airport | 30            |      | 0.094 | 0.08  | 0.035 | 0.053 | 0.107 | 0.031 | 0.072 | 0.018 | 0.04  | 0.018 | 0.019 |
| Reid-Hillview Airport | 31            |      | 0.057 | 0.093 | 0.081 | 0.027 | 0.091 | 0.059 | 0.039 |       | 0.035 | 0.009 | 0.02  |
| Reid-Hillview Airport | 32            |      | 0.033 | 0.044 | 0.105 | 0.035 | 0.063 | 0.064 | 0.055 |       | 0.028 | 0.014 | 0.02  |
| Reid-Hillview Airport | 33            |      | 0.024 | 0.045 | 0.082 | 0.058 | 0.053 | 0.067 | 0.031 | 0.048 | 0.028 | 0.028 | 0.015 |
| Reid-Hillview Airport | 34            |      | 0.056 | 0.055 | 0.054 | 0.062 | 0.045 | 0.027 | 0.027 | 0.057 | 0.026 | 0.019 |       |
| Reid-Hillview Airport | 35            |      | 0.05  | 0.043 | 0.054 | 0.051 | 0.006 | 0.054 | 0.043 | 0.071 | 0.017 | 0.011 |       |
| Reid-Hillview Airport | 36            |      | 0.065 | 0.031 | 0.061 | 0.027 | 0.043 | 0.052 | 0.063 | 0.051 | 0.013 | 0.013 | 0.009 |
| Reid-Hillview Airport | 37            |      | 0.037 | 0.053 | 0.082 | 0.043 | 0.054 | 0.079 | 0.07  | 0.044 | 0.013 | 0.013 | 0.008 |
| Reid-Hillview Airport | 38            |      | 0.078 | 0.087 | 0.065 | 0.055 | 0.086 | 0.07  | 0.045 | 0.032 | 0.01  | 0.011 |       |
| Reid-Hillview Airport | 39            |      | 0.05  | 0.056 | 0.059 | 0.042 | 0.037 | 0.064 | 0.061 | 0.047 | 0.013 | 0.011 |       |
| Reid-Hillview Airport | 40            |      | 0.04  | 0.08  | 0.044 | 0.046 | 0.041 | 0.06  | 0.066 | 0.032 | 0.012 | 0.034 |       |
| Reid-Hillview Airport | 41            |      | 0.043 | 0.043 | 0.039 | 0.046 | 0.062 | 0.034 | 0.078 | 0.046 | 0.033 | 0.014 |       |
| Reid-Hillview Airport | 42            |      | 0.072 | 0.1   | 0.062 | 0.067 | 0.021 | 0.11  | 0.095 | 0.018 | 0.015 | 0.013 |       |
| Reid-Hillview Airport | 43            |      | 0.065 | 0.053 | 0.067 | 0.057 | 0.059 | 0.048 | 0.056 | 0.04  | 0.019 | 0.009 |       |
| Reid-Hillview Airport | 44            |      | 0.071 | 0.069 | 0.067 | 0.086 | 0.061 | 0.112 | 0.068 | 0.049 | 0.009 | 0.016 |       |
| Reid-Hillview Airport | 45            |      | 0.096 | 0.102 | 0.044 | 0.099 | 0.07  | 0.062 | 0.078 | 0.037 | 0.009 | 0.019 |       |
| Reid-Hillview Airport | 46            |      | 0.063 | 0.137 | 0.044 | 0.037 | 0.092 | 0.017 | 0.08  | 0.032 | 0.015 | 0.036 |       |
| Reid-Hillview Airport | 47            |      | 0.07  | 0.083 | 0.053 | 0.002 | 0.099 | 0.052 | 0.083 | 0.062 | 0.013 | 0.017 |       |
| Reid-Hillview Airport | 48            |      | 0.056 | 0.022 | 0.017 | 0.109 | 0.071 | 0.065 | 0.041 | 0.033 | 0.015 | 0.022 |       |
| Reid-Hillview Airport | 49            |      | 0.137 | 0.061 | 0.041 | 0.015 | 0.067 | 0.059 | 0.045 | 0.056 | 0.017 | 0.018 |       |
| Reid-Hillview Airport | 50            |      | 0.071 | 0.089 | 0.128 | 0.062 | 0.103 | 0.065 | 0.111 | 0.019 | 0.023 | 0.003 |       |
| Reid-Hillview Airport | 51            |      | 0.113 | 0.03  | 0.119 | 0.078 | 0.116 | 0.064 | 0.071 | 0.019 | 0.014 | 0.014 |       |
| Reid-Hillview Airport | 52            |      | 0.118 | 0.088 | 0.061 | 0.05  | 0.003 | 0.091 | 0.068 | 0.036 | 0     | 0.051 |       |
| Reid-Hillview Airport | 53            |      | 0.116 | 0.05  | 0.133 | 0.004 | 0.007 | 0.071 | 0.131 | 0.056 | 0.027 | 0.009 |       |
| Reid-Hillview Airport | 54            |      | 0.096 | 0.005 | 0.076 | 0.006 | 0.015 | 0.027 | 0.018 | 0.045 | 0.02  | 0.038 |       |
| Reid-Hillview Airport | 55            |      | 0.113 | 0.164 | 0.087 | 0.086 | 0.102 | 0.003 | 0.044 | 0.027 | 0.028 | 0.02  |       |
| Reid-Hillview Airport | 56            |      | 0.111 | 0.018 | 0.014 | 0.086 | 0.053 | 0.002 | 0.002 | 0.062 | 0.008 | 0.003 |       |
| Reid-Hillview Airport | 57            |      | 0.024 | 0.056 | 0.124 | 0.002 | 0.06  | 0.028 | 0.046 | 0.013 | 0.063 | 0.009 |       |
| Reid-Hillview Airport | 58            |      | 0.097 | 0.005 |       | 0.079 | 0.134 | 0.063 | 0.052 | 0.001 | 0.027 |       |       |
| Reid-Hillview Airport | 59            |      | 0.171 | 0.121 |       | 0.066 | 0.079 | 0.002 | 0.005 | 0.067 | 0.027 |       |       |
| Reid-Hillview Airport | 60            |      | 0.095 | 0.11  |       |       | 0.1   | 0.077 |       | 0.01  | 0.019 |       |       |
| Reid-Hillview Airport | 61            |      | 0.155 | 0.08  |       |       | 0.046 | 0.054 |       | 0.037 | 0.001 |       |       |

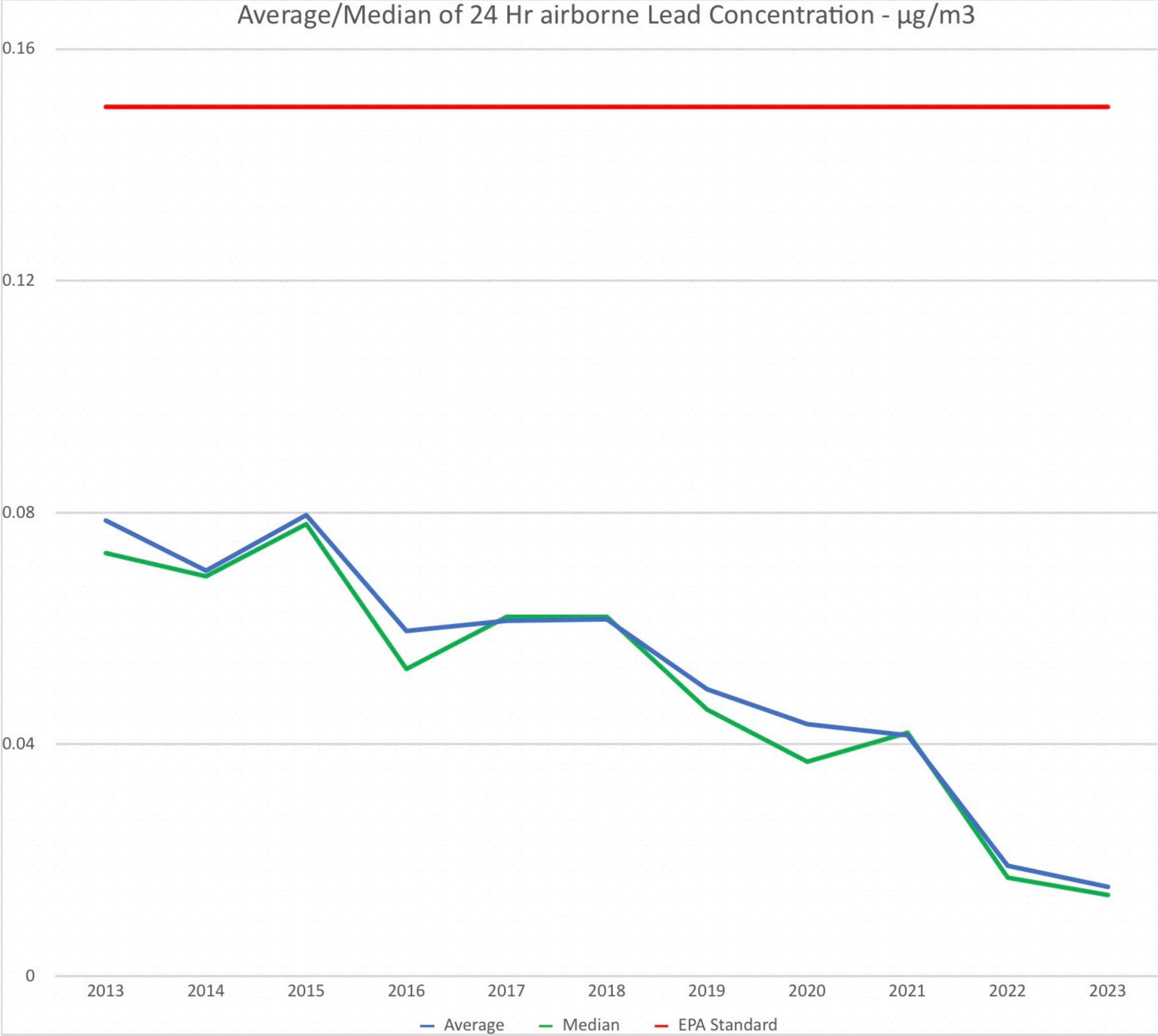
|         |  |  |                    |                    |                    |                    |                   |                    |                    |                    |                    |                    |                    |
|---------|--|--|--------------------|--------------------|--------------------|--------------------|-------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
| Average |  |  | 0.0786229508196721 | 0.0699672131147541 | 0.0795614035087719 | 0.0595593220338983 | 0.061327868852459 | 0.0615737704918033 | 0.0495084745762712 | 0.0434827586206897 | 0.0415555555555556 | 0.0190491803278689 | 0.0154035087719298 |
|---------|--|--|--------------------|--------------------|--------------------|--------------------|-------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|

|               |  |  |              |              |              |              |              |              |              |              |              |              |              |
|---------------|--|--|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| <b>Median</b> |  |  | <b>0.073</b> | <b>0.069</b> | <b>0.078</b> | <b>0.053</b> | <b>0.062</b> | <b>0.062</b> | <b>0.046</b> | <b>0.037</b> | <b>0.042</b> | <b>0.017</b> | <b>0.014</b> |
|---------------|--|--|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|

# 24-hr Average Lead Concentrations : 2012 – 2023

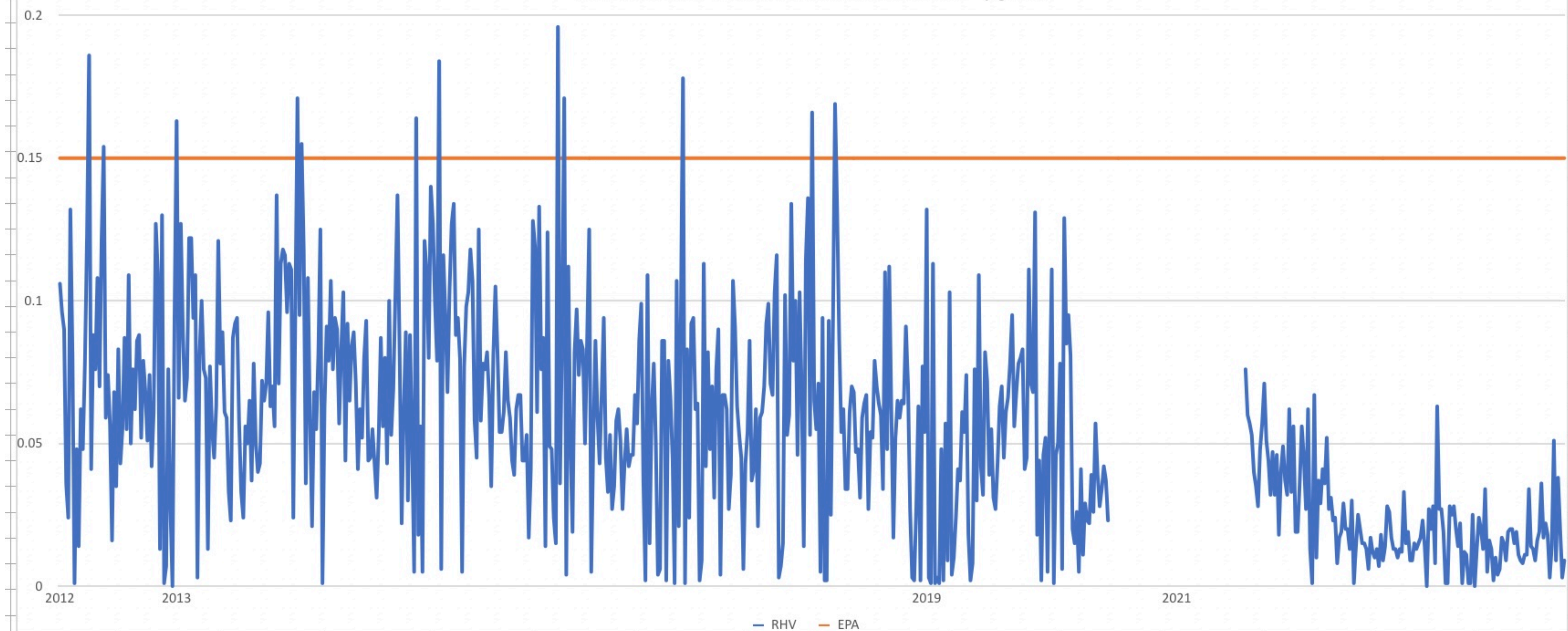


Average/Median of 24 Hr airborne Lead Concentration -  $\mu\text{g}/\text{m}^3$





2012-2023  
20RHV 24 Hr. Airborne Lead Concentration -  $\mu\text{g}/\text{m}^3$



Operations



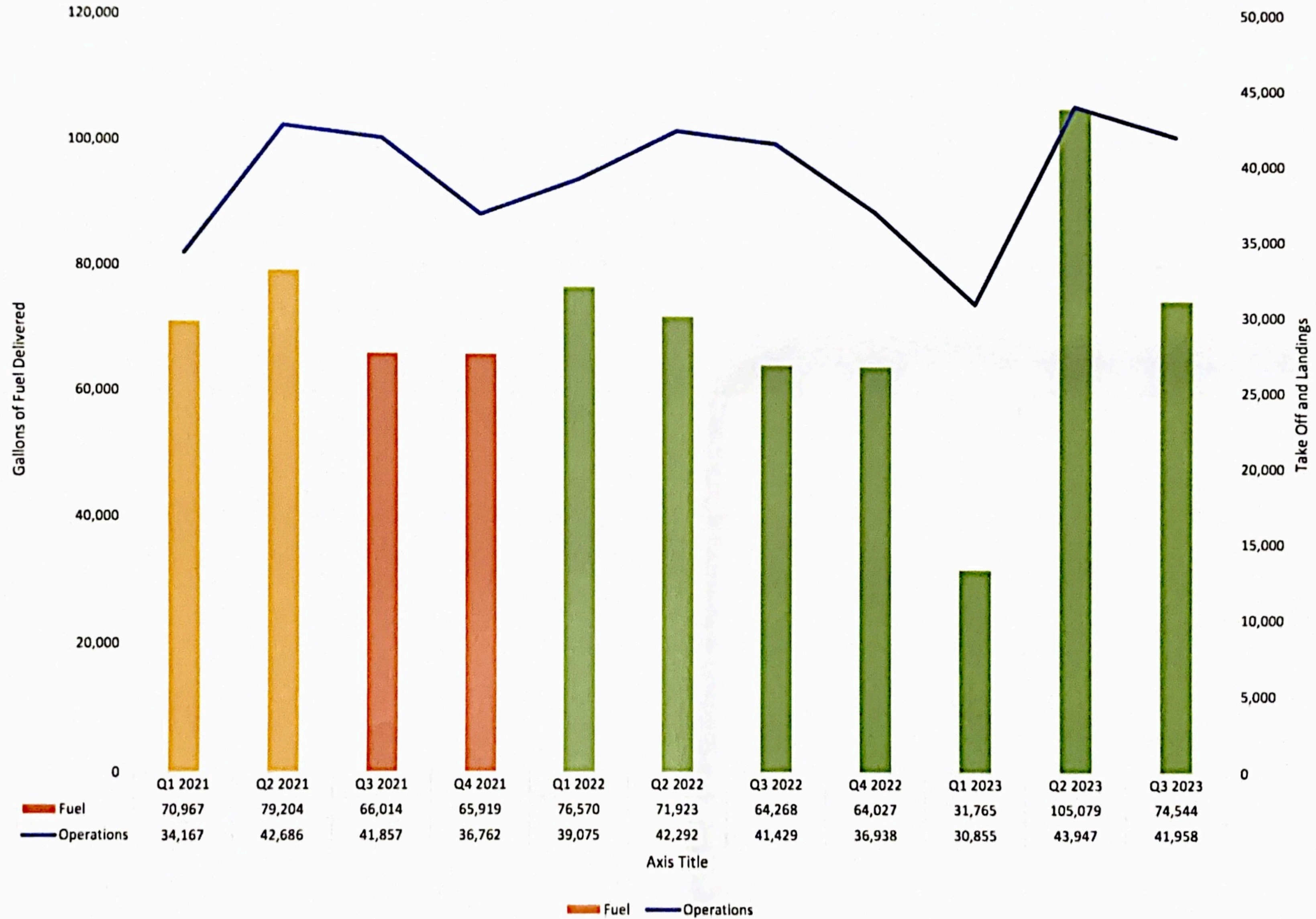
|      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 2020 | 2020 | 2020 | 2020 | 2020 | 2020 | 2020 | 2020 | 2020 | 2020 | 2020 | 2020 | 2020 | 2020 | 2020 |
| 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    |
| 2    | 3    | 4    | 5    | 6    | 7    | 8    | 9    | 0    | 1    | 2    | 2    | 2    | 3    |      |

# Reid-Hillview Airport Operations and AvGas Delivery

January to July 2021 are 100LL Fuel

August to December 2021 include both UL94 & 100LL Fuel

2022 and 2023 are only UL94



## Conclusions:

Lead Levels have been declining since mid-2018 - 20 months before the Pandemic and almost 4 years before Unleaded Fuel Sales began. The reason for this is unclear.

Reid Hillview Flight Operations peaked in 2018 at 208,000 but remain close to 160,000 Takeoffs and Landings per Year

Current Airborne Lead Levels are less than one-tenth of EPA Standards