

**Air Pollution Reduction Incentive Programs  
Program Review Report  
San Diego County Air Pollution Control District  
Fiscal Years 2011-12 through 2018-19**

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State of California  
Air Resources Board  
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## 1. Introduction

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). As part of this oversight responsibility, CARB staff in the Mobile Source Control Division and the Transportation and Toxics Division has conducted a review of the incentive programs implemented by the San Diego County Air Pollution Control District's (San Diego County APCD or District).

This CARB program review report, previously known as audit report, describes the scope of the review, the projects selected for review and site inspection, 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. CARB's report and the District response will then be posted on the CARB Incentive Program Audits and Program Reviews website at <https://ww2.arb.ca.gov/carl-moyer-program-incentives-program-oversight>.

CARB incentive program reviews serve the public interest for transparency and accountability, helping to ensure that expenditures of State funds achieve intended outcomes and are within legal requirements. Projects are selected for review following a risk evaluation. These projects represent a percentage of the funds expended during the years within the overall scope of the review. Unless noted, issues and findings reported here pertain to the individual circumstances described and do not apply to other projects, although they may be indicative of similar issues occurring with projects not reviewed.

The San Diego County APCD is one of the largest of California's local air districts and is responsible for air quality in San Diego County and the contiguous San Diego Air Basin. The District implements air pollution reduction incentives projects in the 18 incorporated cities and some surrounding unincorporated areas. The District encompasses approximately 4,526 square miles including 70 miles of coastline and is home to over 3.3 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.

CARB staff began the San Diego County APCD program review in July 2020 and completed it in April 2021. CARB staff reviewed the District implementation of the following incentive programs:

- The Carl Moyer Memorial Air Quality Standards Attainment Program (Carl Moyer Program)
- Community Air Protection (CAP) incentives

- The Proposition 1B Goods Movement Emission Reduction Program (Goods Movement Program)
- The Funding Agricultural Replacement Measures for Emission Reductions (FARMER) Program

This review was conducted in accordance with CARB's policies and procedures for review of incentive programs, which are viewable at the following CARB website: <https://ww2.arb.ca.gov/carl-moyer-program-incentives-program-oversight>. The scope of the review includes grant agreements between CARB and the District made in fiscal years (FY) 2011-12 through 2018-19. The review began with an entrance conference held on July 14, 2020, via Microsoft Teams video. Staff from the air district, CARB, and the California Department of Finance Office of State Audits and Evaluations (Department of Finance) attended this meeting. Additionally, CARB staff presented the results of the program review at an exit meeting held with the District on April 9, 2021.

CARB's program review was supplemented by a fiscal review conducted by the California Department of Finance beginning July 13, 2020. Department of Finance presented their observations and recommendations at a separate exit meeting on January 15, 2021 and issued their report on February 2, 2021. Based on the procedures performed and evidence gathered, the Department of Finance concluded in the final report that the incentive programs' revenues, expenditures, and resulting balances were in compliance with applicable grant agreements, guidelines, and statutes. The final reports for the Department of Finance and CARB are posted on the agencies' websites.

## 2. Overall Assessment

CARB Incentive Program Review has determined that the four District incentive programs reviewed are efficiently and effectively achieving their emissions reduction objectives.

### a. Carl Moyer Program

For the fiscal years in scope, the District funded 261 projects and 384 engines with \$31,722,027 in State funds and District Match funds and \$1,925,899 in Multi-district/State Reserve funds. Project categories within the scope of review included marine, off-road construction and mobile agriculture, on-road heavy duty trucks, and on-road Voucher Incentive Program, a locomotive project and an infrastructure project.

CARB staff identified no findings for the District's implementation of the Carl Moyer Program. In addition, CARB staff offers three recommendations discussed further in Section 5 of this report.

### **b. CAP Incentives**

For the fiscal years in scope, the district funded 13 projects and 34 engines with \$5,039,261 in State funds. Project categories within the scope of review included marine, off-road construction and mobile agriculture, on-road heavy-duty, and infrastructure. There were also five off-road mobile projects to replace diesel engine forklifts with zero-emission forklifts.

CARB staff identified no findings for the District's implementation of CAP Incentives. Additionally, CARB staff offers two recommendations, further discussed in Section 5 of this report.

### **c. Goods Movement Program**

For the fiscal years in scope, the District accepted five Goods Movement Program grants totaling \$33,321,734. The District reported grants funding the replacement of 374 heavy-duty diesel trucks, the installation of CARB-certified Level-3 retrofit devices on 70 diesel trucks, and nine engine repowers on commercial harbor craft. (CARB combined the FY 2008-09 and FY 2011-2012 grants for the truck projects because these grants covered projects from the same statewide solicitation and the same ranked lists.)

CARB staff identified no findings or recommendations for the District's implementation of the Goods Movement Program.

### **d. FARMER Program**

For the fiscal years in scope, the District has funded 58 projects with \$2,495,968 in State funds. Project categories within the scope of review included off-road agricultural equipment, zero-emission agricultural utility terrain vehicles (UTV), irrigation pumps, and on-road agricultural trucks per FARMER Program guidelines.

CARB staff identified no findings for the District's implementation of the FARMER Program. Additionally, CARB staff offers one recommendation which is discussed in Section 5 of this report.

## **3. Scope of the Program Review**

As per the direction provided by Assembly Bill (AB) 423 (Chapter 744, Statutes of 2019), this review looks at FY 2011-12 through FY 2018-19. This program review examines four separate incentive programs described below:

### **a. Carl Moyer Program**

The Carl Moyer Program funds cleaner-than-required vehicles and equipment to help reduce air pollution. Funded projects must achieve early or extra emissions reductions

not otherwise required by law or regulation. Funds for the Carl Moyer Program include tire replacement and vehicle registration (smog abatement) fees. 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 on-road and off-road vehicles and equipment, marine engines, shore power, locomotives, stationary agriculture pumps, emergency equipment, lawn and garden equipment, and light duty vehicle scrap. Similar to other large and medium-sized air districts, the San Diego County APCD contributes match funds as required by the Carl Moyer Program.

For the Carl Moyer Program, the scope of the review covered grant awards for FY 2011-12 through 2018-19. The tables in Appendix 1 provide an overview of the Carl Moyer Program funds received by the District for each fiscal year within the scope of this review. Table 1 in Appendix 1 lists the project and administration funding that the District received to implement the program, as well as the District's match funding commitment for each year's grant.

The District also received a subset of Carl Moyer Program funds reserved by CARB for high-priority project types specific to fiscal year, known as State Reserve or Multi-District Funds, as shown in Table 2 of Appendix 1. The District did not receive Multi-district/State Reserve funds for FYs 2012-13 through 2015-16. These funds did not require District matching funds.

In Appendix 1, Table 3A summarizes Carl Moyer Program project and engine totals by fiscal year grouping. Tables 3B to 3D projects and engines by source category and fiscal year. Note that at the time of the program review the District had not yet funded projects with FY 2018-19 funds.

#### **b. CAP Incentives**

Community Air Protection incentives facilitate emissions reductions through clean air projects in disadvantaged and low-income communities heavily impacted by air pollution. Community engagement is key to project selection. While CARB develops statewide implementation guidelines, distributes funds to districts and conducts oversight, the District must conduct a transparent and meaningful public process, including community outreach and public meetings, to guide District funding decisions. Funding for CAP incentives comes from the Greenhouse Gas Reduction Fund, with spending in accordance with the goals of Assembly Bill (AB) 617 (C. Garcia, Chapter 136, Statutes of 2017) AB 617 and requirements of California Climate Investments. CAP incentives fund 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. District match funds are not required.

For CAP incentives, the scope of the review covered grant awards for FYs 2017-18 through 2018-19. In Appendix 2, Table 1 lists the project and implementation funding that the District received to implement the program. Table 2A summarizes CAP Incentives project and engine totals by fiscal year grouping, while Table 2B shows engines and projects by source category and fiscal year.

### **c. Goods Movement Program**

The Goods Movement Emission Reduction Program offers grants to owners of equipment used in freight movement to fund the purchase of cleaner technologies that quickly reduce air pollution emissions and health risks from freight movement along California's trade corridors. The Goods Movement Program is funded by bonds authorized by Proposition 1B, and is implemented by local agencies that apply to CARB for grants to fund specific project categories. At the discretion of the implementing agency, the project categories may include heavy duty trucks used in goods movement through specific corridors or serving seaports or railroad intermodal transportation hubs, locomotives, ships at berth and commercial harbor craft, and cargo handling equipment. CARB develops guidelines, awards grants to fund projects proposed by air districts and seaports, and conducts periodic oversight. The Goods Movement Program does not require the District to contribute match funds.

For the Goods Movement Program, the scope of the review covered awards for the FY 2008-09, FY 2011-12, FY 2013-14, and FY 2014-15 grant funding cycles. In Appendix 3, Table 1 lists the project and administration grant amounts for the District to implement the program. Table 2 summarizes the number of truck retrofits, truck replacements, and commercial harbor craft engine repowers funded as of the Proposition 1B Semi-Annual Status Report dated June 30, 2020.

([https://ww2.arb.ca.gov/sites/default/files/2020-06/Proposition%201B%20-%20Goods%20Movement%20June%202020%20Semi-Annual%20Report\\_0.pdf](https://ww2.arb.ca.gov/sites/default/files/2020-06/Proposition%201B%20-%20Goods%20Movement%20June%202020%20Semi-Annual%20Report_0.pdf)).

### **d. 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 has received subsequent appropriations in FYs 2018-19 and 2019-20 from the California Legislature. Funding sources for the program have included the Greenhouse Gas Reduction Fund, 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 ensure that the projects funded will provide the intended emission reductions.

For the FARMER Program, the scope of the review covered grants awarded in FYs 2017-18 and 2018-19. In Appendix 4, Table 1 lists the project and administration grant amounts for the District to implement the program, while Table 2 summarizes the projects and engines funded with each grant received, by type of project.

#### 4. Projects Selected for File Review and Site Inspection

In addition to reviewing District implementation of 4 State-sponsored incentive programs, CARB staff chose 29 funded projects for full project review. In choosing specific projects CARB staff considered the range of project types funded by the District during the fiscal years within the scope of the review. The funding sources considered in selecting the project review sample included all grant and match funds listed in Tables 1 and 2 of Appendix 1, and Table 1 of Appendices 2 through 4, as well as the interest earned on those grant funds and expended on projects.

The District also used \$4 Department of Motor Vehicle fees (DMV) provided by AB 2766 (Sher, Statutes of 1990) to fund projects (match and non-match) during the time period covered by the review. CARB staff selected and evaluated one project funded by match \$4 DMV as part of the review sample.

Among the 29 projects selected for review, 8 were selected for virtual project inspection. May be found in Appendices 1-4 identifying the projects selected for full review and those selected for inspection. Although on-site inspections were avoided during the past year, CARB staff was able to conduct virtual inspections using conferencing software, in coordination with District staff and the grantees onsite. Virtual inspections included taking photographs for subsequent CARB staff review relative to project file information, recording of equipment serial numbers, and confirmation of the equipment in operation.

A project may consist of multiple vehicles and/or pieces of equipment that have been replaced or repowered. Some vehicles and/or pieces of equipment may also have multiple engines. Projects selected for full review and inspection were selected from all the projects funded during the fiscal years within the scope of the program review. Below is an overview of the projects for the years in scope for each incentive program.

##### a. Carl Moyer Program

CARB's program review team selected 10 projects for full file review, 3 of which were inspected. As shown in Table 4 of Appendix 1, the reviewed projects covered a range of source categories including marine vessels, the on-road heavy-duty voucher incentive program, on-road heavy-duty school bus, off-road construction, and mobile agriculture equipment.



### **b. CAP Incentives**

The review team selected three projects for full file review and inspected one of these. As shown in Table 3 of Appendix 2, the reviewed projects covered the source categories marine vessels, off-road equipment, and off-road mobile construction.

### **c. Goods Movement Program**

The review team selected 12 projects for full file review and further inspected 2 of these. As shown in Table 3 of Appendix 3, the reviewed projects covered the source categories heavy-duty trucks, locomotives, commercial harbor craft, ships at berth, and cargo handling.

### **d. FARMER Program**

The review team initially selected five projects for full review. After the District clarified during the review process that one of the projects had been cancelled, CARB staff conducted a full review for the four remaining projects, and inspected two of these. The four projects were in the off-road agricultural equipment source category, as shown in Table 3 of Appendix 4.

## **5. Findings and Recommendations**

“Findings” are district practices found to be inconsistent with one or more requirements of statute, State guidelines, or District Policies and Procedures. See Appendix 6 for the sources of these requirements. “Conditions” are detailed descriptions of the District’s practices that resulted in findings as revealed by the review. “Required Actions” are the minimum actions the District must take to mitigate the findings.

CARB staff may offer “Recommendations” when district 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.

For information on the authority to review District incentive programs and additional information, see Appendix 6.

CARB staff identified no findings for the District’s implementation of incentive programs from either file review or project inspections. Note that the results of the Department of Finance independent fiscal review is included in their separate report, to be posted on CARB’s incentive program review website at:

<https://ww2.arb.ca.gov/carl-moyer-program-incentives-program-oversight>.

Following completion of project file reviews for the Carl Moyer Program, CAP Incentives, the Goods Movement Program, and FARMER Program, CARB offers three

recommendations below. District staff has acknowledged these recommendations, indicating their intent to review and update District Policies and Procedures and file documentation procedures with added detail for clarity and consistency. After discussion of the recommendations at pre-exit and exit meetings, the District plans to respond proactively to our recommendations.

**a. Recommendation 1 for the Carl Moyer Program, CAP Incentives, and FARMER Program**

CARB staff recommends development of additional project file procedures that may ensure file completeness and agreement with reporting databases(s). For 17 project files reviewed, staff found instances of incomplete information that required follow-up. Staff also recommends that equipment photos retained in the project file fully represent and confirm the equipment as being associated with pre- and post-inspection information. For 13 project files reviewed, staff found instances of incomplete photographs that required follow-up.

**b. Recommendation 2 for the Carl Moyer Program and CAP Incentives**

CARB staff recommends that the District review and update its Policies and Procedures Manual language to ensure contractual requirements are consistent throughout, and consistent with the Carl Moyer Program Guidelines and CAP Incentives Guidelines. For 13 of the projects files reviewed, staff found instances of missing information, and limited guidance related to source categories in multiple sections of the Policies and Procedures Manual.

Staff also recommends that the District take steps to ensure Annual Reports from Moyer and CAP Incentives grantees are received on time, appropriately maintained, documented, and followed up for late submittals. For four of the project files reviewed, annual reports were identified as missing by District staff, but no follow-up was documented.

**c. Recommendation 3 for the Carl Moyer Program - Voucher Incentive Program**

For three VIP project files reviewed, staff found instances of missing information. Staff also found that the District Policies and Procedures Manual for VIP offered limited guidance related to implementation and documentation. CARB staff has identified recommendations specific to the VIP Policies and Procedures Manual sections on documentation, audits, training, and outreach. For detailed recommendations related to VIP see Appendix 5.

## 6. Commendable Efforts

A commendable effort is an exceptional practice that goes beyond the basic requirements for implementing an incentive program. Resulting from this review, CARB staff has identified four areas of commendable effort by the District.

### **a. Commendable Efforts for the Carl Moyer Program, CAP Incentives, the Goods Movement Program and FARMER Program**

CARB staff commends the District for its exceptional responsiveness and diligence in responding to requests for additional documentation that was not contained in the file in the midst of re-organization efforts during an unprecedented situation.

CARB staff commends and expresses appreciation to the District for their assistance facilitating seamless and succinct virtual site inspections conducted with the incentive program recipients.

### **b. Commendable Effort for the Carl Moyer Program, and Goods Movement Program**

CARB staff commends the District for the large number of projects and equipment funded for the Carl Moyer Program and Goods Movement Program, demonstrating its commitment to reducing emissions throughout San Diego County.

### **c. Commendable Efforts for FARMER Program**

CARB staff commends the District for providing one-on-one technical assistance to interested applicants – e.g., inviting applicants to come to the district office if assistance is needed during the application process.

## Appendix 1: Carl Moyer Program Tables

**Table 1: Carl Moyer Program Grant Funds<sup>1</sup>**

Fiscal Year	Grant Number	Project	Administration	Total Grant	Matching Funds <sup>2</sup>	Total Carl Moyer Grant and Matching Funds
2011-12	G11-M022	\$3,165,273	\$166,593	\$3,331,866	\$499,780	\$3,831,646
2012-13	G12-M022	\$2,679,666	\$141,035	\$2,820,701	\$423,105	\$3,243,806
2013-14	G13-M022	\$2,825,239	\$148,697	\$2,973,936	\$446,090	\$3,420,026
2014-15	G14-M023	\$2,994,149	\$157,589	\$3,151,738	\$472,767	\$3,624,505
2015-16	G15-M022	\$3,039,423	\$202,628	\$3,242,051	\$486,308	\$3,728,359
2016-17	G16-M021	\$3,334,526	\$222,302	\$3,556,828	\$533,524	\$4,090,352
2017-18	G17-M023	\$3,534,589	\$235,639	\$3,770,228	\$565,534	\$4,335,762
2018-19	G18-M023	\$4,440,954	\$296,064	\$4,737,018	\$710,553	\$5,447,571
Total		\$26,013,819	\$1,570,547	\$27,584,366	\$4,137,661	\$31,722,027

<sup>1</sup> Interest earned by the District is not included in table.

**Table 2: Carl Moyer Program – Multi-District/State Reserve**

Fiscal Year	Grant Number	Project <sup>2</sup>	Administration	Total Grant	Total Carl Moyer Grant and Matching Funds
2011-12	G11-M037	\$353,341	\$18,597	\$371,938	\$371,938
2012-13 <sup>1</sup>	-	\$0	\$0	\$0	\$0
2013-14 <sup>1</sup>	-	\$0	\$0	\$0	\$0
2014-15 <sup>1</sup>	-	\$0	\$0	\$0	\$0
2015-16 <sup>1</sup>	-	\$0	\$0	\$0	\$0
2016-17	G16-M034	\$362,527	\$24,168	\$386,695	\$386,695
2017-18	G17-M040	\$507,131	\$33,809	\$540,940	\$540,940
2018-19	G18-M040	\$587,181	\$39,145	\$626,326	\$626,326
<b>Total</b>		<b>\$1,810,180</b>	<b>\$115,719</b>	<b>\$1,925,899</b>	<b>\$1,925,899</b>

**Table 3A: Summary of Total Projects and Engines  
 Funded By Carl Moyer Program**

Fiscal Years	Total Engines	Total Projects
FY 2011-12 to FY 2013-14 (Details in Table 6A)	123	97
FY 2014-15 to FY 2016-17 (Details in Table 6B)	219	128
FY 2017-18 to FY 2018-19 (Details in Table 6C)	42	36
	<b>384</b>	<b>261</b>

**Table 3B: Carl Moyer Program Engines and Projects for FY 2011-12 to FY 2013-14\***

Fund Source	Source Category	2011-12 Engines	2011-12 Projects	2012-13 Engines	2012-13 Projects	2013-14 Engines	2013-14 Projects
Carl Moyer Program	Marine	13	8	0	0	0	0
	Off-Road Construction	18	9	4	3	5	4
	Off-Road Mobile Agriculture	2	2	1	1	0	0
	Stationary & Portable Agriculture	1	1	0	0	0	0
	On-Road Voucher Incentive Program (VIP)	21	19	9	9	10	9
Multi-District State Reserve	On-Road Voucher Incentive Program (VIP)	11	8	0	0	0	0
Match	\$4-DMV	3	1	1	1	4	4
Match	Other	0	0	11	10	9	8
<b>Total</b>		<b>69</b>	<b>48</b>	<b>26</b>	<b>24</b>	<b>28</b>	<b>25</b>

\*Projects for which funding is split among multiple funding sources are shown in each source, but are counted as one project in the totals. Source of Data is Carl Moyer Program Clean Air Reporting Log (CARL) database 1/11/2021.

**Table 3C: Carl Moyer Program Engines and Projects for FY 2014-15 to FY 2016-17\***

Fund Source	Source Category	2014-15 Engines	2014-15 Projects	2015-16 Engines	2015-16 Projects	2016-17 Engines	2016-17 Projects
Carl Moyer Program	Marine	0	0	0	0	2	1
	Off-Road Construction	10	7	8	4	38	12
	Off-Road Mobile Agriculture	1	1	0	0	2	2
	Stationary & Portable Agriculture	0	0	0	0	0	0
	On-Road Voucher Incentive Program (VIP)	22	19	18	15	14	13
	Locomotives	0	0	0	0	1	1
Multi-District State Reserve	On-Road Heavy-Duty Vehicles	0	0	0	0	2	2
	On-Road Fleet Modernization	0	0	0	0	1	1
Match	\$4-DMV	9	6	24	16	67	28
Match	Other	0	0	0	0	0	0
<b>Total</b>		<b>42</b>	<b>33</b>	<b>50</b>	<b>35</b>	<b>127</b>	<b>60</b>

\*Projects for which funding is split among multiple funding sources are shown in each source, but are counted as one project in the totals. Source of Data is the CARL database 1/11/2021.

**Table 3D: Carl Moyer Program Engines and Projects for FY 2017-18 to FY 2018-19\***

Fund Source	Source Category	2017-18 Engines	2017-18 Projects	2018-19 Engines	2018-19 Projects
Carl Moyer Program	Marine	0	0	N/A	N/A
	Off-Road Construction	1	1	N/A	N/A
	Off-Road Mobile Agriculture	1	1	N/A	N/A
	Stationary & Portable Agriculture	0	0	N/A	N/A
	On-Road Voucher Incentive Program (VIP)	17	13	N/A	N/A
	Locomotive	0	0	N/A	N/A
	Infrastructure	0	1	N/A	N/A
Multi District State Reserve	Marine	0	0	N/A	N/A
	Off-Road Construction	2	2	N/A	N/A
	Off-Road Mobile Agriculture	3	3	N/A	N/A
	Stationary & Portable Agriculture	0	0	N/A	N/A
	On-Road Voucher Incentive Program (VIP)	0	0	N/A	N/A
	Infrastructure	0	0	N/A	N/A
	On-Road Heavy-Duty Vehicles	0	0	N/A	N/A
	On-Road Fleet Modernization	1	1	N/A	N/A
Match	\$4-DMV	17	14	N/A	N/A
Match	Other	0	0	N/A	N/A
<b>Total</b>		<b>42</b>	<b>36</b>		

\*Projects for which funding is split among multiple funding sources are shown in each source, but are counted as one project in the totals. Source of data is the CARL database 1/11/2021.



**Table 4: Carl Moyer Program Projects Reviewed**

Identification Number	Fiscal Year	Project Number	Grantee	Source Category	Project Inspected by CARB (Yes/No )
1	2011-2012	1XPFD99XITN391409	Joseph Trucking	On-Road VIP Heavy-Duty Vehicle	No
2	2012-2013	Dick Miller Inc. DM2014, DN14	Dick Miller Inc.	Off-Road Equipment Construction - Tractor Loader	Yes
3	2013-2014	CMF16-102 287C	Frank Konym Dairy	Off-Road Equipment Mobile Agriculture	No
4	2014-2015	APCD2015-CARL-0003	Rendt 988B	Off-Road Equipment Construction - Loader	No
5	2014-2015	APCD2018-CARL00021	M/V Sauerfish	Marine – Vessel Repower	Yes
6	2015-2016	APCD2016-CARL-0010	KTA-CMYR18	Off-Road Equipment Construction - Excavator	No
7	2016-2017	APCD2017MRPW-0003	Premier	Marine – Vessel - CH Repower	No
8	2016-2017	556478	Alpine School District	On-Road Heavy-Duty Vehicle – School Bus	No
9	2017-2018	1FVACWCS16HW239 59	Precision Towing Freightliner	On-Road VIP Heavy-Duty Vehicle	Yes
10	2016-2017	1FVACWDCX5HU328 37	La Movida Trucking	On-Road VIP Heavy-Duty Vehicle	No

## Appendix 2: CAP Incentives Tables

**Table 1 CAP Incentives<sup>1</sup>**

Fiscal Year	Grant Number	Project <sup>2</sup>	Implementation	Total Grant
2017-18	G17-MCAP-05	\$2,812,500	\$187,500	\$3,000,000
2018-19	G18-MCAP-04	\$17,723,438	\$1,181,563	\$18,905,000
<b>Total</b>		<b>\$20,535,938</b>	<b>\$1,369,063</b>	<b>\$21,905,000</b>

<sup>1</sup> Interest earned by the District is not included in table.

**Table 2A: Total Projects and Engines Funded By CAP Incentives**

Fiscal Years	Total Engines	Total Projects
FY 2017-18 (Details in Table 7a)	22	5
FY 2018-19 (Details in Table 7a)	12	8
<b>Total</b>	<b>34</b>	<b>13</b>

**Table 2B: CAP Incentives Engines and Projects for FY 2017-18 to 2018-19\***

Fund Source	Source Category	2017-18 Engines	2017-18 Projects	2018-19 Engines	2018-19 Projects
CAP Incentives	Marine	8	1	3	1
	Off-Road Construction	9	3	3	2
	Off-Road Agriculture	0	0	1	1
	Off-Road Other	5	1	0	0
	On-Road Heavy Duty	0	0	1	1
	On-Road Heavy Duty-School Bus	0	0	2	1
	Infrastructure	0	0	2	2
<b>Total</b>		<b>22</b>	<b>5</b>	<b>12</b>	<b>8</b>

\*Projects for which funding is split among multiple sources are shown in each source, but are counted as one project in the totals. Source of data is the CARL database 1/11/2021.

**Table 3: CAP Incentives Projects Reviewed**

Identification Number	Fiscal Year	Project Number	Grantee	Source Category	Project Inspected by CARB (Yes/No)
1	2017-2018	APCD2018-CARL-0022_EJ	Pacific Tugboat Y20 ERP EJ	Marine - Repower	No
2	2017-2018	APCD2018-CARL-0042-CAP	Marine Group Boat Works CAP	Off-Road - Other	Yes
3	2017-2018	APCD2018-CARL-0085	TC Construction Co Yr 20 - CAP	Off-Road - Construction	No

## Appendix 3: Goods Movement Program Tables

**Table 1: Goods Movement Program Grants<sup>1</sup>**

Fiscal Year	Grant Number	Project	Administration	Total Grant
2008-09	G08GMST2	\$6,264,095	\$313,205	\$6,577,300
2008-09	G08GMSH1	\$110,852	\$4,434	\$115,286
2011-12	G11GMST1	\$4,570,918	\$228,546	\$4,799,464
2013-14	G13GMST1	\$9,172,321	\$458,615	\$9,630,936
2013-14	G13GMSH1	\$173,197	\$6,928	\$180,125
2014-15	G14GMST1	\$10,375,807	\$518,791	\$10,894,598
2014-15	G14GMSH1	\$1,080,794	\$43,231	\$1,124,025
<b>Total</b>		<b>\$31,747,984</b>	<b>\$1,573,750</b>	<b>\$33,321,734</b>

<sup>1</sup> Interest earned by the District is not included in table.

**Table 2: Goods Movement Program Projects Funded**

Grant Number / Funding category	Replacement	Retrofit	Engine Repower	Total Projects
G08GMST2 & G11GMST1 <sup>1</sup> Heavy Duty Trucks	222	70	0	272
G08GMSH1 Commercial Harbor Craft	0	0	1	1
13GMS01 <sup>2</sup> Heavy Duty Trucks	102	0	0	102
13GMS01 <sup>2</sup> Commercial Harbor Craft	0	0	2	2
GMB14-S1 <sup>1,2,3,4</sup> Heavy Duty Trucks	50	0	0	50
GMB14-S1 <sup>3</sup> Commercial Harbor Craft	0	0	6	6
GMB14-S1 <sup>3</sup> Locomotives	0	0	0	0
GMB14-S1 <sup>3</sup> Transport Refrigeration Units	0	0	0	0
GMB14-S1 <sup>3</sup> Ships at Berth & Cargo Handling Equipment	0	0	0	0
<b>Total</b>	<b>374</b>	<b>70</b>	<b>9</b>	<b>433</b>

<sup>1</sup>CARB combined the FY 2008-09 and FY 2011-12 grants for the truck projects because these grants covered projects from the same statewide solicitation and the same ranked lists, although the funds are from different fiscal year appropriations. Additionally, the information for the FY 2014-15 truck projects include funds reallocated from the FY 2013-14 grant that were not utilized due to project fallout.

<sup>2</sup>Grant 13GMS01 includes two source categories: Trucks and Commercial Harbor Craft.

<sup>3</sup>Grant GMB14-S1 includes five source categories: Trucks, Locomotives, TRUs, and Ships a Berth/CHE, Commercial Harbor Craft.

<sup>4</sup>District Report shows 104 trucks under contract.

**Table 3: Goods Movement Program Projects Reviewed**

Identification Number	Fiscal Year	Project Number	Grantee	Project Type	Project Inspected by ARB (Yes/No)
1	2008-2009/ 2011-2012	G08GMST2 _00262	Black Eagle Trucking, LLC (Black Eagle Trucking, Inc.)	Replacement	No
2	2008-2009/ 2011-2012	G08GMST2 _00040	Hanson Aggregates	Retrofit Level 3 PM	No
3	2008-2009/ 2011-2012	G08GMST2 _00372	T C Construction Co. Inc.	Replacement	No
4	2008-2009/ 2011-2012	G08GMSH1 _00002	The Jankovich Company	Engine Repower	No
5	2013-2014	G13GMST1 _00254	Fugly Trucking	Replacement	No
6	2013-2014	G13GMST1 _00088	Crown Xpress Transport	Replacement	No
7	2013-2014	G13GMST1 _00288	Dave Horner Trucking	Replacement	No
8	2013-2014	G13GMSH1 _00002	Zachary Roach	Engine Repower	Yes
9	2014-2015	G14GMST1 _00006	Navarro Trucking	Replacement	No
10	2014-2015	G14GMST1 _00132	Superior Ready Mix	Replacement	No
11	2014-2015	G14GMST1 _00166	Hollandia Dairy, Inc.	Replacement	Yes
12	2014-2015	G14GMSH1 _00002	Crowley Marine Services	Engine Repower	No

## Appendix 4: FARMER Program Tables

**Table 1: FARMER Program Grant Funds<sup>1</sup>**

Fiscal Year	Grant Number	Project Funds	Admin Funds	Total Grant
2017-18	G17-AGIP-11	\$1,190,344	\$79,356	\$1,269,700
2018-19	G18-AGIP-10	\$1,149,626	\$76,642	\$1,226,268
<b>Total</b>		<b>\$2,339,970</b>	<b>\$155,998</b>	<b>\$2,495,968</b>

<sup>1</sup> Interest earned by the District is not included in table.

**Table 2: FARMER Program Projects Funded**

Grant Name	Project Type	Total Engines	Total Projects
G17-AGIP-11	Off-Road Agricultural Equipment	26	26
G18-AGIP-10	Off-Road Agricultural Equipment	28	28
	Zero-Emission UTVs	4	4
<b>Total</b>		<b>58</b>	<b>58</b>

**Table 3. FARMER Program Projects Reviewed**

Identification Number	Fiscal Year	District Supplied Project ID	Project Category	Project Inspected by CARB (Yes/No)
1	2017-2018	APCD2018-ORPL-0110 - TY	Off-Road Agricultural Equipment	No
2	2017-2018	APCD2018-ORPL-0121 - TY	Off-Road Agricultural Equipment	No
3	2017-2018	APCD2018-ORPL-0200 - Fairfield	Off-Road Agricultural Equipment	Yes
4	2017-2018	APCD2018-ORPL-0051 - Pardee	Off-Road Agricultural Equipment	Yes



## Appendix 5: Specific Recommendations for the Voucher Incentive Program (VIP), Carl Moyer Program

### A. Carl Moyer VIP Implementation Recommendations

CARB staff recommends the following to San Diego APCD with regard to implementation of the VIP. Implementation of these recommendations will help ensure the District has a successful VIP Program.

1. Applications that are incomplete, illegible, with unclear or missing documentation should be rejected by the air district immediately and the applicant should be notified. At their discretion, air districts may request missing, unclear documentation or information from applicants before issuing rejections. When there is discrepancy between the DMV registration documentation and the Certificate of Title with the lien holder on the registration documentation, districts may contact the DMV for further clarification and confirmation of the lien holder release from title. For more information, please see the links provided below:
  - a. <https://www.dmv.ca.gov/portal/vehicle-registration/titles/notice-of-transfer-and-release-of-liability-nrl-faqs/>
  - b. <https://www.dmv.ca.gov/portal/uploads/2020/06/reg166.pdf>
    - i. *Carl Moyer 2017 VIP Guidelines Reference: Section C.5.(W), Section C.5.(X)*
2. In cases where the District is unable to obtain a full 24-month record of previous mileage or fuel use for the vehicle being replaced, District staff is advised to reach out to their CARB liaison or CARB VIP staff for further assistance. Consideration of two 12-month mileage or fuel usage periods that overlap within the 24 months does not meet the minimum annual usage the VIP guidelines require (Appendix O). For more information please see the information below:
  - i. *Carl Moyer 2017 VIP Guidelines Reference: Section C.2.(A)(2)*
3. Recently during closure of DMV offices, DMV's registration renewal process has experienced instances where full payment of the registration fees may not reflect coverage during the period of suspension. Payment does not result in retroactive coverage.
  - i. *Carl Moyer 2017 VIP Guidelines Reference: Not applicable*

## B. VIP Recommendations for the District's Carl Moyer Policies and Procedures Manual

Below is a list of CARB's recommendations for San Diego APCD in regards to its VIP Policies and Procedures Manual. These recommendations were identified to help ensure the district has a successful VIP Program.

### 1. Modify the Documentation Section to include:

- a. Description of documentation or forms of evidence that payment has been included in a project file. See Carl Moyer 2017 VIP Guidelines Reference Section C.5.(AA).
- b. If there are deviations from the program requirements, a description of what procedures and documentation are included in the file (e.g., reaching out to CARB staff for further clarification and/or guidance, keeping email correspondence demonstrating resolutions to matters raised, documenting in a memo). See Carl Moyer 2017 VIP Guidelines Reference Section C.5.(HH).
- c. The District program will ensure that voucher recipients are documenting usage requirements in Annual Reports. See Carl Moyer 2017 VIP Guidelines Reference Section C.5.(FF).
- d. The District's documentation requirements will ensure that the files contain dealership program requirements, including:
  - i. The air district ensures participating dealership works with grantee so that the lower price paid is shown in payment finance documentation. See Carl Moyer 2017 VIP Guidelines Reference Section C.6.(A)(5).
  - ii. That the dealer may not have the applicant pay, even at the applicant's request, the full purchase price of the replacement vehicle and later reimburse the voucher amount to the applicant.
  - iii. Description of documentation that will be kept in the file to demonstrate the dealership has met the program requirements, including but not limited to, ensuring the replacement title for the replacement vehicle is registered to the participant in California. See Carl Moyer 2017 VIP Guidelines Reference Section C.6.(A)(7).
- e. Description of the acceptable dealer reimbursement finance documentation, such as (See Carl Moyer 2017 VIP Guidelines Reference Section C.5.(J)):
  - i. Finance documentation signed by the applicant, the applicant and dealership, or all parties. See Carl Moyer 2017 VIP Guidelines Reference Section C.6.(C).

- ii. Acceptable copy of the title of the existing vehicle signed and dated by the applicant. Describe what documentation is accepted if the applicant signs the release of the Certificate of Title incorrectly. See Carl Moyer 2017 VIP Guidelines Reference Section C.6.(C)(8).
  - iii. District clarification of what is acceptable documentation to demonstrate the baseline vehicle meets operational requirements to program eligible and SIP creditable. See Carl Moyer 2017 VIP Guidelines Reference Appendix H.
  - iv. Project's finance documentation, including proof of payment (ensure participating dealership works with grantee so that the lower price paid), and DMV registration documentation (e.g. Certificate of Title or Customer Receipt Copy of the Registration Information Request). See Carl Moyer 2017 VIP Guidelines Reference Appendix I.
2. Modify the Audits Section, describe the procedure for performing audits on inspections performed by dealerships within the program. For example:
  - a. Describe your audit for each type of inspection procedure, i.e., who conducts it, how it is conducted, what is reviewed/inspected. For example, was a full inspection performed with the dealership during the audit of the inspection? See Carl Moyer 2017 VIP Guidelines Reference Section C.5.(FF).
  - b. For applicants that do not return project annual usage reports, air districts will need to notify CARB on a semi-annual basis. See Carl Moyer 2017 VIP Guidelines Reference Section C.5.(FF).
  - c. When auditing five percent of each type of inspection with the participating dealerships that perform the pre-inspection for projects, refer to 2017 VIP Guidelines. See Carl Moyer 2017 Guidelines Reference Section C.5.(II) Table 2 Air District Audit Requirements.
3. Modify the Training Sections (Dealership and Retrofit Installer, and Dismantler) to include the following:
  - a. How often and when training is provided. See Carl Moyer 2017 Guidelines Reference Section C.5.(L).
  - b. Procedures identifying and addressing deviations or program requirements that have not been met, and new VIP Guidelines funding tables, potential Guidelines clarifications, project's finance documentation, and latest version of VIP

application forms annually provided by the air district. See Carl Moyer 2017 Guidelines Reference Section C.5.(N).

4. Modify the Outreach Section to include:
  - a. VIP Guidelines and funding table updates.
  - b. The schedule for updates and information posted to the air district's website. See Carl Moyer 2017 Guidelines Reference Section C.5.(M).

## Appendix 6: References

- State requirements including those under Health and Safety Code sections as follows:
  - 44275 through 44299.2 – Carl Moyer Program
  - 44391.4 – Community Air Protection Program
  - 39625 through 39627.5 – Goods Movement Program
  - 39013, 44270.3, 44271, 44272, 44274 – FARMER Program
- Governor’s Executive Order S-02-07
- Carl Moyer Program 2011 Guidelines (December 31, 2014), California Air Resources Board  
<https://ww2.arb.ca.gov/guidelines-carl-moyer>
- Carl Moyer Program 2017 Guidelines Volume I and Volume II (April 27, 2017), California Air Resources Board  
<https://ww2.arb.ca.gov/guidelines-carl-moyer>
- Carl Moyer advisories, Mail-outs, and other written communications
- Carl Moyer Program advisories, Mail-outs, and other written communications
- Carl Moyer and CAP Grant Award and Authorization requirements
- Community Air Protection Incentives Guidelines (2019) (website)  
<https://ww2.arb.ca.gov/resources/documents/community-air-protection-incentives-guidelines>
- Funding Agricultural Replacement Measures for Emission Reductions Program Guidelines (March 23, 2018), California Air Resources Board  
<https://ww2.arb.ca.gov/resources/documents/farmer-program-guidelines>
- Executive Office Memo: FARMER Program – (September 2018) Additional Project Categories, California Air Resources Board  
<https://ww2.arb.ca.gov/resources/documents/farmer-program-september-2018-additional-project-categories>
- Executive Office Memo: FARMER Program – (October 2019) Additional Project Categories, California Air Resources Board  
<https://ww2.arb.ca.gov/resources/documents/farmer-program-october-2019-additional-project-categories>
- Goods Movement Program Guidelines (2015) (website)  
<https://ww2.arb.ca.gov/resources/documents/proposition-1b-guidelines>
- Goods Movement Program Local Agency Grant Agreements
- Goods Movement Program CARB Resolutions and Executive Orders
- Goods Movement Program Staff Reports

District policies and procedures and forms, including contracts with the engine owner/grant recipients

## Appendix 7: Resources

1. California Air Resources Board Carl Moyer Program website  
<https://ww2.CARB.ca.gov/our-work/programs/carl-moyer-memorial-air-quality-standards-attainment-program>
2. California Air Resources Board Community Air Protection Incentives Website  
<https://ww2.CARB.ca.gov/our-work/programs/community-air-protection-incentives>
3. California Air Resources Board FARMER Program website  
<https://ww2.arb.ca.gov/our-work/programs/farmer-program>
4. California Air Resources Board Goods Movement Emissions Reduction Program website, <https://ww2.arb.ca.gov/our-work/programs/proposition-1b-goods-movement-emission-reduction-program>
5. California Air Resources Board Incentives Program Audit and Program Reviews website (includes previous reports and Policies and Procedures)
6. <https://ww2.arb.ca.gov/carl-moyer-program-incentives-program-oversight>
7. Carl Moyer Program 2011 Guidelines (April 21, 2008), California Air Resources Board  
<https://ww2.arb.ca.gov/guidelines-carl-moyer>
8. Carl Moyer Program 2017 Guidelines (April 27, 2017), California Air Resources Board  
<https://ww2.arb.ca.gov/guidelines-carl-moyer>
9. Community Air Protection Incentives 2019 Guidelines (October 14, 2020), California Air Resources Board  
<https://ww2.arb.ca.gov/resources/documents/community-air-protection-incentives-guidelines>
10. Funding Agricultural Replacement Measures for Emission Reductions Program Guidelines (March 23, 2018), California Air Resources Board  
<https://ww2.arb.ca.gov/resources/documents/farmer-program-guidelines>
11. Executive Office Memo: FARMER Program – (September 2018) Additional Project Categories, California Air Resources Board  
<https://ww2.arb.ca.gov/resources/documents/farmer-program-september-2018-additional-project-categories>
12. Executive Office Memo: FARMER Program – (October 2019) Additional Project Categories, California Air Resources Board  
<https://ww2.arb.ca.gov/resources/documents/farmer-program-october-2019-additional-project-categories>
13. Funding Agricultural Replacement Measures for Emission Reductions Program Guidelines Quantification Methodology, Priority Population Criteria Tables, and Calculator Reporting Tool  
<https://ww2.arb.ca.gov/resources/documents/ci-quantification-benefits-and-reporting-materials> FARMER Guidelines (March 18, 2020), Air Resources Board
14. Proposition 1B: Goods Movement Emission Reduction Program, Final 2008 Guidelines for Implementation (February 28, 2008)  
<https://ww2.arb.ca.gov/resources/documents/proposition-1b-guidelines>

15. Proposition 1B: Goods Movement Emission Reduction Program, Final 2010 Guidelines for Implementation (March 2010)

<https://ww2.arb.ca.gov/resources/documents/proposition-1b-guidelines>

16. Governor's Executive Order S-02-07