

- i. **Report Number:** 2 (1st for Year 2)
Title: Annual Report for Year 2 Community Air Protection Program Implementation Funding
Name of Grantee: San Luis Obispo County Air Pollution Control District
Date of Submission: April 4th, 2020
Grant Number: G18-CAPP-27

ii. **Costs associated with specific tasks (See Excel Sheet for Details):**

Report 1 (Year 1 - 1st Report) showed that the SLOAPCD expended a total of \$61,728.49 between March 1, 2018 through March 1, 2019. Our total grant for Year 1 was \$46,142. To offset some of the costs associated with Year 1 (and to follow the instructions of this report) the excel spreadsheet will show costs accrued between February 1, 2019 through February 1, 2020. All of the February 2019 monitoring purchases and staff time will be included in this report, even though they were shown in Report 1.

ii. Report Costs Associated with Specific Tasks	Identifying location for monitoring & Deploying community air monitoring systems (Jaime & Kevin)	\$40,572.00
	Reporting emissions (Karl)	\$25,382.00
	General Staff Time (all other staff not listed above)	\$20,896.75
	Equipment Purchases	\$14,932.54

iii. **How is the grant being utilized to meet the goals of Assembly Bill 617:**

This implementation grant funding is being used to implement the Oceano Community Monitoring Project. Also, staff have now begun planning for the Nipomo Mesa Monitoring Project. The goals of these projects are congruent with the goals of AB617 as staff are selecting locations and deploying community air monitoring systems and improving community capacity to participate in the process.

In March of 2018, a resident of Oceano and Nipomo Mesa nominated their community to the CAP Program. Although Oceano and the Nipomo Mesa was not one of the 10 communities selected by CARB, the San Luis Obispo County Air Pollution Control District (SLO County APCD) wanted to address the community concern and use the implementation funds to purchase, install, and manage particulate matter (PM) sensors in Oceano and the Nipomo Mesa.

The SLO County APCD sought participation from the Oceano community to host monitors by attending community meetings and engaging with political leaders. We were able to secure host sites at the Oceano community Service District (OCSD) and at the homes of Oceano residents. Staff have met internally several times to discuss the plan to deploy monitors on the Nipomo Mesa and how best to improve the community's capacity to participate in the process. Staff engaged with the community and asked the local elementary school (Dorthea Lang) and several community members if they would like to host monitors. Staff is still in the process of finalizing where monitors will be deployed.

iv. **Summary of work completed and in progress since the last progress report:**

BACT/BARCT

SLO County APCD staff determined that all affected sources meet BACT and/or BARCT requirements, with no requirement for an expedited implementation schedule. This task is completed.

Identifying locations for monitoring & deploying community air monitoring systems/reporting emissions (Oceano, California)

The District sought community partners to host the various monitors and sensors. The Oceano Community Services District (CSD) agreed to host three different types of particulate monitors at their corporate yard on 1681 Front Street (Hwy 1) in Oceano. These included a BAM 1020 which are the same units used monitoring stations, a BX-895 Real Time Particulate Monitor, and the inexpensive AirVisual Pro particulate sensor. In addition, two members of the Oceano community agreed to host AirVisual Pros at their residences on 22nd Street and in eastern Oceano. During the study, a map of the monitors and real-time air quality information was posted on our website (<https://www.slocleanair.org/air-quality/oceano-dunes-efforts/oceano-monitoring.php>). The Oceano CSD BAM 1020 and Real Time Particulate Monitor were removed in mid-October, but all three AirVisual Pro sensors remain in the field as of January 2020.

After the Oceano CSD BAM 1020 and Real Time Particulate Monitor were removed, the District began analyzing the 6 months of data. The report analysis focuses on the following topics:

- A comparison between the PM₁₀ measurements from the collocated AirVisual Pro and the BAM 1020.
- A comparison between the PM₁₀ measurements from the collocated BX-895 Real Time Particulate Monitor and the BAM 1020
- A discussion of how PM₁₀ in Oceano—as measured by the Oceano CSD BAM 1020 monitor—compares to other PM₁₀ measured on the Nipomo Mesa.

Several key conclusions from these analyses are fully explained throughout the [Community Monitoring in Oceano, California](#) report and in the Conclusions and Recommendations section. In summary, the two AirVisual Pro sensors tested alongside the BAM 1020 at the Oceano CSD had very different responses to ambient PM₁₀. This indicates that the response of the AirVisual Pro to PM₁₀ is not consistent from one sensor to the next. Nonetheless, some individual sensors can be reasonably accurate, and have the potential to be used as low-cost alternatives to regulatory monitors in certain settings.

The BX-895 Real Time Particulate Monitor that was also collocated at the Oceano CSD was less accurate than both of the AirVisual Pro sensors. As this monitor is more expensive, less accurate, and measures fewer parameters than the AirVisual Pro, the BX-895 will not be used in future projects.

Compared to other South County sites, the BAM 1020 at the Oceano CSD measured the highest background levels of PM₁₀. The elevated background levels are likely due to the influence of traffic, as evidenced by 1) the diurnal pattern having a spike around the time of the morning commute, and 2) a weekday/weekend effect, with significantly lower levels on Sundays compared with the rest of the week. Of all the regulatory monitors in southern San Luis Obispo County, the Oceano CSD monitor was closest to the roadway, so these findings are not surprising.

While background levels were highest at Oceano CSD, it was the less influenced by the windblown dust from the ODSVRA. By comparison, the CSD site only exceeded the state PM₁₀ standard on 4 days, while

over the same time period the standard was exceeded 32 times at CDF, 23 times at Mesa2, and 7 times at Nipomo Regional Park. Thus, despite having higher background levels than nearby monitoring sites, overall this site measures better air quality than the other sites in the region with the exception of Oso Flaco.

Identifying locations for monitoring & deploying community air monitoring systems (Nipomo Mesa, California)

Staff has been formulating a plan to deploy and monitors on the Nipomo Mesa. Staff is planning to deploy monitors near Lopez High School and Dorothea Lange Elementary. The monitors would be deployed for 18 to 24-months to investigate air quality impacts from PM dust primarily originated from Oceano Dunes emissions. The proposed monitoring term aims to capture data during two windy seasons (April to June) and months in between to establish some seasonality of air quality conditions and compared them to the permanent stations in south county.

For the Lopez High School site, Staff is hoping to acquire a customized solar power integrated system. The system will consist of a single trailer that accommodates the solar panels, batteries, power control system and the BAM plus ancillary equipment, all-in-one trailer. For the Dorothea Lange site, Staff is planning to set-up a BAM PM10 and met enclosure at a Nipomo Mesa residents’ home. This setup was used at the Oceano CSD location during the initial six months of the Oceano community monitoring project.

General Staff Time

General staff time refers to discussions with all staff members and managers working on the implementation grant. This includes meetings to discuss progress updates and strategies going forward.

v. Grant funds remaining and expended (See Excel Sheet for Details):

v.	Funding Expended	\$101,783.29
	Funding Remaining	-\$2,479.29

vi. Expenditure summary showing all community air protection program implementation funds for which reimbursement is being requested (See Excel Sheet for Details):

APCD staff submitted an advanced payment request and a disbursement request and received payment in full (\$99,304) on 6/26/2019.

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v.	Funding Expended	\$101,783.29

	Funding Remaining	-\$2,479.29
vi. See Next Two Tabs for details	Reimbursement Requested and Received	\$99,304.00