

**AB617 Community Air Protection Program
(G19-CAPP-19)**

FINAL/ANNUAL REPORT

March 22, 2021 – March 22, 2022

Submitted March 23, 2022



1. Introduction

The Monterey Bay Air Resources District (MBARD) received grant funds from the California Air Resources Board (CARB) to implement the Community Air Protection Program consistent with the goals of Assembly Bill 617 (AB617).

This annual report satisfies Section 2.A of the grant agreement by providing the following information:

- Report number, title, name of Grantee, date of submission, project Grant number;
- Report costs associated with specific tasks;
- Report how grant is being utilized to meet goals of Assembly Bill 617. If applicable, include emission reductions being achieved;
- Summary of work completed;
- Grant funds remaining and expended; and
- Expenditure summary showing all Community Air Protection Program Implementation Funds for which disbursement is being requested.

2. Work Completed and In Progress

This section summarizes the tasks and the dates each task was completed to implement the Community Air Protection Program since MBARD began work on the program in 2018.

The main task completed during the first year of the grant was the development and Board approval of an expedited Best Available Retrofit Control Technology (BARCT) schedule. The schedule was adopted by MBARD’s Board in November 2018 meeting in compliance with the AB617 due date of January 1, 2019. MBARD’s expedited BARCT schedule is available to review on BARCT website here: <https://ww2.arb.ca.gov/our-work/programs/community-air-protection-program/technology-clearinghouse/expedited-barct>

Table 1. Summary of Work Completed Under Community Protection Grants

Activity Completed	Date
Work Completed on Grant G17-CAPP-19	
MBARD Reviews Current Rules for BARCT Stringency and Provides Clearinghouse List to CARB	February 27, 2018
MBARD Reviews and Provides Edits to CARB BARCT Clearinghouse Entries for MBARD	April 12, 2018

Table 1. Summary of Work Completed Under Community Protection Grants

Activity Completed	Date
Rules	
Board Approval of AB617 Grant Agreement	April 18, 2018
AB617 Grant Agreement Executed	April 30, 2018
MBARD Completes Draft Expedited BARCT Schedule	September 2018
MBARD Publishes Notice of Public Workshop to Review Draft Expedited BARCT Schedule via Newspaper, District Website, and Email to Affected Sources	September 25, 2018
MBARD Advisory Committee Presentation of Draft Expedited BARCT Schedule	October 4, 2018
Public Meeting per Health and Safety Code §40920.6.(d)	October 15, 2018
Board Approval of AB617 Grant Agreement Amendment	November 14, 2018
Board Adoption of Expedited BARCT Schedule	November 14, 2018
Grant Agreement AB617 Amendment Executed	December 31, 2018
Participation in CARB and Air MBARD BACT/BARCT Committee to establish clearinghouse per Health and Safety Code §40920.8	Beginning in January 2018 and ongoing meetings every other Tuesday
Participation in CARB Rule Development Process for the Regulation for the Reporting of Criteria Air Pollutants and Toxic Air Contaminants	Beginning in December 2017 and Ongoing
Initiate Development of First BARCT Rule – Rule 441. Boilers, Steam Generators, and Process Heaters	May 23, 2019
Conduct Rule Development Activities	May 23, 2019 to February 19, 2020
Provided Written Comments on the 25-Day Modifications to the Emission Reporting Regulation	June 6, 2019
Execute Database Licenses with Accela	August 20, 2019
Execute Database Professional Services to Implement Accela with Vision33	November 1, 2019
Advisory Committee Review of Rule 441	December 5, 2019
Public Meeting on Rule 441	January 15, 2020
Board Hearing and Adoption of Rule 441	February 19, 2020

Table 1. Summary of Work Completed Under Community Protection Grants

Activity Completed	Date
Work Completed on Grant G18-CAPP-19	
Participation in CARB and Air District BACT/BARCT Committee to establish clearinghouse per Health and Safety Code §40920.8	Beginning in January 2018 and ongoing meetings every other Tuesday
Participation in CARB Rule Development Process for the Regulation for the Reporting of Criteria Air Pollutants and Toxic Air Contaminants and the AB2588 Emissions Inventory Criteria and Guidelines (CTR and EICG)	Beginning in December 2017 and Ongoing
Continue New Database Implementation	Beginning in November 2019 and Ongoing
Begin Internal Review of Next BARCT Rule Internal Combustion Engines	Begin in July 2020
Improve Spanish Language Outreach for Wildfire Communication and AQI video on Website (https://www.mbard.org/wildfire-smoke-information-and-resources)	Summer 2020
Launch Spanish Language Media Outreach (Radio and TV)	Summer 2020
Issued First Quarterly Newsletter and Posted to Website	June 2020
Launched MBARD YouTube Channel	June 2020
Board Approval of Updated Records Retention Schedule	August 19, 2020
Prepare Staff Report Evaluating Need for Internal Combustion Engine Rule Making	October 2020
Began Working with GIS Consultant to Create Map of Permitted Sources for Website	November 2020
Advisory Committee Review of Internal Combustion Engine Rule Making	November 5, 2020
Provided Written Comments on the Proposed Amendments to the Criteria and Toxics Emissions Reporting Regulation and Emission Inventory Criteria and Guidelines (AB2588)	November 12, 2020
Board of Directors Approval - Internal Combustion Engine Rule Making Activities Not Necessary	November 18, 2020
Comment on the 15-day Changes to CTR and EICG	February 3, 2021

Table 1. Summary of Work Completed Under Community Protection Grants

Activity Completed	Date
Work Completed on Grant G19-CAPP-19	
Ongoing Deployment of Clarity Smoke Sensor Network	August 2021
Board of Directors Adopted Nondiscrimination Policies	October 20, 2021
Advisory Committee Meeting – Rule 427 Steam Driven Crude Oil Production Well Rule Revision Not Necessary	February 3, 2022
Board of Directors Approval – Rule 427 Steam Driven Crude Oil Production Well Rule Revision Not Necessary	February 16, 2022
Begin review of final BARCT Rule for Lime Kilns	March 8, 2022

2.1 COMPLETED WORK

This section describes the work completed to implement the Community Air Protection Program under Grant G19-CAPP-19.

MBARD staff continues to participate in CARB’s regular BACT/BARCT clearinghouse committee meetings and emission reporting regulation meetings. MBARD continues to participate through meetings and comments on the development of the revisions to the CARB adopted emission reporting regulation and the updates to the Hot Spots Emission Inventory Criteria and Guidelines.

MBARD continues to implement the expedited BARCT schedule adopted in 2018. At the time the expedited BARCT schedule was adopted, MBARD was designated nonattainment-transitional for the state ozone standard. MBARD was re-designated as attainment for the state ozone standard on February 25, 2021 based on monitoring data for the three-year period of 2017-2019.

In the second quarter of 2020, MBARD began to review the second BARCT rule titled “Internal Combustion Engines”. This BARCT rule category was proposed to reduce emissions of ozone precursor compounds oxides of nitrogen (NOx) and volatile organic compounds (VOC). Our work included reviewing the currently permitted engines at the subject facilities to determine what additional controls could be installed to reduce emissions. MBARD found eight permitted IC Engines, seven portable engines and one stationary engine. The portable engines are subject to phase-out under state law by the year 2029 and only two of the engines had been operated in the past three years. The single permitted stationary engine is an emergency engine and already meets MBARD’s NOx BACT requirement. MBARD’s Board

approved in November 2020 not to move forward with rule making for Internal Combustion Engines.

In October 2021, MBARD drafted three nondiscrimination policies for our Board of Directors to review and approve. These policies were intended to further enhance our existing policies and specifically address 40 C.F.R. Parts 5 and 7. For example, our website is hosted by Streamline and was designed to meet Section 508 and WCAG 2.1 AA guidelines and will continue to be updated as web accessibility laws evolve. MBARD recognizes that to effectively reach and engage the diverse population of the region, we must strive to provide residents with meaningful access to services and with materials in languages other than English. MBARD currently has a number of practices in place for providing services and materials in Spanish, to both the general public and the industry-specific populations that utilize its varied services, such as public notices, press releases, compliance assistance, and grant programs. We also have staff available who can assist with Spanish speaking customers at our office or on the phone.

MBARD continued our Spanish language outreach through the use of radio and television spots. This outreach provides information about the air district and tips on what the public can do to improve air quality. We also created radio spots to explain the available grant programs such as the electric vehicle rebate program. For example, we created a Spanish language AQI video to accompany the air quality data posted during the wildfires (<https://www.mbard.org/wildfire-smoke-information-and-resources>). MBARD will continue to broaden our Spanish language outreach materials.

In the third quarter of 2021, we began our review of the third BARCT rule in the implementation schedule. In this category, we considered revisions to Rule 427 Steam Driven Crude Oil Production Wells. Staff also reviewed another MBARD rule, Rule 417 Storage of Organic Liquids, which is also applicable to the subject crude oil facilities and is intended to achieve reductions of the ozone precursor volatile organic compounds (VOC). Both Rule 417 and Rule 427 are part of MBARD's rules included in the State Implementation Plan (SIP) and any revisions to Rule 417 or Rule 427 will require the approval from the California Air Resources Board and EPA. Therefore, staff considered creating a new rule that would only be applicable to the AB 617 industrial sources and would combine requirements from Rule 417 and Rule 427. The prior BARCT rule evaluations were different because they focused on specific emission limits for specific types of equipment. For example, Rule 441 established a limit of 15 ppm NO_x at 3% O₂ for steam generators. The potential emission reductions related to this rule development activity would come from a vapor control standard and reducing fugitive emissions through routine leak detection and repair (LDAR) activities. Vapor

control can be achieved through the use of a combustion source, such as a flare. Fugitive emissions are the unplanned losses of gases (measured as methane) from components such as wells, pipes, flanges, seals, or valves. MBARD proposed to not proceed with creating a new rule due to several other federal, state, and local air district rulemaking activities in the oil and gas sector in order to avoid duplicate or conflicting requirements. The Board approved this assessment on February 16, 2022

MBARD continued to acquire and use technology tools to enhance our interaction with the public and our permitted sources. Utilizing modern technology tools became critical in 2020 due to the COVID-19 pandemic with having our staff working remotely and needing to maintain our customer service. We elected to use cloud-based platforms for both our permit database and electronic document system Laserfiche. We went live in our new permit database in July 2021. We now are able to accept asbestos notifications online and plan to rollout online permit applications in the second half of 2022.

We have also been able to leverage Laserfiche forms to create online applications for the electric vehicle and bike incentive programs, wood stove changeout program, and our backyard burn permit program. These enhancements provided better access for the public to applications during the COVID-19 pandemic. MBARD will continue to work towards improving public access to our data and grant funds.

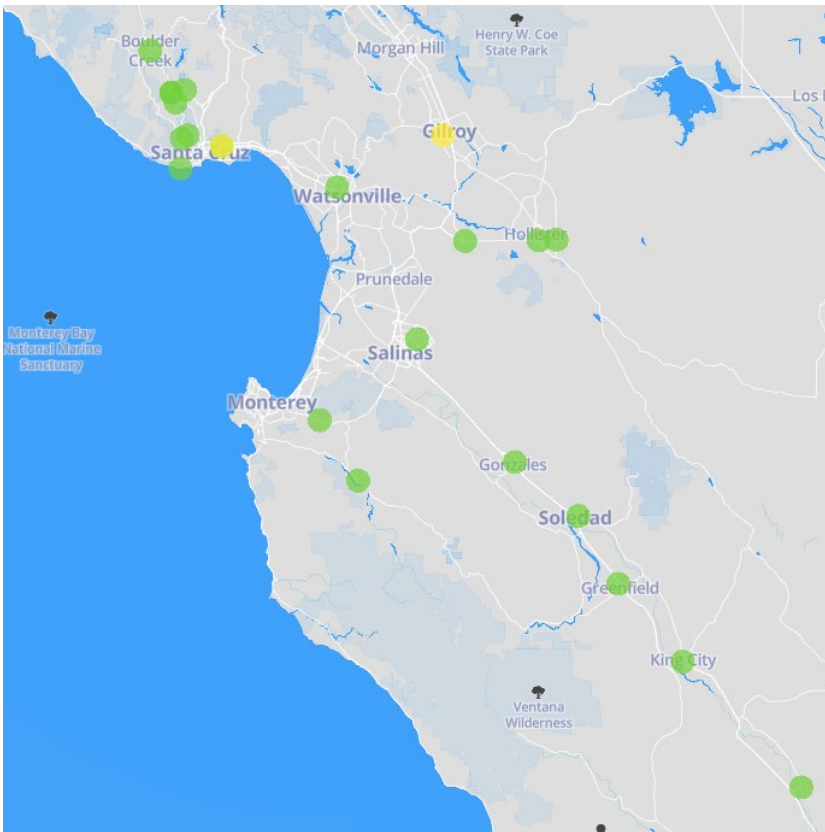
Clarity Sensor Network

In 2021, MBARD's planning and air monitoring teams began a first of its kind project to establish a smoke sensor network within our jurisdiction. They found that when wildfire season came around, our regulatory air monitoring network simply could not provide air quality data of sufficient spatial or temporal granularity to meet stakeholders' needs for real-time, local air quality information. MBARD utilized Clarity's Sensing-as-a-Service solution and was able to more than triple the number of air quality measurement points available to our stakeholders while saving staff time and minimizing the overhead associated with managing a network of air quality monitoring equipment. Clarity created a [video](#) showcasing the smoke sensor network.

Several of the Clarity PM_{2.5} sensors were installed in disadvantaged and low-income communities and near highways to gain a better understanding of localized PM_{2.5} impacts. The Clarity PM_{2.5} sensors are self-powered with a solar battery pack and transmit data using the cellular network. To date, 16 sensors have been installed in the local incorporated jurisdictions and 3 sensors have been installed in more densely populated unincorporated areas of the three counties. The data collected by the sensors can be viewed in real-time on

our website. An important observation we have gained through using the sensors is higher than expected measured PM_{2.5} concentrations at the sensor located in Soledad, CA. This is being reviewed and may be due to agricultural burning combined with specific meteorological conditions. We are planning to expand the network to 30 total sensors by June 30, 2022. We are also considering installing newly developed sensors by Clarity which can measure ozone.

Figure 1 Sensor Map



2.2 ACCOUNTING

This report contains the first and only disbursement request for funds under G19-CAPP-19. The following summarizes the grant funds expended:

- Grant funds received as advanced payment: \$0
- Interest income: \$0
- Grant funds per disbursement request: \$94,191
- Grant funds remaining to be disbursed: \$0

Attachment A contains the detailed summary of the costs.

3. Conclusion

This annual report documents MBARD's completed work to implement the Community Air Protection Program under Grant G19-CAPP-19.

Attachment 1

Accounting of MBARD Costs

Grant Summary

Grant Number

G19-CAPP-19

Category	Funds Expended
Advanced Payment	\$0
Expenditure Categories	
_ Staff Time	\$37,410
_ Establishment of PM2.5 Smoke Sensor Network with a Focus on Disadvantaged Communities, Cloud-Based Permit Database Software, Spanish Language Outreach	\$56,858
Interest Income	\$0
Total Expenditures	\$94,268
TOTAL DISBURSEMENT REQUEST	\$94,191

Time Frame	Job Classifications	Total Project Work Hours (hrs)	Hourly Wage (\$)	Fringe Benefits (\$/Hour)	Total Hrly Rate With Benefits		Wages Expense	Benefits Expense	Totals	Grant Tasks
3/22/2021 - 3/18/2022	Engineering & Compliance Manager	82	\$ 77.61	\$ 55.62	\$ 133.23		\$ 6,364	\$ 4,561	\$ 10,925	Establishing best available retrofit control technology requirement, Participation in CARB BACT/BARCT Committee, BARCT Rule Implementation, Other Community Air Protection implementation effort
3/22/2021 - 3/18/2022	Engineering & Compliance Specialist	96	\$ 42.88	\$ 37.95	\$ 80.83		\$ 4,116	\$ 3,643	\$ 7,759	Other Community Air Protection implementation effort
3/22/2021 - 3/18/2022	Engineering Supervisor	24	\$ 74.44	\$ 58.52	\$ 132.96		\$ 1,787	\$ 1,404	\$ 3,191	Establishing best available retrofit control technology requirement, BARCT Rule Implementation, Other Community Air Protection implementation effort
3/22/2021 - 3/18/2022	Air Quality Engineer II	60	\$ 56.91	\$ 19.03	\$ 75.94		\$ 3,415	\$ 1,142	\$ 4,557	Establishing best available retrofit control technology requirement, BARCT Rule Implementation, Other Community Air Protection implementation effort
3/22/2021 - 3/18/2022	Air Quality Engineer III	24	\$ 62.23	\$ 25.67	\$ 87.90		\$ 1,494	\$ 616	\$ 2,110	Establishing best available retrofit control technology requirement, BARCT Rule Implementation, Other Community Air Protection implementation effort
3/22/2021 - 3/18/2022	Planning and Air Monitoring Manager	24	\$ 70.76	\$ 52.04	\$ 122.80		\$ 1,698	\$ 1,249	\$ 2,947	Establish smoke sensor network, Other Community Air Protection implementation effort
3/22/2021 - 3/18/2022	Supervising Air Monitoring Specialist	16	\$ 54.61	\$ 43.62	\$ 98.23		\$ 874	\$ 698	\$ 1,572	Establish smoke sensor network, Other Community Air Protection implementation effort
3/22/2021 - 3/18/2022	Air Monitoring Specialist	16	\$ 48.81	\$ 40.22	\$ 89.03		\$ 781	\$ 644	\$ 1,425	Establish smoke sensor network, Other Community Air Protection implementation effort
3/22/2021 - 3/18/2022	Air Quality Technician	4	\$ 37.93	\$ 14.50	\$ 52.43		\$ 152	\$ 58	\$ 210	Establish smoke sensor network, Other Community Air Protection implementation effort
3/22/2021 - 3/18/2022	Planner	4	\$ 46.24	\$ 16.31	\$ 62.55		\$ 185	\$ 65	\$ 250	GIS mapping of monitor stations, Other Community Air Protection implementation effort
3/22/2021 - 3/18/2022	Fiscal Assistant	8	\$ 32.31	\$ 17.59	\$ 49.90		\$ 258	\$ 141	\$ 399	Other Community Air Protection implementation effort
3/22/2021 - 3/18/2022	Administrative Services Manager	8	\$ 62.50	\$ 24.15	\$ 86.65		\$ 500	\$ 193	\$ 693	Other Community Air Protection implementation effort
3/22/2021 - 3/18/2022	Air Pollution Control Officer	8	\$ 97.19	\$ 74.22	\$ 171.41		\$ 778	\$ 594	\$ 1,372	Other Community Air Protection implementation effort
Totals		374					\$ 22,402	\$ 15,008	\$ 37,410	

"Other Community Air Protection implementation effort" includes activities such as, outreach, program oversight, report writing, grant administration, website improvements, permit database project, electronic document system, and meeting;