

Bay Area Air Quality Management District

Program Review Report

Fiscal Years 2015-16 through 2021-22

Crowe LLP - Agreement No. 22MSC005

Prepared for the California Air Resources Board and the California
Environmental Protection Agency.

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Disclaimer

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Crowe conducted this Program Review in accordance with the Standards for Consulting Services established by the American Institute of Certified Public Accountants (AICPA). The term program review or review used within this report does not refer to an audit or examination of the subject matter.

Acknowledgment

Crowe LLP (Crowe) worked collaboratively with the Bay Area Air Quality Management District (BAAQMD or District) and California Air Resources Board (CARB) to complete the program review. During informational calls with the BAAQMD, Crowe met with the following personnel:

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Executive Summary

A. Background

The California Air Resources Board (CARB) is responsible for the oversight of the State of California's voluntary air pollution reduction incentives programs, which are implemented in partnership with California's 35 local air pollution control districts and air quality management districts (air districts) and non-air district grantees. As part of this oversight responsibility, CARB contracted with Crowe LLP (Crowe or Program Review staff) to conduct this Program Review¹ in accordance with the Standards for Consulting Services established by the American Institute of Certified Public Accountant of the incentive programs implemented by the Bay Area Air Quality Management District (BAAQMD or District).

CARB incentive program reviews serve the public interest for transparency and accountability, helping to determine that expenditures of State funds achieve intended outcomes and are within legal requirements. This report describes the scope of the program review, projects selected for detailed testing, the resulting findings and recommendations, and the District's commendable efforts. Under the established policies and procedures for program reviews, the District has 30 days from the date of this report's cover letter to submit comments. Crowe's report and the District's response will then be posted on the [CARB Incentive Program Audits and Program Reviews website](#). Crowe staff began the BAAQMD program review in November 2023 and completed it in December 2024.

B. Program Review Process

The program review encompassed an evaluation of the BAAQMD application process, application review process, financials, marketing and outreach strategies, reporting and data security measures. Program review staff obtained and evaluated applicable policies, incentive program guidelines, and agreements, state administrative requirements and general accounting procedures. Program review staff then met with BAAQMD and CARB personnel to gain a high-level understanding of guiding laws, regulations, rules, policies, grant agreements and guidelines. Program review staff submitted multiple data requests through the program review and conducted process walk throughs with grantee subject matter experts (SMEs). Program review staff developed a sample of applicants to conduct analyses of and request applicant file documentation. Program review staff conducted follow up correspondence with the grantee to validate project file contents, request explanations and/or additional data and information. Program review staff also obtained financial records to support how the grantee spent funds. Note, the California Department of Finance was concurrently conducting a

¹ A Program Review is an evaluation of district and/or non-district incentive programs that focuses on whether funded projects meet requirements of the incentive program. CARB developed [program review policies and procedures](#) that provide additional information on program reviews.

financial audit of the BAAQMD program, therefore program review staff reviewed financial information but did not conduct testing of financial data. Program review staff synthesized the data and results of detailed testing to develop findings, recommendations, and commendable efforts.

C. Results

Program review staff identified zero findings during the program review. Program review staff provides 14 general recommendations relevant for multiple programs and 15 program specific recommendations. Program review staff identified 20 commendable efforts across seven of the eight programs as outlined in Exhibit 1. Section 3 of this report provides program-specific recommendations and commendable efforts.

Exhibit 1
Count of Recommendations and Commendable Efforts by Program

Program	Recommendations	Commendable Efforts
1. Carl Moyer Program (CMP)	1	3
2. Community Air Protection (CAP) Program	2	3
3. Funding Agricultural Replacement Measures for Emission Reductions (FARMER)	–	3
4. Goods Movement Emission Reduction Program (GMERP)	1	1
5. Lower-Emission School Bus Program (LESBP)	–	–
6. Clean Car's 4 All (CC4A)	4	3
7. Low Carbon Transportation Incentives and Air	3	3

Program	Recommendations	Commendable Efforts
Quality Improvement Program (LCT and AQIP)		
8. Volkswagen Beneficiary Mitigation Plan (VW)	4	4
Total	15	20

D. Conclusion

Crowe determined that BAAQMD operated the incentive programs in accordance with the requirements of the documents applicable to the programs reviewed within the scope during fiscal years 2015-16 through 2021-22. BAAQMD achieved the emissions reduction objectives of its programs and promoted the adoption of clean vehicles across California.

1. Introduction

CARB reviews incentive programs to ensure that expenditures of grant funds are in accordance with program guidelines and are within legal requirements. Projects are selected for review following a risk assessment. Projects selected for review represent an overall mixture of funds expended in the fiscal years under review. Findings reported here pertain to the individual circumstances described and do not apply to other projects.

The Bay Area Air Quality Management District is California's first regional air district and is responsible for air quality in the San Francisco Bay Area. The District implements air pollution reduction incentive projects in nine (9) counties: Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, Santa Clara, Solano, and portions of Sonoma. The District encompasses approximately 5,000 square miles and is home to over 8 million people. Incentive programs are an important element of regional attainment strategies, reducing emissions to help meet requirements of the federal Clean Air Act Amendments and the California Clean Air Act.

The following eight (8) BAAQMD incentive programs were included in this program review:

1. Carl Moyer Memorial Air Quality Standards Attainment Program (Carl Moyer Program, or CMP)
2. Community Air Protection (CAP) Incentives
3. Funding Agricultural Replacement Measures for Emission Reductions (FARMER) Program
4. Goods Movement Emission Reduction Program (GMERP)
5. Lower Emission School Bus Program (LESBP)
6. Clean Cars 4 ALL (CC4A)
7. Low Carbon Transportation Incentives (LCT) Program and Air Quality Improvement Program (AQIP)
8. Volkswagen Environmental Mitigation Trust for California (VW).

Appendix A includes a description of each of these programs. The scope of the review generally includes grant agreements between CARB and the District made between fiscal year (FY) 2015-16 and FY 2021-22. Exhibit 2 summarizes the applicable fiscal years covered by this program review for each of the eight programs.

The review began with an in-person entrance conference held on December 14, 2023. Staff from BAAQMD, CARB, the California Department of Finance Office of State Audits and Evaluations (Department of Finance) and Crowe attended this meeting. Additionally, Crowe staff presented the results of the program review at an exit meeting held with the grantee on December 19, 2024.

This review was conducted in accordance with CARB's Policies and Procedures (P&P) for review of incentive programs, which are viewable on the CARB website. The purpose of the

program review and the fiscal review audit is to determine whether the District is implementing the incentive programs consistent with the statutory and regulatory authorities listed in Exhibit 3.

Exhibit 2
Bay Area Air Quality Management District
Scope of Program Review

Program	FY 2015-16	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21	FY 2021-22
1. CMP	x	x	x	x	x	x ²	x
2. CAP Incentives ³			x	x	x	- ²	x
3. FARMER			x	x	x	x	x
4. GMERP ⁴	x			x	x		
5. LESBP ⁵	x	x	x	x	x	x	x
6. CC4A ⁶					x	x	x
7. LCT and AQIP ⁷	x	x	x	x	x		
8. Volkswagen Environmental Mitigation Trust					x	x	x

² No funds were appropriated in this year.

³ There was no appropriation for the Community Air Protection Incentives Program (CAP) in FY 2020-2021

⁴ Not subject to audit by the third-party fiscal auditor.

⁵ No Diesel Emission Reduction Act (DERA) projects included in the program review.

⁶ No funds were awarded in FY 2019-20.

⁷ The Air Quality Improvement Program (AQIP) was not included as part of this program review.

**Exhibit 3
 Program Authority**

Program	Authorities
1. CMP	<ul style="list-style-type: none"> Health and Safety Code, sections 44275 through 44299.2
2. CAP Incentives	<ul style="list-style-type: none"> Assembly Bill (AB) 617(C. Garcia, Chapter 136, Statutes of 2017) AB 134 (Committee on Budget, Chapter 254, Statutes of 2017) Senate Bill 856 (Committee on Budget and Fiscal Review, Chapter 30, Statutes of 2018)
3. FARMER	<ul style="list-style-type: none"> AB 134 (Committee on Budget, Chapter 254, Statutes of 2017) AB 109 (Ting, Chapter 249, Statutes of 2017)
4. GMERP	<ul style="list-style-type: none"> Health and Safety Code sections 39625 through 39627.5
5. LESBP	<ul style="list-style-type: none"> Health and Safety Code sections 44299.90 through 44299.91
6. CC4A	<ul style="list-style-type: none"> California Code of Regulations, Title 13, Division 3, Chapter 13, Article 3 AB 630 (Cooper, Chapter 636, Statutes of 2017)
7. LCT and AQIP	<ul style="list-style-type: none"> California Code of Regulations, Title 13, Division 3, Chapter 8.2 Guidelines for the AB 118 (Nunez, Chapter 750, Statues of 2007) Greenhouse Gas Reduction Funding
8. Volkswagen Environmental Mitigation Trust	<ul style="list-style-type: none"> State of California Beneficiary Plan for the Volkswagen Environmental Mitigation Trust June 2018 Bay Area AQMD Volkswagen Mitigation Agreement for Zero Emission Freight and Marine Bay Area AQMD Volkswagen Mitigation Agreement Light Duty Zero Emission Vehicle (ZEV) Infrastructure

2. Review Process Overview

Carl Moyer Memorial Air Quality Standards Attainment Program (CMP)

The Carl Moyer Memorial Air Quality Standards Attainment Program (CMP) is a grant program that funds the incremental cost of cleaner-than-required engines, equipment, and other sources of air pollution. BAAQMD was required to adhere to the 2011 and the 2017 Moyer Program Guidelines (Guidelines) for the program review period. The Guidelines require that emission control technologies be certified or verified by CARB or by U.S. EPA when CARB does not have an applicable certification or verification program.

For the CMP, the scope of this program review covered \$87.6 million in grant awards between FY 2015-16 and 2021-22, representing 465 projects. Crowe reviewed BAAQMD's CMP application preparation/submittal process, documentation requirements, application review and approval process, program and project financials, marketing and outreach strategies, cost effectiveness calculations, reporting, and data security measures. Crowe conducted an initial meeting with BAAQMD staff to gain an understanding of BAAQMD's approach to operating the program, including processes, key documents, and staffing. Crowe submitted a data request that included the population of CMP projects for the program review period of FY 2015-16 through 2021-22. Crowe selected a sample of CMP projects and conducted detailed testing on them to determine whether BAAQMD complied with requirements specified in the CMP Guidelines, implementation manuals, and grant agreement terms and conditions.

Crowe selected 24 projects for file review and conducted virtual inspections of two (2) projects. Project categories within the scope of the program review included off-road construction and mobile agriculture, on-road heavy-duty school bus, marine vessels, and infrastructure.

For school bus projects under CMP, a subset of the CMP program, the scope of the program review covered \$10.3 million in grant awards for FY 2015-16 through 2021-22, which funded 10 projects. Crowe selected two (2) projects for file review and conducted a virtual inspection of one (1) project.

Detailed program funding levels, the number of projects, and the sample of projects selected are provided in Appendix B. A detailed listing of the program review procedures is provided in Appendix C. A list of guidance documents utilized to conduct the program review is provided in Appendix D. Finally, Appendix E includes additional details on the outreach methodologies BAAQMD employs for the CMP.

Community Air Protection (CAP) Incentives Program

CARB established the Community Air Protection Program (CAPP) in response to Assembly Bill (AB) 617 (C. Garcia, Chapter 136, Statutes of 2017). Funding for CAP Incentives primarily comes from the Greenhouse Gas Reduction Fund (GGRF), though some General Fund money has likewise been appropriated in the past. Air districts must follow the *Community Air Protection Incentives Guidelines* (CAP Incentives Guidelines), the *Funding Guidelines for*

California Climate Investments; and for Moyer Program projects implemented using CAP Incentives, those projects must also follow the relevant source category chapter in the CMP Guidelines. CAP Incentives is a statewide program that primarily focuses on facilitating emissions reductions through clean air projects in disadvantaged and low-income communities as well as communities selected by CARB to participate in CAPP and those communities that are consistently nominated for participation. CAP Incentives funds emissions-reducing mobile source vehicle and equipment projects, infrastructure projects, stationary source projects, and other community-identified projects, with a priority on zero-emission projects wherever feasible.

For CAP Incentives, the scope of the program review covered \$87.3 million in grant awards for FY 2017-18 through 2021-22, which funded 182 projects. Crowe reviewed BAAQMD's CAP Incentives application preparation/submittal process, documentation requirements, application review and approval process, program and project financials, marketing and outreach strategies, cost effectiveness calculations, reporting, and data security measures. Crowe conducted an initial meeting with BAAQMD staff to gain an understanding of BAAQMD's approach to operating CAP Incentives including processes, key documents, and staffing. Crowe submitted a data request that included the population of projects for the program review period of FY 2017-18 through 2021-22. Crowe selected a sample of CAP projects and conducted detailed testing on them to determine whether BAAQMD complied with requirements specified in the CAP Incentives Guidelines, district's policies and procedures, and grant agreement terms and conditions.

Crowe selected 18 projects for file review and conducted virtual inspections of three (3) projects. Project categories within the scope of the program review included off-road construction, cargo handling and airport ground support, on-road heavy-duty school buses, locomotives, marine vessels, and infrastructure.

Detailed program funding levels, the number of projects, and the sample of projects selected are provided in Appendix B. A detailed listing of the program review procedures is provided in Appendix C. A list of guidance documents Crowe utilized to conduct the program review is provided in Appendix D.

Funding Agricultural Replacement Measures for Emission Reductions (FARMER) Program

The Funding Agricultural Replacement Measures for Emission Reductions (FARMER) Program provides funding through local air districts for agricultural harvesting equipment, heavy-duty trucks, agricultural pump engines, tractors, and other equipment used in agricultural operations. Funding sources for the program have included the Greenhouse Gas Reduction Fund (GGRF), Air Quality Improvement Program Fund (AQIP), California Tire Recycling Management Fund, Alternative and Renewable Fuel and Vehicle Technology Fund, Air Pollution Control Fund, and the General Fund.

For FARMER, the scope of the program review covered \$7.8 million in grant awards for FY

2017-18 through 2021-22, which funded 69 grantee applications. Crowe reviewed BAAQMD's FARMER application preparation/submittal process, documentation requirements, application review and approval process, program and project financials, marketing and outreach strategies, cost effectiveness calculations, reporting, and data security measures. Crowe conducted an initial meeting with BAAQMD staff to gain an understanding of BAAQMD's approach to operating the program, including processes, key documents, and staffing. Crowe submitted a data request that included the population of projects for the program review period of FY 2017-18 through 2021-22. Crowe selected a sample of projects and conducted detailed testing on them to determine whether BAAQMD complied with requirements specified in the FARMER Guidelines, implementation manuals, and grant agreement terms and conditions.

Crowe selected four (4) projects for file review and conducted a virtual inspection for one (1) project. Project categories within the scope of the program review included off-road agricultural equipment.

Detailed program funding levels, the number of projects, and the sample of projects selected are provided in Appendix B. A detailed listing of the program review procedures is provided in Appendix C. A list of guidance documents utilized to conduct the program review is provided in Appendix D.

Goods Movement Emission Reduction Program (GMERP)

The Prop 1B / Goods Movement Emission Reduction Program (GMERP) is a partnership between CARB and local agencies, air districts, and seaports to reduce air pollution emissions and health risk from freight movement along California's trade corridors including the: Los Angeles / Inland Empire region, Central Valley region, Bay Area region and San Diego / Border region. Local agencies within these trade corridors apply to CARB for funding and offer financial incentives to owners of diesel engine trucks, locomotives, ships, harbor craft, and cargo handling equipment used in freight movement. The incentives are used to upgrade diesel engines to cleaner technologies. Projects funded under this program must achieve early or extra emission reductions not otherwise required by law or regulation and zero-emission infrastructure projects.

For GMERP, the total scope of this program review covered \$17.9 million⁸ in grant awards between FY 2015-16 and 2021-22, representing 75 projects. Crowe reviewed BAAQMD's GMERP application process, documentation requirements, application review and approval process, program and project financials, marketing and outreach strategies, and reporting. Crowe conducted an initial meeting with BAAQMD staff to gain an understanding of BAAQMD's approach to operating the program, including processes, key documents, and staffing. Crowe submitted an initial data request that included the population of applicants for

⁸ Total grant awards and projects are from Year 5 funding for GMERP as of the April 15, 2022 semi-annual report. Years 1 to 4 GMERP funding and grant awards were completed prior to this FY 2015-2016 to FY 2021-2022 program review period and are therefore outside the scope of this program review.

the program review period of FY 2015-16 through 2021-22.

Crowe used the population of GMERP projects to select a sample of applicants to conduct detailed testing to determine whether BAAQMD complied with the requirements within the GMERP Guidelines, and grant agreement terms and conditions. Crowe selected a sample of 10 projects, or a total of \$9.65 million in grant awards, for file review. Sampled projects included the on-road (heavy-duty truck), locomotive, and shore power categories.

Detailed program funding levels, the number of projects, and the sample of projects selected are provided in Appendix B. A detailed listing of the program review procedures is provided in Appendix C. A list of guidance documents utilized to conduct the program review is provided in Appendix D. Finally, Appendix E includes additional details on the outreach methodologies BAAQMD employs for the GMERP.

Lower Emission School Bus Program (LESBP)

LESBP was initially identified as part of the scope of the program review, however BAAQMD did not have an LESBP grant agreement with CARB after July 1, 2015. BAAQMD did not receive new LESBP funding beyond this date.

BAAQMD funded 12 LESBP projects during the scope of our program review period (i.e., between July 1, 2015 and June 30, 2022). BAAQMD funded these 12 projects from its Mobile Source Investment Fund (MSIF).⁹

In 2017, CARB updated the Carl Moyer Program Guidelines to add a school bus category and BAAQMD subsequently stopped utilizing the LESBP guidelines and instead funded school bus projects through the Carl Moyer Program. Crowe did not evaluate any school bus projects funded through LESBP because of the small number of LESBP projects funded during the program review period, and the program was no longer ongoing so recommendations would have had a limited impact on future program implementation.

⁹ The BAAQMD's website specifies that the Mobile Source Incentive Fund (MSIF) revenues are collected from a \$2 fee on vehicles registered in the Bay Area and generate about \$11 million each year (source: [Bay Area Air District Funding Sources](#)).

Clean Cars For All (CC4A)

The Clean Cars for All (CC4A) Program offers grants to income-qualified residents in pollution-affected communities to replace older vehicles with cleaner alternatives such as hybrid, plug-in hybrid, battery electric, and fuel cell electric vehicles. CC4A also provides these residents with mobility options like public transit cards and electric bicycles in lieu of the clean vehicle option. The Bay Area program began in March 2019 with a goal to reduce smog-forming pollutants and support California's environmental goals, which include significant reductions in greenhouse gas emissions and an increase in zero-emission vehicles.

By replacing older, high-emitting, vehicles with newer, cleaner and more fuel-efficient cars or other transportation options, this program reduces smog-forming pollutants (NO_x and ROG) to help meet State and Federal air quality standards. The CC4A Program also supports the Bay Area and California's goals for reductions in greenhouse gas emissions (80% below 1990 levels by 2050), and zero-and near-zero emission vehicle deployment (90% of the Bay Area passenger vehicles by 2050 and 5 million vehicles statewide by 2030).

BAAQMD's CC4A program has received over \$73 million in program funding from state and local funds since inception. Funding for the district's CC4A program comes from a variety of sources, including California Climate Investments, Volkswagen Settlement Funds, and the Air Quality Improvement Program. Eligible program participants are legal vehicle owners living within the BAAQMD's jurisdiction, in qualifying zip codes, with an income at or below specified percentages of the Federal Poverty guidelines. Participants can only apply once per household and cannot combine this grant with those from other similar state or regional programs.

Participants can choose from a range of clean vehicles or mobility options, with grant amounts ranging from \$5,000 to \$9,500 based on the transportation option selected and the participant's income level. Additional incentives are available for home charger installations and public charge cards.

The application process is managed through an online portal, with support available from case managers. Grid Alternatives¹⁰, a contractor for CC4A since the program's inception provides case management support and assists with outreach to low-income households in disadvantaged communities. The program includes stringent eligibility and documentation requirements and post-inspection and vehicle scrapping are mandatory to complete the grant process.

The CC4A Program offers up to \$2,000 in electric vehicle charger rebates to participants who purchase or lease a new or used hybrid vehicle, plug-in hybrid electric vehicle (PHEV) or battery hybrid electric vehicle (BHEV) and complete their post-inspection and vehicle dismantling. Participants can choose between a Level 2 home charger or a portable charger,

¹⁰ Grid Alternatives is a non-profit organization based in Oakland, California, with eight affiliate offices serving all of California, Colorado, Washington D.C., Virginia, Maryland and Delaware.

with reimbursement covering the charger, installation, labor, and necessary permits.

The scope of this program review includes grant awards between CARB and BAAQMD made in fiscal years FY 2016-17 through 2021-22. After noting that the Bay Area did not adopt and implement this program until 2019, Crowe adjusted the program review period to include FY 2019-20 through 2021-22. The review began with an entrance conference held on December 14, 2023.

Based on the procedures we performed as described in Appendix C, Crowe determined that BAAQMD operated the CC4A program in accordance with the requirements of the CC4A Guidelines, and included in guiding legislation¹¹, the CC4A Implementation Manuals, and grant agreements developed by CC4A and the Enhanced Fleet Modernization Program (EFMP) Plus Up program.

Crowe reviewed CC4A's application process, documentation requirements, application review process, financials, marketing and outreach strategies, reporting and data security measures. Crowe conducted an initial meeting with CC4A staff to gain an understanding of BAAQMD's approach to operating the program and key documents, processes and personnel. Crowe submitted an initial data request that included the population of applicants for the program review period of fiscal year 2019-20 through 2021-22. Crowe used the population of CC4A projects to select sample applicants to conduct detailed testing to determine whether BAAQMD complied with the requirements within the CC4A Guidelines, CC4A Implementation Manuals, and grant agreement terms and conditions.

In addition, Crowe reviewed dealership contracts to assess compliance with program requirements. Dealerships play a significant role in the CC4A application process as they are responsible for the sale of hybrid, plug-in hybrid, hydrogen fuel cell, and battery electric vehicles. Crowe interviewed BAAQMD staff to understand how dealership employees are trained and how they execute sales for funding applicants. Crowe sampled nine (9) of 89 total Bay Area dealerships to determine if these dealerships complied with their contracts with BAAQMD. Crowe found that the dealerships complied with requirements of their contracts. While relations between CC4A and dealerships are overall positive, Crowe identified areas for improvement in efficiency and standardization for dealerships which are included in the Recommendations section of this report.

In very rare cases, if a vehicle is sold at an incorrect price or to an applicant who does not qualify, the vehicle must be returned. Crowe obtained the report of all returned vehicles across dealerships. There were 6 returned vehicles, all purchased in 2020, and the sales were completed by various dealerships. Reasons for returns were either that the miles per gallon (MPG) requirement was not met, a hybrid was purchased instead of the PHEV or BEV specified on the award letter, or there was an open recall on the Carfax report.

As part of the program requirements, applicants must take their vehicles to a dismantler for an

¹¹ [Project Background for Clean Cars 4 All | California Air Resources Board.](#)

inspection prior to the release of funds, and then back to the dismantler upon purchase of the new vehicle. There are currently only two companies that are verified dismantlers, Infinity Salvage and Pick N Pull. There is one Infinity Salvage location and five Pick N Pull locations in the Bay Area. Crowe obtained the signed dismantler agreements between the two dealerships and BAAQMD and determined the dismantlers complied with the terms of their agreement.

Crowe selected 18 applicants to determine compliance with the CC4A Guidelines, CC4A Implementation Manuals, and grant agreements. The program review staff analyzed the submitted documents and noted that it followed the application process workflow provided by the BAAQMD team. The samples selected each had their application, terms and conditions, award letter, documentation of appropriate reviews, and evidence of payment.

A list of guidance documents Crowe utilized to conduct the program review is provided in Appendix D.

Low Carbon Transportation (LCT) Incentives and Air Quality Improvement Program

The Low Carbon Transportation (LCT) Incentives and Air Quality Improvement Program provides mobile source incentives to reduce greenhouse gas, criteria pollutant, and toxic air contaminant emissions through the deployment of advanced technology and clean transportation in the light-duty and heavy-duty sectors. LCT investments are supported by Cap-and-Trade auction proceeds.

For the LCT, the scope of the program review covered \$2.7 million in grant awards for FY 2016-17 through 2019-20, representing one project. In 2017, BAAQMD was awarded \$2.7 million in funding by CARB to support the Goodwill Industries Electric Delivery Vehicle Demonstration Project. The project scope included replacing old diesel equipment with ten battery-electric delivery trucks and one battery-electric debris truck, installing supporting charging infrastructure, and collecting operational data. Goodwill Industries uses the vehicles for pick-up and delivery of donations in the Bay Area.

We reviewed BAAQMD's grant agreement with CARB, compliance requirements (e.g., meeting participation, approval process, payment, and oversight) and evaluated compliance with the FY 2014-15 funding plan for the Air Quality Improvement Program and LCT Greenhouse Gas Reduction Fund Investments, and the FY 2014-15 Grant Solicitation for Zero-Emission Truck and Bus Pilot Commercial Deployment Projects. Crowe conducted an initial meeting with BAAQMD staff to gain an understanding of BAAQMD's approach to operating the LCT program, including processes, key documents, and staffing. Crowe submitted a data request which included the grant agreement, grant provisions, business process workflows, and additional work statements. Crowe used these documents to determine whether BAAQMD followed the grant agreement terms and conditions.

Crowe selected the Goodwill Industries project for detailed file review as part of the program review.

We provide detailed program funding levels, the number of projects, and the sample of projects selected in Appendix B. Appendix C includes a list of guidance documents utilized to conduct the program review.

Volkswagen Environmental Mitigation Trust Program

On October 25, 2016, and May 17, 2017, the United States District Court for the Northern District of California approved Partial Consent Decrees (Consent Decrees) as part of the settlement agreements with Volkswagen (VW) for their use of illegal defeat devices in certain 2.0-liter and 3.0-liter diesel vehicles.

Appendix D (the Environmental Mitigation Trust) of the first Consent Decree requires VW to pay \$2.7 billion into an Environmental Mitigation Trust, \$423 million of which was allocated to the State of California to fund projects to reduce emissions of NOx caused by the subject vehicles. Past and future excess NOx emissions emitted from VW vehicles are intended to be mitigated by the actions prescribed in the Environmental Mitigation Trust.

CARB was designated as beneficiary to act on the State's behalf in implementing its allocation of the VW Environmental Mitigation Trust. As required by the Consent Decree, CARB developed a Beneficiary Mitigation Plan (BMP) through a public process. The Plan was approved in May 2018. The Plan describes the eligible mitigation actions from the list specified in the Consent Decree that will be funded from the State's allocation of the Trust.

The Plan allocates \$360 million of California's total Trust allocation to statewide funding opportunities in the following five project categories that are focused mostly on "scrap and replace" projects for the heavy-duty sector:

1. Zero-emission transit, school, and shuttle buses (\$130M)
2. Zero-emission class 8 freight and port drayage trucks (\$90M)
3. Zero-emission freight and marine projects (\$70M)
4. Combustion freight and marine projects (\$60M)
5. Light-duty zero-emission vehicle infrastructure (\$10M).¹²

Under agreement with CARB, the BAAQMD is serving as administrator ("VW Administrator") of the Trust funds for the award of Trust funding for the Zero-Emission Freight and Marine (ZEFM) program (category 3 above) and Light-Duty Zero-Emission Vehicle Infrastructure (LDI) program (category 5 above). This portion of the program review focuses on these two categories. Appendix A provides additional information on these two programs.

¹² These categories and allocation amounts were determined with public input and are based on technology availability, the market demand as demonstrated by other funding programs, and the ability of the project funding categories to fully mitigate the excess NOx caused by the subject VW diesel vehicles.

For VW, the scope of this program review covered an \$88 million allocation to the BAAQMD to fund ZEFM and LDI projects. Between FY 2019-20 and 2021-22, \$23.42 million was awarded representing 145 deployed projects (see Appendix B). Crowe reviewed BAAQMD's VW application process, documentation requirements, application review and approval process, program and project financials, outreach strategies and reporting. Crowe conducted an initial meeting with BAAQMD staff to gain an understanding of BAAQMD's approach to operating the program, including processes, key documents, and staffing. Crowe submitted an initial data request that included the population of grantees for the program review period of FY 2019-20 through 2021-22. Crowe used the population of applicants to select a sample of grantees to conduct detailed testing to determine whether BAAQMD complied with the requirements within the Beneficiary Mitigation Plan, implementation manuals, and mitigation agreement terms and conditions.

We selected 31 projects for file review and conducted virtual inspections of six projects. Detailed program funding levels, the number of projects, and the sample of projects selected for the program review are identified in Appendix B. A detailed listing of the program review procedures is provided in Appendix C. A list of guidance documents utilized to conduct the program review is provided in Appendix D.

3. Results

This section provides the results of the program review and is organized as follows:

- A. *Findings*
- B. *Commendable Efforts*
- C. *Recommendations.*

A. Findings

“Findings” are Grantee’s practices found to be inconsistent with one or more requirements specified in statute, State guidelines, or Policies and Procedures. See Appendix D for the sources of these requirements. “Conditions” are detailed descriptions of the Grantee’s practices that resulted in findings as revealed by the review. “Required Actions” are the minimum actions the Grantee must take to mitigate the findings.

CARB staff may offer “Recommendations” when Grantee practices are found to be consistent with program requirements; although mitigation is not required, a change in practices would improve program effectiveness, efficiency, or transparency.

Carl Moyer Memorial Air Quality Standards Attainment Program (CMP)

Program review staff identified no findings during the program review.

Community Air Protection (CAP) Incentives Program

Program review staff identified no findings during the program review.

Funding Agricultural Replacement Measures for Emission Reductions (FARMER) Program

Program review staff identified no findings during the program review.

Goods Movement Emission Reduction Program (GMERP)

Program review staff identified no findings during the program review.

Lower Emission School Bus Program (LESBP)

Crowe did not evaluate any school bus projects funded through LESBP because of the small number LESBP projects funded during the program review period, and the program was no longer ongoing.

Clean Cars For All (CC4A)

Program review staff identified no findings during the program review.

Low Carbon Transportation (LCT) Incentives and Air Quality Improvement Program

Program review staff identified no findings during the program review.

Volkswagen Environmental Mitigation Trust Program

Program review staff identified no findings during the program review.

B. Commendable Efforts

A commendable effort is an exceptional practice that goes beyond the basic requirements for implementing an incentive program. Resulting from this review, Crowe identified the following commendable efforts by the Grantee.

Carl Moyer Memorial Air Quality Standards Attainment Program (CMP)

Crowe provides three (3) commendable efforts for the programs as required by the program review guidelines. The commendable efforts include the following:

1. Program Review staff commends the Grantee for its responsiveness and diligence in responding to requests for information and making staff at all levels available to the program review team.
2. Program Review staff commends the Grantee for its adaptability during COVID-19 through efforts such as making the pre and post inspections virtual and allowing application extensions.
3. Program Review staff commends the Grantee for utilizing allowable flexibility to maximize the number of projects funded while minimizing the burden on the grantees through BAAQMD's approach to the cost effectiveness calculations. For example, by using the maximum project life, BAAQMD provide grantees with the maximum possible funds for that specific project.

Community Air Protection (CAP) Incentives Program

Crowe provides three (3) commendable efforts for the programs as required by the program review guidelines. The commendable efforts include the following:

1. Program Review staff commends the Grantee for its responsiveness and diligence in responding to requests for information and making staff at all levels available to the program review team.
2. Program Review staff commends the Grantee for its adaptability during COVID-19 through efforts such as making the pre and post inspections virtual and allowing application extensions.

3. Program Review staff commends the Grantee for utilizing allowable flexibility to maximize the number of projects funded while minimizing the burden on the grantees through BAAQMD's approach to the cost effectiveness calculations. For example, by using the maximum project life, BAAQMD provide grantees with the maximum possible funds for that specific project.

Funding Agricultural Replacement Measures for Emission Reductions (FARMER) Program

Crowe provides three (3) commendable efforts for the programs as required by the program review guidelines. The commendable efforts include the following:

1. Program Review staff commends the Grantee for its responsiveness and diligence in responding to requests for information and making staff at all levels available to the program review team.
2. Program Review staff commends the Grantee for its adaptability during COVID-19 through efforts such as making the pre and post inspections virtual and allowing application extensions.
3. Program Review staff commends the Grantee for utilizing allowable flexibility to maximize the number of projects funded while minimizing the burden on the grantees through BAAQMD's approach to the cost effectiveness calculations. For example, by using the maximum project life, BAAQMD provide grantees with the maximum possible funds for that specific project.

Goods Movement Emission Reduction Program (GMERP)

Crowe provides one (1) commendable effort for the program as required by the program review guidelines. The commendable efforts include the following:

1. Program Review staff commends the Grantee for its responsiveness and diligence in responding to requests for information and making staff at all levels available to the program review team.

Clean Cars For All (CC4A)

Crowe provides three (3) commendable efforts for the program as required by the program review guidelines. The commendable efforts include the following:

1. Program Review staff commends the Grantee for its responsiveness and diligence in responding to requests for information and making staff at all levels available to the program review team.
2. Program Review staff commends the Grantee for its adaptability during COVID-19 through efforts such as making the pre and post inspections virtual and allowing application extensions.

3. Program Review staff commends the Grantee on its use of the Fluxx system. This highlights its commitment to operational transparency.
4. Air District continues to review and update policies and processes to avoid duplicate payments made to the same applicant. During the program review period, program review staff identified a duplicate payment made to a single applicant. The applicant submitted two separate applications using different e-mail addresses and was approved for payment under both applications. BAAQMD implemented the following programmatic changes to help prevent and identify duplicate applicants:
 - a. **Terms and Conditions** – updated on 2/5/2020 to specify “Participants may submit one application per household.”
 - b. **Terms and Conditions** – updated on 4/28/2021 to define household, clarify grantees can only apply once per household and lifetime, and identify that the “participant may not receive more than one grant per vehicle owner even if owners are not in the same household.”
 - c. **Internal application review procedures to check for participants applying again after receiving a grant.**
 - d. **Add new fields to the application** (e.g., first time or repeat applicant) to further assist with identifying participants who are not eligible to apply. Review participant responses during the standard application review process and compare them with the “Duplicate Application Check report.”

Low Carbon Transportation (LCT) Incentives and Air Quality Improvement Program

Crowe provides three (3) commendable efforts for the program as required by the program review guidelines. The commendable efforts include the following:

1. Program Review staff commends the Grantee for its responsiveness and diligence in responding to requests for information and making staff at all levels available to the program review team.
2. Program Review staff commends the Grantee for its adaptability during COVID-19 through efforts such as making the pre and post inspections virtual and allowing application extensions.
3. Program Review staff commends the Grantee for consistency in program implementation, fiscal transparency, project management, and working towards achieving expected emission reductions in the face of unexpected challenges, equipment issues, and delays especially with zero-emission technologies.

Volkswagen Environmental Mitigation Trust Program

Crowe provides four (4) commendable efforts for the program as required by the program review guidelines. The commendable efforts include the following:

1. Program Review staff commends the Grantee for its responsiveness and diligence in responding to requests for information and making staff at all levels available to the program review team.
2. Program Review staff commends the Grantee for its adaptability during COVID-19 through efforts such as allowing application extensions.
3. Program Review staff commends the Grantee for consistent and collaborative communications with applicants throughout the project evaluation/selection phase, with clear requests for additional required information. Also, the Grantee showed flexibility to work with recipients to adjust project schedules, via amendments, when caused by unforeseen and uncontrollable delays, and to replace projects with ones of similar benefit.
4. Program Review staff commends the Grantee for being able to award 80 percent of the ZEFM funds to projects within disadvantaged/low-income communities (by the fourth solicitation) when the BMP only called for 75 percent funding. Program Review staff commends the Grantee for being able to award 100 percent of the VW LDI funds to projects within disadvantaged/low-income communities when the BMP only called for 35 percent funding.

C. Recommendations

Crowe provides recommendations for the programs as required by the program review guidelines. The recommendations are intended to enhance current program effectiveness and to inform future program development. Recommendations may include new program processes or opportunities to enhance current processes already performed by BAAQMD to meet the requirements of program guidelines. The program review period ended in 2021-22 and the recommendations are based on each program as of this date. BAAQMD may have already implemented some of the recommendations in part or in full. The recommendations include the following:

General (recommendations relevant for multiple programs)

1. Outreach

- a. **Research Decline in Outreach Activities.** Research and understand the reasons behind the decline in outreach activities since 2020, which was likely due to the COVID-19 pandemic, and develop strategies to increase engagement through email, physical mail, and presentations. Consider working with a third-party vendor to engage in social media outreach or identify new approaches to increase participation (e.g., incentives for participation). Understanding the decline in participation may help in formulating outreach strategies to increase participation.

- b. **Collect Information to Understand Effectiveness of Source Attribution.** Make the source attribution questionnaire in the application mandatory. This can inform BAAQMD about which outreach methods are most effective in raising awareness about the program and encouraging people to apply for grants.
- c. **Standardize Outreach Event Categories.** Implement a standardized categorization system for outreach events, such that each event is consistently labeled with pre-defined categories. This can reduce the time spent on recategorizing events and improve data accuracy and uniformity.
- d. **Create a New Category for Environmental Justice (EJ) Communities.** Update the existing EJ (AB 1390) category to improve tracking outreach efforts in the impacted areas. This can help BAAQMD monitor outreach efforts to attract potential applicants from the nine (9) highest impacted areas within the Air District's jurisdiction.
- e. **Develop Quality Control Procedures for Data Entry.** Implement improved mandatory fields for important data points such as attendance, quantity, location, and description for all outreach events. This may result in more comprehensive data collection and improve the reliability of data analysis.

2. Project Lifecycle Tracking

- a. **Improve Data Management Practices.** Standardize data entry formats and ensure uniformity across all project categories. This will facilitate more effective data analysis and tracking, reducing the need for extensive data cleaning. For example:
 - i. MY 22 (FY 2019-2020) vs. FYE 2024
 - ii. School Bus vs. School Bus + Infrastructure
- b. **Implement Data Validation Checks.** Introduce data validation checks to minimize human errors, such as mis-typed dates and out-of-order sequences and improve the accuracy and reliability of the data.
- c. **Enhance Tracking Mechanisms.** Continue to optimize the use of Microsoft List or other task tracking software to streamline project tracking and data sharing among team members, improve real-time collaboration, and reduce complexities in data analysis.

3. Application Process and Project Monitoring

- a. **Actively Monitor Delegated Authority.** As a quality control measure over compliance with internal policies and to improve the integrity of the approval process, enforce the requirement for all delegated authority levels to approve applications, as per the grant agreement review process. The application was approved without all delegated authority levels approving the application for 6 or 13% of sampled projects.
- b. **Complete Pre-Inspection Forms.** To enhance the accuracy and completeness of inspection records, require that all required data fields on pre-inspection forms are completed and approved by BAAQMD management. Pre-inspection forms were not

signed by the 3rd party inspector and/or approved by BAAQMD personnel for 2 or 4% of sampled projects.

- c. **Adhere to Project Close-Out Procedures.** Continue to validate proper project closure and compliance with internal guidelines, verify that BAAQMD sends close-out letters to the grantee in accordance with BAAQMD's policies and procedures. Although BAAQMD indicated these projects have been completed, BAAQMD stated close out letters were not sent to the grantee for 3 or 6.5% of sampled projects.
- d. **Request More Reliable Documentation.** Request more concrete evidence of usage (e.g., photographs of odometer readings, equipment maintenance reports) for grant calculations in order to verify usage records are not falsified and that the proper grant amount is allocated to the grantee based on actual usage.
- e. **Create an Updated Applicant's Checklist.** Create an updated completeness checklist for the applicant to verify required documentation was provided in the application before submission.

4. Grant Funding Reconciliation (recommendation only for CMP and CAP)

- a. **Improve Data Reconciliation.** Regularly reconcile data between the Clean Air Reporting Log (CARL) database and liquidation reports to identify and address discrepancies.

Carl Moyer Memorial Air Quality Standards Attainment Program (CMP)

1. Environmental Justice (EJ) Target

- a. For CMP projects, BAAQMD should continue to strive to achieve a 50 percent EJ target on an annual basis. BAAQMD did meet this threshold during fiscal years 2015/16 through 2018/19. However, starting in fiscal year 2019/20, BAAQMD met the 50 percent EJ target on an annual basis. BAAQMD faced challenges meeting this goal due to a significant influx of new CAP funds (\$50 million in the first year) beginning in 2018, which diverted 1390 projects that would have otherwise been funded by CMP. Additionally, BAAQMD had to adjust internal processes to accommodate the significant increase in funding and requirements to fund projects in priority areas.

Community Air Protection (CAP) Incentives Program

- 1. **Develop Community-led Approach.** BAAQMD achieved the goals of the CAP Incentives program related to program expenditures, its commitment to prioritizing and funding zero-emission technologies and investing in projects within and benefitting AB 617 selected communities. The District should continue taking a community-led approach to its incentive program whereby it works to create new programs and to modify existing programs to be responsive to the community identified strategies developed by community members.
- 2. **Monitor Location for CAP Incentives Projects.** Require methods of tracking equipment over the project life including vehicle GPS location data, more frequent equipment GPS

checks, or more frequent audits to verify CAP Incentives funds are ultimately used to benefit the impacted communities and to maintain grantee accountability.

Goods Movement Emission Reduction Program (GMERP)

1. **Improve Data Reconciliation.** Data entered into the Goods Movement Online Database (GMOD¹³) does not always match BAAQMD's internal records. The Air District should verify on a quarterly basis that the information in GMOD is accurate, provide written comments on any discrepancies, and ensure users have the most up-to-date data for decision-making. Additionally, the Air District should reconcile data, such as ranking lists and cost-effectiveness, between GMOD and its internal records.

Clean Cars For All (CC4A)

1. Dealership Training Standardization

a. Include Section Covering Data Security in Training Curriculum:

- i. Include content on customer service, handling sensitive information, and troubleshooting common issues.

b. Certification Process:

- i. Implement a certification test at the end of the training session to ensure comprehension and retention of the program rules.
- ii. Require dealership staff to pass the certification before they can process CC4A transactions.

c. Ongoing Support and Resources:

- i. Provide continuous access to updated program materials and a dedicated hotline or email support for dealership staff to ask questions or to clarify program procedures.

d. Feedback Mechanism:

- i. Establish a feedback loop where dealership staff can provide insights and suggestions on the training process and program implementation, helping to refine and improve the training curriculum over time.

2. Build Relationship with Community-Based Organizations (CBOs)

a. Continue Identifying Potential CBO Partners:

¹³ GMOD is CARB's searchable database that provides information and progress on local agency projects, as well as individual equipment projects. GMOD helps to automate processes, which aligns with the GMERP 2015 Guidelines requirements, and to prepare reports.

- i. Continue to research and identify CBOs that align with the CC4A's mission and have a strong presence in the target communities.
- ii. Continue to evaluate the potential for partnerships based on past collaborations, community reach, and alignment of goals.

b. Develop Partnership Framework:

- i. Create a clear framework for collaboration that outlines the roles, expectations, and contributions of both the CC4A program and the CBOs.
- ii. Include mechanisms for funding, resource sharing, and joint marketing efforts.

c. Improve Regular Communication. Organize regular meetings and updates with CBO partners to discuss progress, share data, and adjust strategies as needed. Use these interactions to build trust and ensure that the partnerships are mutually beneficial.

d. Joint Outreach and Education Programs:

- i. Continue and improve outreach programs that leverage the CBOs' local knowledge and networks to educate the community about the CC4A program.
- ii. Continue and improve joint educational materials that are culturally and linguistically appropriate for the target audience.

3. Conduct Regular Data Access Reviews

a. Improve Formal Review Procedures:

- i. Develop and implement a more formal process for conducting regular access reviews of all personnel with access to sensitive program data.
- ii. Define the frequency of reviews, responsibilities, and the steps to be followed during each review.

b. Training and Awareness:

- i. Train relevant staff on the importance of access control and the procedures for reporting any discrepancies or unauthorized access.
- ii. Promote a culture of security awareness within the organization.

c. Improve Documentation and Compliance:

- i. Improve process to document all access reviews and actions taken as a result of the reviews to ensure compliance with regulatory requirements and internal policies.
- ii. Regularly update access control policies to reflect changes in the program or regulatory environment.

4. BAAQMD should include both the dealership name and its parent company name in the payment database to easily identify the correct entity was paid. The BAAQMD payment database includes the name of the local dealership which often differs from the

payee listed on payment information. Having this additional information in the payment database would allow for more effective tracking of payments in future Program Reviews.

Low Carbon Transportation (LCT) Incentives and Air Quality Improvement Program

1. Project Monitoring

- a. **Track Project Milestones.** Work more closely with the grantee to receive more frequent updates on project completion status as well as potential project risks (e.g., unexpected challenges, equipment delivery delays, and other issues). Notify CARB of project issues and make timely amendments to the grantee agreement as needed to promptly address necessary project modifications.
- b. **Enhance Timeliness of Project Close Out.** The original Goodwill project was expected to start in 2017 and be completed by the fall of 2019. There was an over 1-year delay. The trucks were deployed in 2018 but the invoice for the trucks was submitted in June 2020. The final project report was expected in the fall of 2020 but wasn't completed until February 2021. BAAQMD should continue to implement a process to regularly review deadlines within grant agreements including setting alerts for management and staff responsible for project close out procedures.

2. Project Costs and Funding

- a. **Create a Cost Model for Setting Project Funding Levels.** Build a cost model with a robust methodology for estimating the cost of each proposed vehicle / equipment item. Utilize cost-effectiveness limits to determine maximum project funding award amounts.¹⁴ Identify funding caps for projects which, if exceeded, are subject to the BAAQMD's Board approval. Crowe notes that BAAQMD has subsequently built a cost model as recommended.

3. Planning for Future Demonstration Projects and Leveraging Lessons Learned

- a. **Monitor Goodwill Project Outcomes.** Continue to analyze vehicle utilization, vehicle availability, vehicle range, operation and maintenance costs, and administrative costs over the operational period. Measure the cost-benefits of the zero-emission technologies funded and assess whether they meet program goals. Evaluate whether the vehicles remained operational over their intended useful life.
- b. Perform variance analysis of cost categories to identify those with material differences between estimated and actual costs. Identify root causes of cost overruns, if applicable, and potential areas for improvement (e.g., project management, better initial cost estimates). Crowe notes that BAAQMD has subsequently added process to monitor

¹⁴For example, using Carl Moyer Program's advanced technology cost-effectiveness limit of up to \$100,000 per weighted ton for the emissions reduction as a benchmark to establish cost-effectiveness limits for zero-emission equipment / vehicles.

project outcomes as recommended.

- c. **Research Best Practices.** Develop case studies for similar projects completed by comparable jurisdictions and air districts in California. Build a library of best practices around project management, communication with stakeholders (e.g., end-users, vehicle-technology provider / manufacturers, technical consultants, and program evaluators), and project monitoring.
- d. **Evolve Project Oversight Approach.** Refine documented administrative procedures and controls related to how BAAQMD monitors similar projects. Examples of techniques BAAQMD could evolve include more field visits and field evaluations, risk monitoring and mitigation, more extensive status reporting, enhanced communications with grantee, and contingency planning.
- e. **Evaluate Use of Payment Retainage Strategies.** Continue to implement retainage amounts where a percentage of the amount billed by a grantee for a particular task is withheld prior to completion (e.g., 5% or 10%). This can incentivize the grantee to meet schedule requirements, performance benchmarks, as well as to manage its cash flow effectively.

Volkswagen Environmental Mitigation Trust Program

Zero-emission Freight and Marine (ZEFM) Projects

1. Application Process and Project Monitoring

- a. **Require Timely Destruction of Baseline Equipment.** To validate proper project closure and compliance with contractual requirements, BAAQMD should formally notify recipients both at the application stage and post-award (e.g., via continuous email prompts) to reinforce the requirement to scrap the baseline equipment within 60 days of when the new project equipment is placed into operation. Consider penalties for failure to scrap the equipment within a specified period of time (e.g., 90 or 120 days).
- b. **Require Timely Submission of Project Implementation Report (PIR).** To validate proper project closure and compliance with contractual requirements, BAAQMD should formally notify recipients both at the application stage and post-award (e.g., via continuous email prompts) in an effort to obtain PIRs within 30 days of the date the new project equipment is placed into operation.
- c. **Develop Common File Structure Naming and Organization for Project Documents.** Continue to explore the potential for standardizing the naming convention and organization of all documents received from the applicant/recipient, and those added by staff, for each project. This will create consistency, allow users to determine if required information has been submitted, and ease the retrieval of information for future program reviews.

Light-duty Zero-Emission Vehicle Infrastructure (LDI) Projects

1. Project Readiness

- a. **Additional Project Readiness Requirements.** To limit the likelihood that a funded project is not completed within the contractually required timeline, or completed at all, require applicants to provide additional written information/documentation with the application that BAAQMD can use to validate/support that proposed projects are at a stage where construction can begin. This additional information could include supporting documentation regarding the status of project planning, design, permitting, and environmental approvals, as well as schedules/timelines for project completion. BAAQMD also can include a risk management plan requirement in the application to understand how an applicant will respond to project challenges and delays. BAAQMD should challenge potentially unrealistic project schedules at the application stage in light of its experience with similar projects (e.g., incorporating lessons learned). BAAQMD also should add the degree of project readiness as an application evaluation criterion. Crowe notes that this requirement is not included in BAAQMD's contract with CARB or the Beneficiary Mitigation Agreement but was included as a requirement in the project solicitation issued by BAAQMD.

2. Application Process and Project Monitoring

- a. **Enhance Reporting Requirements and Actively Monitor Funded Projects for Timely Performance.** BAAQMD should closely monitor ongoing projects and require supporting documentation to evaluate project progress and milestone completion. BAAQMD should incorporate more granular delivery milestones into the contract schedule (e.g., design complete, permit obtained, equipment acquisition, start of construction, utility connection). BAAQMD should require recipients to report more project-specific information in their monitoring reports, including percentage complete, date milestone completed, and project issues/risks. For projects with potential delivery challenges, consider increasing the frequency of reporting from bi-annually to quarterly. Crowe notes that additional milestones have been added since the inception of the program beyond what was required in the contract with CARB.

BAAQMD also can set up more frequent communications with its recipients to discuss project status/issues/challenges and, if necessary, how/when to promptly replace failing projects with other comparable ones. During these communications, BAAQMD can also impress upon the recipient, important contractual reporting and close-out requirements.

- b. **Require Timely Submission of Monitoring Reports from Recipients.** To validate proper project closure and compliance with internal guidelines, BAAQMD should document that it formally notifies recipients (e.g., via continual email prompts) in an effort to obtain timely submittals of the required March 1 and September 1 reports.
- c. **Develop Common File Structure Naming and Organization for Project Documents.** Continue to explore the potential for standardizing the naming convention and organization of all documents received from the applicant/recipient, and those added by staff, for each project and across other programs. This will create consistency, allow

users to determine if required information has been submitted, and ease the retrieval of information for future program reviews.

3. Project Award List Reconciliation

- a. **Improve Data Reconciliation.** Regularly reconcile project award data (referred to as the ranklist) between the CARB website and the BAAQMD's internal project award tracking reports to identify and address discrepancies.

4. Summary and Conclusions

Overview Summary

Carl Moyer Memorial Air Quality Standards Attainment Program (CMP)

BAAQMD achieved the emissions reduction objectives of the CMP program and effectively promoted the adoption of cleaner-than-required vehicles in the BAAQMD. Although outreach efforts have significantly declined, BAAQMD continued to satisfy their liquidation requirements by funding eligible projects while also meeting match fund requirements.

Community Air Protection (CAP) Incentives Program

BAAQMD achieved the emissions reduction objectives of the CAP program and effectively promoted the adoption of cleaner-than-required vehicles in the BAAQMD. Although outreach efforts have significantly declined, BAAQMD continued to satisfy their liquidation requirements by funding eligible projects while also meeting match fund requirements.

Funding Agricultural Replacement Measures for Emission Reductions (FARMER) Program

BAAQMD achieved the emissions reduction objectives of the FARMER program and effectively promoted the adoption of cleaner-than-required vehicles in the BAAQMD.

Goods Movement Emission Reduction Program (GMERP)

Based on the procedures we performed as described in Appendix C, BAAQMD operated the GMERP program in accordance with the requirements of the Grant Agreement Terms and Conditions, 2015 GMERP Guidelines, and BAAQMD policies and procedures during fiscal years 2015-16 through 2021-22.

BAAQMD achieved the emissions reduction objectives of GMERP and funded projects that achieved early or extra emission reductions not otherwise required by law or regulation and zero-emission infrastructure projects.

Lower Emission School Bus Program (LESBP)

Crowe did not evaluate any school bus projects funded through LESBP because of the small number LESBP projects funded during the program review period, and the program was no longer ongoing.

Clean Cars For All (CC4A)

BAAQMD achieved the emissions reduction objectives of the CC4A program and effectively promoted the adoption of clean vehicles in the Bay Area. The CC4A application process met

the requirements of guidelines and allowed for timely review of applicants. Automated communications and a structured queue system allowed for transparency throughout the process.

Low Carbon Transportation (LCT) Incentives and Air Quality Improvement Program

Based on the procedures we performed as described in Appendix C, BAAQMD operated the LCT program in accordance with the requirements of the Grant Agreement Terms and Conditions. BAAQMD is working towards achieving the emissions reduction objectives of the LCT program and effectively promoted the adoption of cleaner-than-required vehicles in the BAAQMD.

Volkswagen Environmental Mitigation Trust Program

Based on the procedures we performed as described in Appendix C, BAAQMD operated its VW programs in accordance with the requirements of the Mitigation Agreement Terms and Conditions, program implementation manuals, and BAAQMD policies and procedures during fiscal years 2019-20 through 2021-22.

BAAQMD is progressing toward achieving the NO_x emissions reduction objectives of the VW ZEFM and VW LDI program and has promoted the adoption of cleaner-than-required vehicles. BAAQMD continues to satisfy the VW Environmental Mitigation fund liquidation requirements.

Appendix A: Program Descriptions

Carl Moyer Memorial Air Quality Standards Attainment Program (CMP)

The Carl Moyer Program provides grant funding for cleaner-than-required engines, equipment, and other sources of air pollution. Since 1998, the program has provided over \$60 million in grant funding each year throughout California. In June 2022, Senate Bill (SB) 154 authorized \$130 million, making the total funding allocated to the program since its inception well over \$1 billion.

The Moyer Program funds a variety of clean air projects involving diverse vehicles and equipment. The main project types include:

1. **Replacement:** Replacing older vehicles or equipment that still have remaining useful life with newer, cleaner versions. This project type includes on-road trucks and buses, which can be replaced through fleet modernization contracts or voucher incentive programs (VIP), as well as off-road equipment.
2. **Repower:** Installing a newer, cleaner engine in an existing vehicle or equipment to replace a higher-polluting engine.
3. **Retrofit:** Adding emission control systems to in-use engines, vehicles, or equipment.
4. **Vehicle Retirement (Car Scrap):** Offering payments to owners of older, more polluting light-duty vehicles to incentivize early retirement of these vehicles, which still have remaining useful life.
5. **Infrastructure:** Funding the installation of fueling or energy infrastructure necessary for fueling or powering advanced clean vehicles and equipment. While infrastructure projects do not directly reduce emissions, they support the deployment of cleaner technologies.

Funding sources include tire replacement and vehicle registration (smog abatement) fees. Funded projects must achieve early, or extra emission reductions not otherwise required by law or regulation.

CARB develops statewide implementation guidelines, distributes funds to air districts, and conducts periodic oversight. Air districts choose which project types to fund from a variety of eligible categories, including:

- Emergency vehicles
- Lawn and garden equipment
- Light duty vehicles
- Locomotives
- Marine vessels

- On-road vehicles and equipment (e.g., trucks, buses, school buses, transit vehicles, electrical charging stations)
- Off-road vehicles and equipment
- Shore power
- Stationary agriculture pumps.

As required by the Carl Moyer Program, and similar to other large and medium-sized air districts in California, the BAAQMD contributes matching funds.

Environmental Justice (AB 1390) Communities

The BAAQMD is committed to meeting the AB 1390 mandate, which requires that at least 50% of state funds be used to reduce air contaminants in communities with significant exposure to pollution, often including minority and low-income populations. To achieve this, the BAAQMD employs the CalEnviroScreen tool to identify Disadvantaged Communities (DAC) and Low-Income Communities (LIC) and utilizes its Community Air Risk Evaluation (CARE) program to pinpoint areas with high pollution vulnerability. Projects are prioritized based on their operation within these "Priority Areas," with specific criteria for on-road and off-road vehicles, marine vessels, and infrastructure projects.

BAAQMD tracks funds allocated to AB 1390 projects and divides funding into two pots if necessary, prioritizing projects that benefit Priority Areas. This strategic approach not only fulfills the AB 1390 requirements but also aims to improve air quality and public health in the most affected communities. More recently, BAAQMD has implemented several strategic measures to ensure compliance with the AB 1390 target in future funding years:

1. **Policy Update (October 2021):** The Air District revised its criteria for identifying projects that benefit AB 1390 areas. This update expanded the scope to include not only District Community Air Risk Evaluation (CARE) areas, but also disadvantaged and low-income communities as identified by the CalEnviroScreen tool. This change aims to more accurately direct funding to communities with significant air pollution exposure.
2. **Prioritization Measures (December 2021):** During the fiscal year 2022 funding cycle, the Air District introduced a waitlist system to prioritize projects benefiting EJ communities, ensuring that at least 50% of funds are allocated accordingly. This approach is complemented by targeted outreach efforts to attract projects within priority areas.
3. **Competitive Solicitations (2023):** Transitioning from a first-come, first-served model, the Air District initiated a competitive solicitation process in fiscal year 2024. This strategic shift allows for more effective prioritization of funds to projects within AB 1390 areas, thereby facilitating the achievement of the 50% funding target.

Through these policy updates and strategic initiatives, the Air District indicates that it is committed to enhancing its support for EJ communities so that funding is directed towards

projects that deliver tangible benefits to those most affected by air pollution. These efforts reflect a proactive approach to meeting and sustaining the AB 1390 funding targets in the coming years.

Community Air Protection (CAP) Incentives Program

Over the last five years, following the passing of AB 617 (Chapter 136, Statutes of 2017) and the establishment of the Community Air Protection Program (CAPP), approximately \$1.2 billion has been provided to the CAP Incentives Program which focuses on facilitating emissions reductions through clean air projects in disadvantaged and low-income communities as well as communities selected by CARB to participate in CAPP and those communities that are consistently nominated for participation. Community engagement is key to project selection. While CARB develops statewide implementation guidelines, distributes funds to air districts and conducts oversight, the air districts must conduct a transparent and meaningful public process, including community outreach and public meetings, to guide funding decisions.

Funding for CAP Incentives primarily comes from the Greenhouse Gas Reduction Fund (GGRF), though some General Fund money has likewise been appropriated in the past. Air districts must follow the *Community Air Protection Incentives Guidelines* (CAP Incentives Guidelines), the *Funding Guidelines for California Climate Investments*, and for Moyer Program projects implemented using CAP Incentives, those projects must also follow the relevant source category chapter in the CMP Guidelines. CAP Incentives funds emission reducing mobile source vehicle and equipment projects, infrastructure projects, stationary source projects and other community-identified projects, with a priority on zero-emission projects wherever feasible.

The Legislature directed that Carl Moyer Program and Proposition 1B Program projects are eligible under the CAP Incentives Program.

The Funding Agricultural Replacement Measures for Emission Reductions (FARMER) Program

The FARMER Program provides funding through local air districts for agricultural harvesting equipment, heavy-duty trucks, agricultural pump engines, tractors, and other equipment used in agricultural operations. In September 2017, CARB received \$135 million to reduce emissions from the agricultural sector from AB 134 (Committee on Budget, Chapter 254, and Statutes of 2017) and AB 109 (Ting, Chapter 249, Statutes of 2017). Since then, the program received appropriations from the California Legislature in each subsequent fiscal year except FY 2020-21. Funding sources for the program have included the GGRF, the Air Quality Improvement Fund, the California Tire Recycling Management Fund, and the Alternative and Renewable Fuel and Vehicle Technology Fund.

CARB staff worked with local air districts and stakeholders through a public process to develop the FARMER Program Guidelines, which set the minimum requirements for the program and require that funded projects meet intended emission reductions.

Goods Movement Emission Reduction Program (GMERP)

Approved by voters in 2006, Proposition 1B allocated \$1 billion in bond funding to CARB to reduce emissions and health risks in communities heavily impacted by goods movement. The Goods Movement Emission Reduction Program (GMERP), established under Proposition 1B, addresses the significant air pollution from diesel engines used in freight transport across California. Health and Safety Code section 39625 et seq. establishes the Program and directs CARB to maximize the emission reduction benefits while achieving the earliest possible health risk reduction in communities heavily impacted by goods movement. Emissions from sources like trucks, locomotives, and ships pose severe health risks, particularly in regions such as the Los Angeles / Inland Empire, Central Valley, Bay Area, and San Diego / Border, where freight activities are concentrated.

Since its inception, the GMERP program has undergone several updates to its guidelines, reflecting advances in technology, changes in equipment costs, and evolving regulatory landscapes. These updates have increasingly focused on zero and near-zero emission technologies, with the latest guidelines proposing higher funding levels for such technologies and introducing new project categories.

The program's funding mechanism involves CARB awarding grants to local agencies, such as air districts and ports, which then provide financial incentives to equipment owners to adopt cleaner technologies. The competitive nature of the program is designed such that projects offering the greatest emission reductions per state dollar are prioritized. CARB's guidelines, developed in consultation with various stakeholders, aim to fund projects that are cost-effective, transparent, and accountable, while leveraging other funding sources. As required by the GMERP program, and similar to other large and medium-sized air districts in California, the BAAQMD contributes matching funds.

Projects funded by GMERP include:

- Upgrading diesel engines in trucks, locomotives, ships, harbor craft and cargo handling to cleaner technologies.
- Implementing zero and near-zero emission technologies for freight equipment.
- Installing transportation refrigeration units, zero emission transportation refrigeration units and associated charging infrastructure to reduce emissions from refrigerated transport.
- Developing infrastructure projects to support cleaner freight movement, such as electrification at ports and railyards.

The Lower Emission School Bus Program (LESBP)

The LESBP funds the clean-up school buses that serve California's public schools to reduce the exposure of school children to diesel exhaust. LESBP has been funded by bonds authorized by Proposition 1B, by local AB 923 and AB 2766 funds, and by grants of federal Diesel Emissions Reduction Act (DERA) funds. Previously, CARB distributed State Proposition

1B funds and federal DERA funds to the air districts, however, all Proposition 1B funds were expended by June 2014. Since that time LESBP has predominately been funded at the discretion of local air districts through local funds such as AB 923 funds and AB 2766 funds. The program provides grants to purchase new school buses that replace older, high-emitting buses or to retrofit existing diesel bus engines with CARB-verified diesel emission control systems. CARB develops statewide implementation guidelines and provides oversight of program implementation. Air districts select and fund school bus projects with public school districts and transportation providers in their areas. LESBP does not require the air district to contribute match funds.

EFMP and CC4A

CARB partners with implementing air districts to execute the CC4A, formerly EFMP Plus-Up project, programs in their air basin. The voluntary car scrap programs focus on promoting advanced technology for low-income California residents, with each program operating under its own specific statutes and regulations. Incentive amounts to participants are determined by the participant's household income level, whether the applicant lives in or near a disadvantaged community, and choice of replacement option, with up to \$9,500 toward the purchase of an advanced technology replacement vehicle (e.g., hybrid, plug-in hybrid, or zero-emission) or an alternative mobility option (e.g., transit passes, carsharing, or other options). In addition to these incentives, eligible participants may also receive a \$2,500 incentive towards a charge card or a home charger. AB 630 required CARB to adopt guidelines by January 1, 2019, establishing measurable goals for replacement of light-duty vehicles, and then post information on the performance of the CC4A Program annually.

Low Carbon Transportation (LCT) Incentives and Air Quality Improvement Program

The Low Carbon Transportation (LCT) program is a key CARB initiative aimed at reducing emissions from the transportation sector, which is a significant source of greenhouse gases and air pollutants in California. Supported by Cap-and-Trade auction proceeds, the LCT program provides incentives to accelerate the deployment of advanced transportation technologies and clean vehicles in both the light-duty and heavy-duty sectors.

The LCT program is designed with several objectives to address environmental and public health challenges. One of its primary goals is to reduce greenhouse gas emissions significantly by promoting the adoption of low-carbon and zero-emission vehicles. In addition to targeting greenhouse gases, the program also aims to decrease criteria pollutants and toxic air contaminants, thereby improving air quality and enhancing public health. To achieve these objectives, the program supports the deployment of advanced transportation technologies by funding projects that demonstrate and implement innovative solutions in the transportation sector.

Projects eligible for funding include:

- Zero-Emission Vehicles (ZEVs): Incentives for the purchase and use of battery electric vehicles (BEVs) and hydrogen fuel cell vehicles (FCEVs).
- Infrastructure Development: Funding for electric vehicle charging stations and hydrogen refueling infrastructure to support the growing number of ZEVs.
- Advanced Technology Demonstrations: Support for projects that showcase innovative transportation technologies, helping to accelerate their commercialization.
- Heavy-Duty Vehicle Upgrades: Incentives for transitioning heavy-duty vehicles, such as trucks and buses, to cleaner technologies.
- Alternative Fuel Vehicles: Support for vehicles using low-carbon alternative fuels, contributing to reduced petroleum dependency.

The LCT program is an integral part of California's comprehensive approach to transforming the transportation sector, aligning with other state initiatives to achieve ambitious climate and air quality goals. By providing financial incentives and fostering technological innovation, the program seeks to create a sustainable and resilient transportation system that benefits all Californians.

Volkswagen Environmental Mitigation Trust Program

Volkswagen Zero Emission Freight and Marine (ZEFM) Program

Under contract to CARB, BAAQMD serves as administrator (“VW Administrator”) of the \$70 million in Trust funds allocated to the Zero-Emission Freight and Marine (ZEFM) program category. The ZEFM Program is available statewide and funds projects that accomplish one or more of the following:

- Scrap and replace heavy-lift forklifts, port cargo handling equipment, or airport ground support equipment, with new, commercially available, zero-emission technologies, or
- Repower marine engine in ferry, tugboats and towboats with new, commercially available, zero-emission technologies, or
- Install shore power systems for oceangoing vessels at port terminals.

The four (4) eligible equipment categories include:

- Port cargo handling equipment including heavy-lift forklifts;
- Airport ground support equipment;
- Marine vessel repower (ferries, tugboats, and towboats);
- Shore power at berths for oceangoing vessels.

By funding cost-effective, zero-emission projects and awarding at least 75 percent of funding to projects that reduce emissions in California’s disadvantaged and low-income communities,

the ZEFM program seeks to maximize NOx reductions and benefits to populations most impacted by poor air quality. It also seeks to drive widescale adoption of zero-emission off-road equipment that has typically relied on conventional diesel technologies.

The Mitigation Agreement between CARB and BAAQMD was signed in February 2019. The performance period for this agreement extends through May 24, 2028. As Project Administrator, BAAQMD is required to fulfill the elements in the Volkswagen Environmental Mitigation Trust Fund Implementation Manual for the Zero Emission Freight and Marine Program.

There have been four (4) statewide solicitations for the ZEFM program as follows:

1. June 18 - August 31, 2020; Competitive
2. May 25, 2021 - March 22, 2022; Non-competitive¹⁵
3. September 29, 2022 – July 20, 2023; Non-competitive (out of scope of this program review)
4. August 22, 2023 – February 28, 2024; Non-competitive (out of scope of this program review).

Volkswagen Light-Duty Electric Vehicle Infrastructure (LDI) Program

Funding for this category is intended to fund infrastructure for light-duty zero-emission vehicles (ZEV), with a target of \$5 million for electric vehicle charging stations and \$5 million for hydrogen refueling stations. This allocation provides funding to help purchase, install, operate, and maintain new charging or refueling infrastructure for zero-emission vehicles. Applicants were encouraged to combine this funding with other available funding sources at the state, federal, and local level. These funds are administered statewide using a competitive process and are intended to support projects that meet the infrastructure needs of a growing ZEV population. At least 35% of this allocation is expected to benefit low-income or disadvantaged communities.

Electric Vehicle Charging Infrastructure

The Mitigation Agreement between CARB and BAAQMD was signed in February 2019. The performance period for this agreement extends through May 24, 2028. As Project Administrator, BAAQMD is required to fulfill the elements in the VW Light Duty Zero-Emission Vehicle Infrastructure Implementation Manual.

BAAQMD released a competitive statewide solicitation for \$5 million in funding for electric vehicle charging stations on May 11, 2021. The application period closed August 18, 2021. BAAQMD received applications for 89 stations, including 460 chargers.

¹⁵ This solicitation was opened on May 25, 2021 with a close date of September 22, 2021. Due to a low participation rate, the BAAQMD extended the close date to March 22, 2022.

Hydrogen Refueling Infrastructure

BAAQMD signed an agreement with CARB on February 20, 2019. BAAQMD signed an agreement with the California Energy Commission (CEC) on May 29, 2020 which provides \$5 million in VW Mitigation Trust funding for hydrogen refueling infrastructure. BAAQMD funding supplements other CEC funds.¹⁶

The CEC released their solicitation on December 19, 2019 targeting 100 new publicly available hydrogen refueling stations; this solicitation was open for 155 days. The application period closed May 22, 2020. BAAQMD received 3 applications for 30 stations.

¹⁶ The \$5 million in funding for hydrogen refueling stations is augmenting the \$45.7 million available through the California Energy Commission's grant funding opportunity, released in January 2020.

Appendix B: Program Funding Levels, Number of Projects, and Sample of Projects Selected

Carl Moyer Memorial Air Quality Standards Attainment Program (CMP)

CMP Program Funding Levels

Fiscal Year	Grant Agreement Number	Project Funds	Administration Funds	Total Grant Award	Required District Match
2016	G15-M003	\$6,817,150.00	\$454,477.00	\$7,271,627.00	\$1,090,744.00
2017	G16-M002	6,874,030.00	458,269.00	7,332,299.00	1,099,845.00
2018	G17-M003	7,309,435.00	487,296.00	7,796,731.00	1,169,510.00
2018	G17-M033	1,047,743.00	69,849.00	1,117,592.00	N/A
2019	G18-MO03	8,153,662.00	543,578.00	8,697,240.00	1,304,586.00
2019	G18-MO33	1,213,125.97	80,875.06	1,294,001.03	N/A
2020	G19-MO02	9,946,715.00	663,114.00	10,609,829.00	1,591,474.00
2020	G19-MO-41-02	1,389,865.00	92,658.00	1,482,523.00	N/A
2021	G20-MO-03	9,358,173.00	623,878.00	9,982,051.00	1,497,308.00
2021	G20-MSR-02	1,359,150.00	90,610.00	1,449,760.00	N/A
2022	G21-MO-02	26,704,063.00	1,780,271.00	28,484,334.00	4,272,650.00
Total		\$80,173,111.97	\$5,344,875.06	\$85,517,987.03	\$12,026,117.00

CMP Funding Amount per AB 1390 to Benefit Environmental Justice (EJ) Communities – Annual Basis as of May 14, 2024

Funding Source	Fiscal Year	EJ Project Liquidated	All Projects Liquidated	Benefitting EJ (%)	Target EJ (%)
CMP	2016	\$2,738,472.00	\$6,880,211.95	40%	50%
CMP	2017	1,941,860.71	7,097,223.98	27%	50%
CMP	2018	1,490,500.00	8,686,277.87	17%	50%
CMP	2019	2,135,589.97	9,269,663.74	23%	50%
CMP	2020	6,410,043.68	12,480,908.58	51%	50%
CMP	2021	7,576,116.72	12,021,315.02	63%	50%
CMP	2022	\$1,296,169.00	\$1,930,769.00	67%	50%

CMP Funding Amount per AB 1390 to Benefit Environmental Justice (EJ) Communities – Cumulative Basis as of May 14, 2024

Funding Source	Fiscal Year ¹⁷	EJ Project Liquidated	All Projects Liquidated	Benefitting AB 1390 (%)	Target AB 1390 (%)
CMP	2017	\$8,306,422.68	\$31,933,377.54	26%	50%
CMP	2018	11,977,994.36	37,534,074.17	32%	50%
CMP	2019	17,612,250.37	42,458,165.21	41%	50%
CMP	2020	\$17,417,919.37	\$35,702,656.34	49%	50%

¹⁷ Cumulative funding amount for fiscal year 2016 is not provided because it would include funding for fiscal year 2015 which is outside of the examination scope. Additionally, fiscal years 2021 and 2022 are missing because Moyer Year 25 through 26 projects have not been executed / liquidated.

**Number of Projects and Liquidated Amounts
 FY 2015/16 – 2021/22**

Program Name	Number of Projects	Grant Amount
Carl Moyer Program (CMP)	465	\$87,399,448.89

**Sample of Projects Selected for Review
 FY 2015/16 – 2021/22**

Program	Number of Projects Selected for Review	Engines	Grant Amount
Carl Moyer Program (CMP)	24	82	\$4,944,212.34

Community Air Protection (CAP) Incentives Program

CAP Incentives Program Funding Levels

Fiscal Year	Grant Agreement Number	Project Funds	Administration Funds	Total Grant Award
2018	G17-MCAP-03 Amendment 2	\$46,875,000.00	\$3,125,000.00	\$50,000,000.00
2019	G18-MCAP-01-1	37,312,500.00	2,487,500.00	39,800,000.00
2020	G19-MCAP-01-1	28,491,218.85	1,899,414.59	30,390,633.44
2021	N/A	N/A	N/A	N/A
2022	G21-MCAP-02	35,438,365.79	2,362,557.72	37,800,923.51
Total		\$148,117,084.64	\$9,874,472.31	\$157,991,556.95

**Number of Projects and Liquidated Amounts
 FY 2015/16 – 2021/22**

Program Name	Number of Projects	Grant Amount
Community Air Protection (CAP) Incentives	182	\$87,343,619.11

**Sample of Projects Selected for Review
 FY 2015/16 – 2021/22**

Program	Number of Projects Selected for Review	Engines	Grant Amount
Community Air Protection (CAP) Incentives	18	193	\$30,372,349.26

The Funding Agricultural Replacement Measures for Emission Reductions (FARMER) Program

FARMER Program Funding Levels

Fiscal Year	Grant Agreement Number	Project Funding	Project Implementation Funding	Total Grant Amount
2017-18	G17-AGIP-02	\$1,866,375.00	\$124,425.00	\$1,990,800.00
2018-19	G18-AGIP--07	1,802,522.00	120,168.00	1,922,690.00
2019-20	G19-AGIP-02	748,944.00	59,218.00	808,162.00
2021-22	G21-AGIP-01	3,522,093.00	234,807.00	3,756,900.00
2022-23	G22-AGIP-01	2,484,281.00	165,619.00	2,649,900.00
2023-24	G23-AGIP-01	1,242,187.00	82,813.00	1,325,000.00
Total		\$11,666,402.00	\$787,050.00	\$12,453,452.00

**Number of Projects and Liquidated Amounts
 FY 2017/18 – 2021/22**

Program Name	Number of Projects	Grant Amount
FARMER	69	7,794,193.54

**Sample of Projects Selected for Review
 FY 2017/18 – 2021/22**

Program	Number of Projects Selected for Review	Engines	Grant Amount
FARMER	4	12	883,058.78

Goods Movement Emission Reduction Program (GMERP)

GMERP Program Funding Levels

Grant Number	Project Funds	Administrative Funds	Total
G14GMBL1	\$12,623,802.00	\$378,714.00	\$13,002,516.00
G14GMBR1	\$48,000.00	\$2,400.00	\$50,400.00
G14GMBT1	\$19,294,999.89	\$964,749.58	\$20,259,749.47
G14GMBS1	\$4,412,165.00	\$132,365.00	\$4,544,530.00
Total	\$36,378,966.89	\$1,478,228.58	\$37,857,195.47

GMERP Number of Projects and Grant Amounts¹⁸

Total Number of Funded Projects	Total Grant Amount of Funded Projects	Number of Contracts Selected for Program Review	Number of Projects Selected for Program Review	Grant Amount for Selected Projects for Program Review
75	\$17,860,280	10	44	\$13,028,683

GMERP Sampled Grantees for Program Review

No.	Contract Number	No. Projects per Contracts Reviewed	Grantee	Project Type
1	15GM0028	1	FREIGHT LINE EXPRESS TRUCKING	On-Road
2	15GM0031	2	SIDHU, CHAMKAUR SINGH	On-Road
3	16GM0010	1	D & N TRUCKING INC.	On-Road
4	16GM0035	1	DURKEE DRAYAGE COMPANY, INC.	On-Road
5	17GM0023	14	SANDMAN, INC	On-Road
6	17GM0024	10	AJR TRUCKING, INC.	On-Road
7	17GMCH05	6	FONTANA WOOD TREATING, INC	Cargo Handling
8	20GMCH09	3	WM BOLTHOUSE FARMS INC	Cargo Handling
9	15GML1	4	UNION PACIFIC RAILROAD CORPORA	Locomotives

¹⁸ Totals represent Year 5 funding for GMERP as of the April 15, 2022 semi-annual report. Year 1-4 funding and grant awards were completed prior to the program review period.

No.	Contract Number	No. Projects per Contracts Reviewed	Grantee	Project Type
10	17GML1	2	CALIFORNIA NORTHERN RAILROAD C	Locomotives

The Lower Emission School Bus Program (LESBP)

Crowe did not select any LESBP projects to review because the BAAQMD funded a significantly smaller number of LESBP projects during the review period compared to other programs. Additionally, after 2017, the Air District no longer operated a LESBP program.

Clean Cars for All (CC4A)

Grant Funds by Year within Program Review Period

Grant	Allocated Funding
G16-LCTI-04-2	\$5,000,000
G17-VW-01	\$5,000,000
G18-PLUS-03	\$4,000,000
G20-PLUS-03-01	\$3,000,000
G21-CC4A-03	\$8,333,333
Total	\$25,333,333

Projects Funded by Year within Program Review Period

Year	Number of Projects Funded	Grant Amount to Applicants	Number of Projects Selected for Review
2019	161	\$1,249,540.24	6
2020	1,022	8,826,207.48	3
2021	265	2,109,831.00	5

Year	Number of Projects Funded	Grant Amount to Applicants	Number of Projects Selected for Review
2022	870	7,023,202.00	4
Total	2,318	\$19,208,780.70	18

Low Carbon Transportation (LCT) Incentives and Air Quality Improvement Program

LCT Number of Projects and Grant Amounts

Total Number of Funded Projects	Total Grant Amount of Funded Projects	Number of Projects Sampled for Program Review	Grant Amount for Sampled Projects for Program Review
1	\$2,738,557.00	1	\$2,738,557.00

Volkswagen Environmental Mitigation Trust Program

**Volkswagen Mitigation Trust Fund
 Zero Emission Freight and Marine and Light-Duty Electric Vehicle Infrastructure Programs
 Total Grant Budget**

Program	Project Funds	Administration Funds	Total Project Budget
Zero Emission Freight and Marine (ZEFM)	\$70,000,000	\$7,000,000	\$77,000,000
Light-Duty Zero-Emission Vehicle Infrastructure (LDI) Program	\$10,000,000	\$1,000,000	\$11,000,000
Total	\$80,000,000	\$8,000,000	\$88,000,000

**Volkswagen Mitigation Trust Fund
 Zero Emission Freight and Marine and Light-Duty Zero-Emission Vehicle Infrastructure
 Programs**

Number of Projects and Grant Funding Amounts Awarded

Program Name	Number of Projects Awarded	Grant Amount Awarded to Recipients
Zero Emission Freight and Marine (ZEFM) Program	91	\$23,597,790 ¹⁹
Light-Duty Zero-Emission Vehicle Infrastructure (LDI) Program		
Electric	53	\$5,000,000 ²⁰
Hydrogen Refueling Infrastructure	1	\$5,000,000 ²¹
Total	145	\$33,597,790

**Volkswagen Mitigation Trust Fund
 Zero Emission Freight and Marine and Light-Duty Zero-Emission Vehicle Infrastructure
 Programs**

Sample of Projects Selected for Program Review

Project Category	Sampled Projects	Grant Amount
Zero Emission Freight and Marine (ZEFM)	5	\$5,184,500
Light-Duty Zero-Emission Vehicle Infrastructure (LDI) Program		
<i>Electric</i>		

¹⁹ Source: [BAAQMD-ZEFM award list dated October 1, 2024](#)

²⁰ Source: VWLDI EV Rank list, updated May 10, 2024.

²¹ Awarded amount was included in as part of a broader California Energy Commission competitive grant solicitation for Hydrogen Refueling Infrastructure issued in May 2020. That solicitation identified \$115.7M in total available grant funds, including \$5M in Volkswagen Mitigation Trust funds.

Project Category	Sampled Projects	Grant Amount
EVgo	5	\$1,710,000
RenewAge Energy Solutions	20	\$900,000
Subtotal LDI	25	\$2,610,000
<i>Hydrogen Refueling Infrastructure</i>		
First Element Fuel, Inc. via the California Energy Commission Hydrogen solicitation	1	\$5,000,000
Total	31	\$12,794,500

**Volkswagen Mitigation Trust Fund
 Zero Emission Freight and Marine (ZEFM) Program
 Sample of Projects Selected for Program Review, by Vendor**

No.	Project Number	Grant Recipient	Project Type
1	VWFM-20-0075	Delta Airlines Inc.	Airport ground support equipment (GSE)
2	VWFM-20-0064	ComAv LLC	Forklift
3	VWFM-20-0098	SA Recycling, LLC	Forklift
4	VWFM-22-0514	Angel Island Tiburon Ferry Inc.	Ferry
5	VWFM-21-0162	San Diego Unified Port District	Shorepower

**Volkswagen Mitigation Trust Fund
 Light-Duty Electric Vehicle Infrastructure Program
 Sample of Projects Selected for Program Review, by Vendor**

EVgo Charging Station Sites Sampled:

No.	Charging Site ID	Charging Site Address
1	LDV-21-0377_S01	10950 International Blvd, Oakland, CA 94603
2	LDV-21-0377_S02	661 W Redondo Beach Blvd, Gardena, CA 90247
3	LDV-21-0377_S03	3029 S Robertson Blvd, Los Angeles, CA 90034
4	LDV-21-0377_S04	6005-6101 Rosemead Blvd, Pico Rivera, CA 90660
5	LDV-21-0377_S05	3460 Marron Rd, Oceanside, CA 92056

RenewAge Charging Station Sites Sampled:

No.	Charging Site ID	Charging Site Address
1	LDV-21-0135_S01	1124 J Street, Modesto, CA 95354
2	LDV-21-0135_S02	805 North H Street, Lompoc, CA 93436-4158
3	LDV-21-0135_S03	655 Main Street, Watsonville, CA 95076
4	LDV-21-0135_S04	39305 Paseo Padre Parkway, Fremont, CA 94538
5	LDV-21-0135_S05	2333 Shattuck Avenue, Berkeley, CA 94704-1591
6	LDV-21-0135_S06	790 1st Street, Gilroy, CA 95020
7	LDV-21-0135_S07	14360 Roscoe Boulevard, Panorama City, CA 91412
8	LDV-21-0135_S08	22 East Eighth Street, National City, CA 91950
9	LDV-21-0135_S09	850 N Wilcox Avenue, Montebello, CA 90640
10	LDV-21-0135_S10	18616 S Gridley Road, Artesia, CA 90701

No.	Charging Site ID	Charging Site Address
11	LDV-21-0135_S11	401 E. Valley Boulevard, San Gabriel, CA 91776
12	LDV-21-0135_S12	16141 Beach Boulevard, Huntington Beach, CA 92647
13	LDV-21-0135_S13	23511 Paseo De Valencia, Laguna Hills, CA 92653
14	LDV-21-0135_S14	601 Bay Avenue, Capitola, CA 95010
15	LDV-21-0135_S15	35 S El Dorado Street, Stockton, CA 95202
16	LDV-21-0135_S16	6239 Pacific Avenue, Stockton, CA 95207
17	LDV-21-0135_S17	5748 Sunrise Boulevard, Citrus Heights, CA 95610
18	LDV-21-0135_S18	1049 7th Street, Wasco, CA 93280
19	LDV-21-0135_S19	874 Lincoln Way, Auburn, CA 95603
20	LDV-21-0135_S20	800 East Florida Avenue, Hemet CA 92543

**Volkswagen Mitigation Trust Fund
 Hydrogen Refueling Infrastructure**

Below are the five (5) VW Mitigation Trust funded hydrogen refueling station locations awarded by the CEC. The recipient is FirstElement Fuel, Inc., and all proposed stations are located in disadvantaged or low-income communities.

Hydrogen Refueling Stations (Funded with VW Mitigation Trust Funds):

No.	Applicant	Station Address	Station City	Funding Amount
1	FirstElement	510 East Santa Clara Street	San Jose	\$1M
2	FirstElement	1930 South Waterman Avenue	San Bernardino	\$1M
3	FirstElement	3160 Carlson Boulevard	El Cerrito	\$1M
4	FirstElement	6392 Beach Boulevard	Buena Park	\$1M
5	FirstElement	4280 Foothill Boulevard ²²	Oakland	\$1M

We assessed the project as a whole for the Hydrogen Refueling program. The BAAQMD provided a relatively limited oversight role on this project, approving maximum VW Mitigation Trust funding levels per site, receiving reports from the CEC, processing invoices, and reporting progress to CARB in monthly coordination meetings.

²² Note that an originally awarded station, proposed at 2160 South Euclid Avenue in Ontario, CA, was replaced with a station, proposed at 4280 Foothill Boulevard in Oakland, CA. This change was made in January of 2022 because the Ontario station was placed on hold by the site owner and the Oakland station was progressing faster than anticipated, and its construction timeframe aligned with the remaining stations.

Appendix C: Program Review Procedures

Crowe conducted the following tasks and subtasks to complete the program review of the Bay Area Air Quality Management District's program implementation. Program review tasks and subtasks included the following:

1. Obtain and evaluate applicable policies, incentive program guidelines and agreements, the BMP, state administrative requirements and general accounting procedures including:
 - a. BAAQMD and CARB Grant agreement terms and conditions
 - b. Program Guidelines (developed by CARB)
 - c. BAAQMD and CARB mitigation agreement terms and conditions
 - d. Program Guidelines in the form of the Beneficiary Mitigation Plan or BMP (developed by CARB)
 - e. Website information identifying resources, workshops, funding sources.
2. Summarize results of the document evaluation as a basis for developing and refining the Program Review Plan.
3. Meet with CARB personnel to gain a high-level understanding of guiding laws, regulations, rules, policies, grant agreements and guidelines.
4. Prepare and submit an initial data request, including:
 - a. Policies and procedures related to each incentive program
 - b. Organizational charts
 - c. Documentation related to how the grantee awards funding, including:
 - i. Guidelines prepared by grantees
 - ii. Application processes including application intake, review, approval and pre- and post-inspections
 - iii. Outreach materials (e.g., presentations, mailers)
 - iv. Fact sheets
 - v. Frequently asked questions (FAQs)
 - vi. Specific grantee requirements
 - d. Applicant listings for the applicable assessment period (i.e., project populations)
 - e. Applicable laws and regulations governing incentive programs the grantee manages
 - f. Financial information related to grant funding received and grants awarded.
5. Schedule and conduct virtual or on-site visit to interview grantee management, staff, and related program personnel to evaluate responses to data requests.

6. Conduct process walk throughs with grantee subject matter experts (SMEs) to understand the following:
 - a. Program goals and objectives
 - b. Program performance
 - c. Acceptance of funds from CARB
 - d. Solicitation of applications
 - e. Outreach efforts
 - f. Environmental justice policies and their implementation
 - g. Application evaluation process
 - h. Reporting to CARB
 - i. Administrative expenses
 - j. Data security.
7. Develop sample of applicants to conduct analyses of and request applicant file documentation (in electronic format where possible)
 - a. Applications
 - b. Results of application review
 - c. Sales contract
 - d. Proof of registration
 - e. Proof of ownership
 - f. Proof of income if selected for income verification (e.g., tax return, W-2).
8. Conduct follow up correspondence with grantee to validate project file contents, request explanations and/or obtain additional data and information.
9. Obtain financial records to support how the grantee spent funds. Note, the California Department of Finance was concurrently conducting a financial audit of the BAAQMD program, therefore Crowe reviewed financial information but did not conduct testing of financial data.
10. Develop findings and recommendations. Findings and recommendations may include, but not be limited to the following, as applicable:
 - a. Opportunities to increase efficiency and effectiveness, including a listing of the program's strengths and opportunities for improvement
 - b. Determination of whether grantees and their funding recipients are following appropriate agreements, guidelines, and fiscal and accounting standards
 - c. Determination of whether grantee incentive programs are demonstrating:
 - i. Consistency in program implementation; including any variations from program standards
 - ii. Achievement of program goals including key performance indicators
 - iii. Transparency and public accountability

- d. Assessment of training programs and metrics on training outcomes
- e. Recommendations for process improvement
- f. Assessment of grantees' key internal controls, including instances of inefficient or ineffective operational policies, procedures, or practices
- g. Identify exemplary practices that could be implemented by grantees and administrators of these incentive programs
- h. Identify areas that may strengthen working relationships between State and local entities.

Appendix D: References

Carl Moyer Memorial Air Quality Standards Attainment Program (CMP)

1. Carl Moyer Program 2011 Guidelines (December 31, 2014), California Air Resources Board
2. Carl Moyer Program 2017 Guidelines Volume I and Volume II (April 27, 2017), California Air Resources Board
3. Carl Moyer Program 2017 Guidelines Chapter 7 Marine Update (September 20, 2023), California Air Resources Board
4. Carl Moyer Program 2017 Guidelines Light Duty VAVR Revised Tables (March 16, 2021), California Air Resources Board
5. Carl Moyer Program 2017 Guidelines Appendix C Update (November 17, 2022), California Air Resources Board
6. Carl Moyer Program 2017 Guidelines Chapter 4 On Road Update (April 7, 2022), California Air Resources Board
7. Carl Moyer Program 2017 Guidelines Chapter 9 Lawn Garden Update (March 6, 2023), California Air Resources Board
8. Carl Moyer Program 2017 Guidelines Chapter 10 Infrastructure Update (June 20, 2017; January 18, 2023), California Air Resources Board
9. Carl Moyer Program Sample Calculations On Road Update (February 24, 2022), California Air Resources Board
10. Carl Moyer Program Sample Calculations (September 19, 2018), California Air Resources Board
11. Voucher Incentive Program 2016 Guidelines (December 11, 2015), California Air Resources Board
12. Voucher Incentive Program 2017 Guidelines (April 27, 2017), California Air Resources Board
13. Voucher Incentive Program 2018 Guidelines (December 28, 2017), California Air Resources Board
14. Voucher Incentive Program 2019 Guidelines (April 3, 2019), California Air Resources Board
15. Voucher Incentive Program 2020 Guidelines (April 3, 2020), California Air Resources Board
16. Voucher Incentive Program 2021 Guidelines (February 23, 2021), California Air Resources Board
17. Voucher Incentive Program 2022 Guidelines (February 28, 2022), California Air Resources Board
18. Voucher Incentive Program 2023 Guidelines (January 18, 2023), California Air Resources Board
19. Carl Moyer Program Policies and Procedures Funding Year 18, Bay Area Quality Management District

20. Carl Moyer Program Policies and Procedures Funding Year 18 Appendices, Bay Area Quality Management District
21. Carl Moyer Program Policies and Procedures Funding Year 19, Bay Area Quality Management District
22. Carl Moyer Program Policies and Procedures Funding Year 19 Appendices, Bay Area Quality Management District
23. Carl Moyer Program Policies and Procedures Funding Year 20, Bay Area Quality Management District
24. Carl Moyer Program Policies and Procedures Funding Year 20 Appendices, Bay Area Quality Management District²³
25. Carl Moyer Program Policies and Procedures Funding Year 21, Bay Area Quality Management District
26. Carl Moyer Program Policies and Procedures Funding Year 21 Appendices, Bay Area Quality Management District
27. Carl Moyer Program Policies and Procedures Funding Year 21, Bay Area Quality Management District
28. Carl Moyer Program Policies and Procedures Funding Year 21 Appendices, Bay Area Quality Management District
29. Carl Moyer Program Policies and Procedures Funding Year 22, Bay Area Quality Management District
30. Carl Moyer Program Policies and Procedures Funding Year 22 Appendices, Bay Area Quality Management District
31. Carl Moyer Program Policies and Procedures Funding Version 22.01 (October 3, 2022), Bay Area Quality Management District
32. Carl Moyer Program Policies and Procedures Funding Version 22.01 Appendices (October 20, 2022), Bay Area Quality Management District
33. Carl Moyer Program Policies and Procedures Funding Version 23.01 (June 29, 2023), Bay Area Quality Management District
34. Carl Moyer Program Policies and Procedures Funding Version 23.01 Appendices (October 20, 2022), Bay Area Quality Management District
35. Carl Moyer Program FY2015-2022 Policies & Procedures Significant Changes, Bay Area Air Quality Management District
36. Carl Moyer Program 2018 Yearly Report (August 23, 2018), Bay Area Air Quality Management

²³ The P&P was restructured before the Air District's Year 23 solicitation cycle to improve organization, remove redundant information, and eliminate extraneous administrative procedures. This streamlining was developed with the intent that the document meets CARB guidelines and provide District-specific policies and procedures. Policy changes included the addition of a new section and appendix for infrastructure projects, clarification on withholding payments for non-compliance, and specific changes to the On-Road and Off-Road categories, such as eligibility criteria and operational requirements.

District

37. Carl Moyer Program 2019 Yearly Report (August 23, 2019), Bay Area Air Quality Management District
38. Carl Moyer Program 2020 Yearly Report (August 27, 2020), Bay Area Air Quality Management District
39. Carl Moyer Program 2021 Yearly Report (September 3, 2021), Bay Area Air Quality Management District
40. Carl Moyer Program 2022 Yearly Report (August 29, 2022), Bay Area Air Quality Management District
41. Carl Moyer Program 2023 Yearly Report (October 4, 2023), Bay Area Air Quality Management District
42. Carl Moyer Program 2023 Staff Training Itinerary, Bay Area Air Quality Management District
43. Carl Moyer Program 2023 Cargo Handling Webinar (March 15, 2023), Bay Area Air Quality Management District
44. Carl Moyer Program 2023 General Grants Webinar (February 2, 2023), Bay Area Air Quality Management District
45. Carl Moyer Program 2023 Infrastructure Webinar (August 8, 2023), Bay Area Air Quality Management District
46. Carl Moyer Program 2023 Off Road Webinar (February 23, 2023), Bay Area Air Quality Management District
47. Carl Moyer Program 2023 Online System Guide, Bay Area Air Quality Management District
48. Carl Moyer Program 2023 School Bus Webinar (December 7, 2023), Bay Area Air Quality Management District
49. Carl Moyer Program Year 24 Readiness Requirement Infrastructure Solicitation (January 22, 2024), Bay Area Air Quality Management District
50. Carl Moyer Program Off Road ERP Dealership Training (January 11, 2024), Bay Area Air Quality Management District
51. Carl Moyer Program On Road Dismantler Training (October 2022), Bay Area Air Quality Management District
52. Carl Moyer Program Year 24 (FY 2021-2022) Competitive Solicitation Guidance (November 21, 2023), Bay Area Air Quality Management District
53. Carl Moyer Program Year 24 Infrastructure Projects with Ranking List Board of Directors Agenda (December 6, 2023), Bay Area Air Quality Management District
54. Carl Moyer Program IIS Process Maps (October 30, 2009), Bay Area Air Quality Management District²⁴

²⁴ Bay Area have updated this list to include Year 17 solicitation applications because some projects in this Year 17 solicitation were funded with Moyer Year 18.

55. Carl Moyer Program, Community Air Protection, FARMER, School bus FY 2016-2022 Applications Updated List (May 23, 2024), Bay Area Air Quality Management District²⁵
56. Carl Moyer Program Data Reported to CARB using CARL Database from FY 2016-2024 Updated (May 14, 2024), California Air Resources Board
57. Carl Moyer Program, Community Air Protection, FARMER, School bus FY 2016-2022 Paid Projects by Funding Source, Bay Area Air Quality Management District
58. Carl Moyer Program, Community Air Protection, FARMER, School bus FY 2016-2022 Account Reports & Project Transactions (January 23, 2024), Bay Area Air Quality Management District
59. Carl Moyer Program NonEJ List of 578 Vehicle Buy Back Projects – Car Scrap (January 21, 2020), Bay Area Air Quality Management District
60. Carl Moyer Program FY 2016-2022 Audit Project List, Bay Area Air Quality Management District
61. Annual Reporting Data 2018-2023, Bay Area Air Quality Management District
62. Carl Moyer Program Year 16-22 / MSIF / AB134 Outreach Summary, Bay Area Air Quality Management District
63. Carl Moyer Program, Community Air Protection, FARMER, School Bus Project Lifecycle FY 2016-2022, Bay Area Air Quality Management District
64. Board of Director Agenda 13 Carl Moyer Program 2016-2017 (March 01, 2017), Bay Area Air Quality Management District
65. Board of Director Agenda 5A Carl Moyer Program FARMER 2017-2018 (May 02, 2018), Bay Area Air Quality Management District
66. Board of Director Agenda 9 FARMER 2022-2023 (November 02, 2022), Bay Area Air Quality Management District
67. Board of Director Agenda 13 Community Air Protection 2022-2023 (December 21, 2022), Bay Area Air Quality Management District
68. Board of Director Agenda 2 Community Air Protection 2019-2020 (June 17, 2020), Bay Area Air Quality Management District
69. Board of Director Agenda 10 Carl Moyer Program, Community Air Protection, FARMER 2021-2012 (December 01, 2021), Bay Area Air Quality Management District
70. Board of Director Agenda 11 Carl Moyer Program Update 2018-2019 (February 06, 2019), Bay Area Air Quality Management District
71. Board of Director Agenda 17 Carl Moyer Program 2017-2018 (February 21, 2018), Bay Area Air Quality Management District
72. Board of Director Agenda 10 Carl Moyer Program 2015-2016 (March 16, 2016), Bay Area

²⁵ Bay Area have updated this list to include Year 17 solicitation applications because some projects in this Year 17 solicitation were funded with Moyer Year 18 funds. Bay Area also updated the tabs for Years 21-24 because some statuses may have changed since they first created the list in December 2023.

Air Quality Management District

73. Board of Director Agenda 17 Community Air Protection FARMER 2018-2019 (April 3, 2019), Bay Area Air Quality Management District
74. Board of Director Agenda 7 Community Air Protection 2017-2018 (April 18, 2018), Bay Area Air Quality Management District
75. Board of Director Agenda 13 FARMER 2019-2020 (November 20, 2019), Bay Area Air Quality Management District
76. Board of Director Agenda 11 Carl Moyer Program 2019-2020 (March 04, 2020), Bay Area Air Quality Management District
77. Board of Director Agenda 23 Carl Moyer Program 2022-2023 (December 07, 2022), Bay Area Air Quality Management District
78. Carl Moyer Program Year 18 BAAQMD Resolution (March 16, 2016), Bay Area Air Quality Management District
79. Carl Moyer Program Year 18 Bay Area Executed Grant Agreement Coversheet (April 21, 2016), Bay Area Air Quality Management District
80. Carl Moyer Program Year 19 BAAQMD Resolution (March 1, 2017), Bay Area Air Quality Management District
81. Carl Moyer Program Year 19 Bay Area Grant Agreement Coversheet (May 15, 2017), Bay Area Air Quality Management District
82. Carl Moyer Program Year 20 BAAQMD Resolution (May 02, 2018), Bay Area Air Quality Management District
83. Carl Moyer Program Year 20 Bay Area Grant Agreement Coversheet (April 24, 2018), Bay Area Air Quality Management District
84. Carl Moyer Program Year 21 BAAQMD Resolution (February 6, 2019), Bay Area Air Quality Management District
85. Carl Moyer Program Year 21 Bay Area Grant Agreement Coversheet – Regular Moyer Year (April 24, 2019), Bay Area Air Quality Management District
86. Carl Moyer Program Year 21 Bay Area Grant Agreement Coversheet – State Reserve Year (May 17, 2019), Bay Area Air Quality Management District
87. Carl Moyer Program Year 22 BAAQMD Resolution (March 4, 2020), Bay Area Air Quality Management District
88. Carl Moyer Program Year 22 Bay Area Grant Agreement Coversheet (March 25, 2020), Bay Area Air Quality Management District
89. Carl Moyer Program Year 23 BAAQMD Resolution (January 20, 2021), Bay Area Air Quality Management District
90. Carl Moyer Program Year 23 Bay Area Grant Agreement Coversheet – Regular Moyer Year (May 28, 2021), Bay Area Air Quality Management District
91. Carl Moyer Program Year 23 Bay Area Grant Agreement Coversheet – State Reserve Year (May 28, 2021), Bay Area Air Quality Management District
92. Carl Moyer Program Year 24 BAAQMD Resolution (December 1, 2021), Bay Area Air Quality Management District

Quality Management District

93. Carl Moyer Program Year 24 Bay Area Grant Agreement Coversheet – Regular Moyer Year (March 16, 2022), Bay Area Air Quality Management District
94. Carl Moyer Program Year 24 Bay Area Grant Agreement Coversheet – State Reserve Year (June 06, 2022), Bay Area Air Quality Management District

Community Air Protection (CAP) Incentives Program

1. California Climate Investments (CCI) Funding Guidelines, August 2018
2. Community Air Protection Incentives Guidelines (2019)
3. Community Air Protection Incentives 2019 Guidelines Staff Report
4. CCI Funding Guidelines 2022 Update to Section VII.B on Priority Population Definitions
5. Sample Policies and Procedures Manual for Community Air Protection Incentives Projects
6. Community Air Protection Grant Funding No. 2019-05 (April 3, 2019), Bay Area Air Quality Management District
7. Community Air Protection BAAQMD Resolution No. 2017-14 (December 20, 2017), Bay Area Air Quality Management District
8. Community Air Protection BAAQMD Resolution No. 2021-19 (December 1, 2021), Bay Area Air Quality Management District
9. Community Air Protection Grant Agreement Cover Sheet Year 2019/2020 (October 15, 2020), Bay Area Air Quality Management District
10. Community Air Protection Grant Agreement Cover Sheet Year 2 (FY 2018-2019) (May 10, 2022), Bay Area Air Quality Management District
11. Community Air Protection Grant Agreement Cover Sheet Year 20 (June 10, 2021), Bay Area Air Quality Management District
12. Community Air Protection Grant Agreement Cover Sheet Year 5 (FY 2021-2022) (June 23, 2022), Bay Area Air Quality Management District
13. Community Air Protection CARL Data (May 16, 2024), Bay Area Air Quality Management District
14. Community Air Protection 2018 Yearly CAP BAAQMD Jobs Outreach, Bay Area Air Quality Management District
15. Community Air Protection 2019 Mid-Cycle CAP Jobs Outreach Reporting Template Updated (May 2019), Bay Area Air Quality Management District
16. Community Air Protection 2019 Mid-Cycle CAP Report (May 30, 2019), Bay Area Air Quality Management District
17. Community Air Protection 2019 Yearly CAP BAAQMD Jobs Outreach, Bay Area Air Quality Management District

18. Community Air Protection 2020 Mid-Cycle CAP BAAQMD Jobs Outreach, Bay Area Air Quality Management District
19. Community Air Protection 2020 Yearly CAP BAAQMD Jobs Outreach (November 2020), Bay Area Air Quality Management District
20. Community Air Protection 2021 Mid-Cycle CAP BAAQMD Jobs Outreach, Bay Area Air Quality Management District
21. Community Air Protection 2021 Yearly CAP BAAQMD Jobs Outreach (October 31, 2021), Bay Area Air Quality Management District
22. Community Air Protection 2022 Mid-Cycle CAP BAAQMD Jobs Outreach (April 30, 2022), Bay Area Air Quality Management District
23. Community Air Protection 2022 Yearly CAP BAAQMD Jobs Outreach (November 2022), Bay Area Air Quality Management District
24. Community Air Protection 2023 Mid-Cycle CAP BAAQMD Jobs Outreach (May 2023), Bay Area Air Quality Management District
25. Community Air Protection 2023 Yearly CAP BAAQMD Jobs Outreach (November 2023), Bay Area Air Quality Management District

Funding Agricultural Replacement Measures for Emission Reductions (FARMER) Program

1. Funding Agricultural Replacement Measures for Emission Reductions Program Guidelines (March 23, 2018), California Air Resources Board
2. FARMER Demonstration Solicitation Final (April 2020), Bay Area Air Quality Management District
3. FARMER BAAQMD Resolution No. 2019-04 (April 3, 2019), Bay Area Air Quality Management District
4. FARMER BAAQMD Resolution No. 2022-26 (November 2, 2022), Bay Area Air Quality Management District
5. FARMER BAAQMD Resolution No. 2019-13 (November 20, 2019), Bay Area Air Quality Management District
6. FARMER BAAQMD Resolution No. 2018-04 (May 2, 2018), Bay Area Air Quality Management District
7. FARMER BAAQMD Resolution No. 2021-20 (December 1, 2021), Bay Area Air Quality Management District
8. FARMER BAAQMD Grant Agreement Cover Sheet G17 (April 19, 2021), Bay Area Air Quality Management District
9. FARMER BAAQMD Grant Agreement Cover Sheet G19 (April 8, 2022), Bay Area Air Quality Management District

Goods Movement Emission Reduction Program (GMERP)

1. Goods Movement 2015 Guidelines (June 2015), California Air Resources Board
2. Goods Movement Final 2015 Guidelines for Implementation, California Air Resources Board
3. Goods Movement Staff Org Chart and Business Process Workflow, Bay Area Air Quality Management District
4. Goods Movement Program Application for Year 5 Funding – On-Road Heavy Duty Diesel Trucks (July 31, 2015), Bay Area Air Quality Management District
5. Goods Movement Program Application for Year 5 Funding – Locomotives and Rail Yards (July 31, 2015), Bay Area Air Quality Management District
6. Goods Movement Program Application for Year 5 Funding – Ships at Berth & Cargo Handling Equipment (July 31, 2015), Bay Area Air Quality Management District
7. Goods Movement Program Supplemental Procedures for Ships at Berth Grid-Based Power Projects (September 2015), California Air Resource Board
8. Goods Movement Program Application for Year 5 Funding – Transportation Refrigeration Units (July 31, 2015), Bay Area Air Quality Management District
9. Goods Movement Program Cargo Handling Equipment (Year 5 Solicitation #1-2, 4-6) Preliminary Ranked List, Bay Area Air Quality Management District
10. Goods Movement Program Heavy Duty Diesel Trucks (Year 5 Solicitation #1-8) Preliminary Ranked List, Bay Area Air Quality Management District
11. Goods Movement Program Locomotives (Year 5 Solicitation #1-3) Preliminary Ranked List, Bay Area Air Quality Management District
12. Goods Movement Program Ships at Berth (Year 5 Solicitation #1) Preliminary Ranked List, Bay Area Air Quality Management District
13. Goods Movement Program Transportation Refrigeration Units (Year 5 Solicitation #1-2, 7) Preliminary Ranked List, Bay Area Air Quality Management District
14. Goods Movement Program Projects Terminated List, Bay Area Air Quality Management District
15. Explanation of Funding Flow from CARB to Applicant (January 23, 2024), Bay Area Air Quality Management District
16. Goods Movement Program Subledger Grant Detail Accounting Report Year 5 (January 23, 2024), Bay Area Air Quality Management District
17. Goods Movement Program Resolution 13-34 on Award of \$154M in Year 4 Funds (July 25, 2013), California Air Resource Board
18. Goods Movement Program Resolution 15-20 Updates to Guidelines (June 25, 2015), California Air Resource Board

19. Goods Movement Program Resolution 15-43 on Award of \$220M in Year 5 Funds (September 24-25, 2015), California Air Resource Board
20. Executive Order G-17-004 Updates to Guidelines (January 2017), California Air Resource Board
21. Executive Order G-20-143 Updates to Guidelines (February 2020), California Air Resource Board
22. Goods Movement Program Staff Report (July 25, 2013), California Air Resource Board
23. Goods Movement Program Staff Report (June 25, 2015), California Air Resource Board
24. Goods Movement Program Staff Report (September 24, 2015), California Air Resource Board
25. Goods Movement Program Fliers and Handouts (Year 4), Bay Area Air Quality Management District
26. Goods Movement Program Presentations (Year 4), Bay Area Air Quality Management District
27. Goods Movement Program Website Updates and Documents (Year 4), Bay Area Air Quality Management District
28. Goods Movement Program Press Release (November 5, 2013), Bay Area Air Quality Management District
29. Goods Movement Program Email Blast (Year 5), Bay Area Air Quality Management District
30. Goods Movement Program Fliers and Handouts (Year 5), Bay Area Air Quality Management District
31. Goods Movement Program Press Release (March 16, 2017), Bay Area Air Quality Management District
32. Goods Movement Program Dismantler Training (2013), Bay Area Air Quality Management District
33. Goods Movement Program Year 4 Applications (September 26, 2013) Hayward, CA, Bay Area Air Quality Management District
34. Goods Movement Program Year 4 Program Overview (June 25, 2013) San Jose, CA, Bay Area Air Quality Management District
35. Goods Movement Program Vendor Training (2013), Bay Area Air Quality Management District
36. Goods Movement Program Trucks Program (Year 5), Bay Area Air Quality Management District
37. Goods Movement Program Year 5 Webinar (November 18, 2020), Bay Area Air Quality Management District

38. Goods Movement Program On-Road Grant Funding Opportunities (June 7, 2017), Bay Area Air Quality Management District
39. Goods Movement Program Year 5 Port of Oakland Trucker Work Group (January 9, 2017), Bay Area Air Quality Management District
40. Goods Movement Program Certified Dismantler List, Bay Area Air Quality Management District

Clean Cars for All (CC4A)

1. BAAQMD CC4A Implementation Plan G22-CC4A-03_Rev2 (11-21-23)
2. BAAQMD CC4A Implementation Plan (12-20-2022)
3. BAAQMD EFMP Plus Up Plan Final-sep2017
4. Clean Cars for All Program Terms & Conditions
https://www.baaqmd.gov/~media/landing-pages/ccfa/resources/ccfa-terms-and-conditions-2024-final_march-22nd-2024_website-version-pdf.pdf?rev=91b9a07b974d45529ea40f692df55275&sc_lang=en
5. Grant Agreement G16-LCTI-04-02
6. Grant Agreement G17-VW-01-1
7. Grant Agreement G18-PLUS-03
8. Grant Agreement G20-PLUS-03
9. CARB Goals for CC4A 2019-20
10. CARB Goals for CC4A 2020-21
11. CARB Goals for CC4A 2021-22
12. Reports Submitted to CARB Q1-4 2019
13. Reports Submitted to CARB Q1-4 2020
14. Reports Submitted to CARB Q1-4 2021
15. Internal policies and procedures related to application intake, review, and approval
 - a. CC4A-Project Review Check List Final 10242023 CLEAN CARS 4ALL
 - b. CC4A-Project Review Check List Final CLEAN CARS FOR ALL CONFIDENTIAL 111523
 - c. CC4A-VW Entrance Interview Questions CONFIDENTIAL111523
 - d. CC4A-VW Entrance Interview QuestionsNovember2023 Confidential
 - e. CC4A Application User Guide
 - f. CC4A Outreach and Marketing 2024

16. CC4A Org Chart (2024)
17. Workflow for CC4A (2024)
18. List of CC4A Approved Projects
19. List of CC4A Dealerships
20. RFQ used to procure dealers within the dealer network
 - a. RFQ 2019 007 Appendix A Sample Award Letter
 - b. RFQ 2019 007 Appendix B Sample Sales Report
 - c. RFQ 2019 007 Appendix C Dealer Information Form
 - d. RFQ 2019 007 Appendix D Sample CC4A Contract
 - e. RFQ 2019 007 Dealer List for Clean Cars for All
 - f. RFQ 2019 007 Dealers and EVSE Installers Addendum No 2 013020
 - g. RFQ 2019 007 Dealers for Clean Cars for All Addendum No 1 102319
 - h. RFQ 2022 Appendix A Dealer Information Form Updated 062723
 - i. RFQ 2022 008 Appendix B Sample Sales Report
 - j. RFQ 2022 008 Appendix C Sample Award Letter Updated 12202022
 - k. RFQ 2022 008 Appendix D Sample Contract Updated 090822
 - l. RFQ 2022 008 Appendix E Dealership Checklist Updated 122022
 - m. RFQ 2022 008 Appendix F Sample Proof of Insurance
 - n. RFQ 2022 008 Authorized Dealer List for Clean Cars for All Program
 - o. RFQ 2022 008 Authorized Dealer List for Clean Cars for All Program Updated 062723
 - p. RFQ 2022 008 Authorized Dealer List for Clean Cars for All Program Updated 090822
 - q. RFQ 2022 008 Authorized Dealer List for Clean Cars for All Program Updated 122022
21. Signed Contracts Between Selected Dealerships and BAAQMD
22. Listing of Vehicles Returned to Dealerships due to errors
23. Fluxx Disaster Recovery Plan (2024)
24. Fluxx Penetration Test Report (2024)
25. Fluxx SOC 2 Type 2 report (2024)
26. Fluxx SOC 2 Type 2 Report Bridge Letter (2024)
27. Fluxx Architecture Diagram (2024)
28. Project Background for Clean Cars 4 All | California Air Resources Board

Low Carbon Transportation (LCT) Incentives and Air Quality Improvement Program

1. Low Carbon Transportation Goodwill Industries Electric Delivery Vehicle Project Final Report (February 2021), Goodwill Industries of San Francisco, San Mateo, and Marin Counties, Inc. (SFGoodwill).
2. Low Carbon Transportation Grant Agreement G16-ZTRK-01 Amendment 2 (October 20, 2020), California Air Resource Board
3. Low Carbon Transportation Grant Provisions G16-ZTRK-01 Amendment 2 – Exhibit A, California Air Resource Board
4. Low Carbon Transportation Budget Summary G16-ZTRK-01 Amendment 2 – Exhibit B, California Air Resource Board
5. Low Carbon Transportation Project Tasks/Milestones and Disbursement Schedule G16-ZTRK-01 Amendment 2 – Exhibit B, California Air Resource Board
6. Low Carbon Transportation Project Schedule G16-ZTRK-01 Amendment 2 – Exhibit B, California Air Resource Board
7. Low Carbon Transportation Key Project Personnel G16-ZTRK-01 Amendment 2 – Exhibit B, California Air Resource Board
8. Low Carbon Transportation Professional Services, Project Funds, and Air District Admin Accounting Report, Bay Area Air Quality Management District
9. Low Carbon Transportation Grant Provisions Chapter 4.4 – 4.8 Project Records G16-ZTRK-01 Amendment 2 –Exhibit A, California Air Resource Board
10. Explanation of Funding Flow from CARB to Applicant (January 29, 2024), Bay Area Air Quality Management District
11. Low Carbon Transportation Grant Provisions Chapter 3 Scope of Work G16-ZTRK-01 Amendment 2 –Exhibit A, California Air Resource Board
12. Low Carbon Transportation Grant Provisions Chapter 9 Project Records G16-ZTRK-01 Amendment 2 –Exhibit A, California Air Resource Board

Volkswagen Environmental Mitigation Trust Program

Zero-Emission Freight and Marine (ZEFM) Program

1. Beneficiary Mitigation Plan, dated June 2018
2. Volkswagen Mitigation Action Project Agreement for Zero-Emission Freight and Marine Projects (\$70M for zero-emission airport ground support equipment (GSE), heavy-lift forklifts, port cargo handling equipment, ferry, tugboat or towboat and oceangoing vessel shore power systems at berth).
3. Solicitation Guidance for the Zero-Emission Freight and Marine Program;
4. Pre-Solicitation Workshop Materials (presentation and recording);
5. Eblasts announcing upcoming solicitations and the opening of solicitations;
6. Example funding agreement;
7. Fliers for each of the five equipment types;
8. FAQ.
9. Volkswagen Environmental Mitigation Trust Fund Implementation Manual (IM), Zero Emission Freight and Marine Program, updated January 29, 2024.
10. ZEFM award list, dated November 4, 2020;
11. ZEFM award list, dated October 1, 2024 (on CARB website).
12. Monthly coordination meeting agendas and minutes for meetings between CARB and BAAQMD (2019-2024); each meeting provided an update on the ZEFM program status, solicitation status, and approved project lists.
13. Quarterly and semi-annual reports.

Light Duty Electric Vehicle Infrastructure (VW LDI) Program

1. Beneficiary Mitigation Plan, dated June 2018
2. Volkswagen Mitigation Action Project Agreement for Light-Duty Zero-Emission Vehicle (ZEV) Infrastructure Projects, Exhibit A (\$5M for charging stations, \$5M for hydrogen refueling stations)
3. Solicitation Guidance for the Light-Duty Electric Vehicle Infrastructure Program Volkswagen Environmental Mitigation Trust Fund, issued May 11, 2021, with the addition of:
 - a. Addendum #1, dated June 22, 2021;
 - b. Addendum #2 dated June 25, 2021.
4. Application Checklist (including project list template and sample letter of commitment from beneficiaries).
5. Pre-Application Webinar documents:

- a. 5/26/21 presentation;
 - b. 6/23/21 presentation;
 - c. 7/29/21 presentation.
6. Question and Answer (Q&A) document, dated 7/6/2021;
 7. Notice of Proposed Award, November 23, 2021.
 8. Volkswagen Mitigation Trust Fund Implementation Manual for Light Duty Zero-Emission Vehicle Infrastructure – Electric Vehicle Infrastructure Program.
 9. Evaluation scoring results, including supporting basis for ranking;
 10. VWLDI Rank List, dated November 23, 2021;
 11. VWLDI Rank List, dated September 16, 2022 (on CARB website);
 12. List of Potential Project Beneficiaries dated August 17, 2021.
 13. Grant Data (for selected projects)
 - a. *EVgo*
 - i. EVgo Application;
 - ii. Approval email;
 - iii. Agreement, including amendments 1 and 2;
 - iv. Project documentation (design documents, inspection reports, invoices, closeout);
 - v. Progress reports;
 - b. *RenewAge*
 - i. RenewAge Application;
 - ii. Approval email;
 - iii. Agreement, including amendments 1 and 2;
 - iv. Project documentation (design documents, inspection reports, invoices, closeout);
 - v. Progress reports.
 14. Monthly coordination meeting agendas and minutes for meetings between CARB and BAAQMD (2019-2024); each meeting provided an update on the LDV program status and ranked project lists.
 15. Quarterly and semi-annual reports.

Hydrogen Refueling Infrastructure Program

1. Grant Funding Opportunity, Clean Transportation Program, Hydrogen Refueling Infrastructure, Addendum 4, dated May 2020.
2. Agreement between BAAQMD and California Energy Commission, dated May 29, 2020; provided \$5M in funding to CEC to hydrogen refueling station projects.
3. GFO-19-602_Fourth_Revised_NOPACover_Letter_2023-05-12_ada; GFO-19-602_Fourth_Revised_NOPA_Table_2023-05-12_ada.
4. Reporting
 - a. Monthly coordination meeting agendas and minutes for meetings between CARB and BAAQMD (2019-2024); each meeting provided an update on the Hydrogen program status.
 - b. 2023 Annual Evaluation of Fuel Cell Electric Vehicle Deployment.

Appendix E: Program Outreach Methodology

Carl Moyer Memorial Air Quality Standards Attainment Program (CMP)

BAAQMD focuses on reducing emissions in highly impacted Bay Area communities through a comprehensive outreach campaign centered on the CMP. Each year, BAAQMD begins the campaign with an evaluation of the previous cycle's efforts, incorporating lessons learned and reviewing potential projects in light of CARB regulations and updates to the CMP Guidelines. The campaign is structured to be open-ended and sustained, without an RFP process, and aims to inform the public about the CMP while encouraging zero-emission equipment replacements. Key objectives include reaching individuals and entities in impacted communities and directing interested parties to the Air District's website and online application tool.

Outreach activities are diverse, including webinars, community meetings, public workshops, and vendor meetings. Written materials such as direct mailings, fact sheets, flyers, email blasts, and press releases are also utilized. The Air District's CMP website serves as a hub for program information, application links, and staff contact details. A stakeholder mailing list and email collection facilitate efficient communication with interested parties, and collaboration with equipment dealers and vendors enhances outreach efforts.

When processing project applications, staff gather information on how applicants heard about the program and whether they attended workshops. This feedback, along with a review of the outreach campaign and lessons learned, informs the planning of future outreach efforts. The Air District continues to provide CMP and other incentive program information through various channels, so that the public is informed about funding opportunities and program requirements. These efforts are designed to encourage the adoption of cleaner technologies and reduce emissions in impacted communities.

Community Air Protection (CAP) Incentives Program

BAAQMD indicates it is committed to reducing emissions in highly impacted Bay Area communities through the Community Air Protection (CAP) program, which emphasizes public outreach and dialogue with community organizations. This engagement, including collaboration with community steering committees, is intended so that BAAQMD selects and funds projects based on community input, aligning with the mandate of AB 617. Each year, BAAQMD evaluates past outreach efforts and integrates CAP activities into the annual CMP program, adapting methods to address community feedback and target key equipment categories.

To reach potential applicants, particularly in disadvantaged and low-income communities, the BAAQMD employs a variety of outreach methods. These include press releases, email blasts, webinars, and telephone calls. Public workshops, social media notices, and mail-outs further support these efforts. Designated staff provide technical assistance and maintain a stakeholder mailing list to facilitate communication. During solicitations, ongoing outreach telephone calls

focus on Priority Areas, and program information is readily available on the Air District's website, along with an online Open-Air Forum for public input.

Transparency and public access are central to the BAAQMD's strategy. The Air District maintains websites for its CAP Incentives program, providing current information about availability and eligibility requirements. Before funding decisions are made, projects recommended for approval are posted online. BAAQMD also provides contact information for public inquiries and technical assistance. Outreach efforts prioritize projects that benefit disadvantaged and low-income communities, using CCI guidelines and the CCI Priority Populations map for evaluation.

In CAP Year 1, BAAQMD prioritized projects benefiting highly impacted and low-income areas as defined by AB 1550 and SB 535, focusing outreach efforts on the 880/80 Corridor, including East and West Oakland, Berkeley, and Richmond, as well as the Refinery Corridor from Rodeo to Pittsburg. In subsequent years, BAAQMD continued to prioritize projects in AB 617 CAP communities and other priority population areas, such as West Oakland, Richmond-San Pablo, East Oakland, and Bayview Hunters Point. These efforts were intended to focus CAP funding to primarily benefit the health of residents in these communities, with a focus on projects that included the cleanest available technologies and infrastructure.

While BAAQMD has been effective in allocating funds, it sees an opportunity to enhance collaboration with community steering committees to include community input in future projects. This involves distinguishing between community-requested projects, where communities lay out general types of projects, and community-identified projects, where the community selects specific projects. By strengthening this collaboration, BAAQMD believes it can better align with the objectives of AB 617, allowing for projects that not only benefit communities but also ones that are shaped by their input and priorities.

BAAQMD reports semi-annually to CARB on the implementation of CAP incentives, detailing public outreach events and campaigns, including dates, locations, and attendance. Staff from various divisions, including Community Engagement and Planning and Climate Change, work with AB 617 identified communities to understand community priorities, implement emission reduction plans, and identify potential community projects. By prioritizing projects that benefit these communities, BAAQMD aims to improve public health and environmental outcomes and thus fulfill the objective.

Goods Movement Emission Reduction Program (GMERP)

BAAQMD engages in outreach activities to elicit community and public participation for its projects. The agency implements mechanisms for public input on equipment project solicitations, ranked project lists, progress reports, and status updates, which are accessible on both the CARB and BAAQMD websites. To enhance transparency, BAAQMD maintains a public-facing website with a direct hyperlink from its main webpage. This site provides essential information, including local agency contact details, links to CARB's program website, and details on equipment project solicitations and ranked project lists.

In terms of marketing for GMERP, BAAQMD employs a variety of strategies to reach owners of program-eligible equipment. These strategies include maintaining a list of interested parties, utilizing web-based marketing, and placing advertisements in local and non-English publications, as well as on the radio. The agency also issues public notices, distributes brochures, partners with trade associations, and holds outreach events. For independent truck owner/operators, BAAQMD designs targeted outreach programs, including events outside normal working hours, to inform them about funding opportunities and assist with applications. This outreach includes educational kiosks, toll-free numbers with multilingual support, and notices in local papers.

BAAQMD provides information on fuel efficiency upgrades for trucks, such as aerodynamic devices and low-rolling resistance tires, which can reduce emissions and offer cost savings. While the BAAQMD does not fund these upgrades, other incentives may be available. In alignment with AB 761, BAAQMD encourages small business participation in infrastructure projects by advertising bidding opportunities, providing bidding procedures, and offering training and technical assistance. The agency collects and reports statistics on small business participation in this program.