Air Pollution Reduction Incentive Programs
Program Review Report

San Joaquin Valley Air Pollution Control District Fiscal Years 2010-11¹ through 2018-19

State of California
Air Resources Board
March 17, 2023

¹ The scope for the Goods Movement Emission Reduction Program also included FY 2008-09.

Table of Contents

1. Introduction	3
2. Overall Assessment	4
3. Incentive Program Review	4
a. Carl Moyer Memorial Air Quality Standards Attainment Program	4
b. Community Air Protection Incentives	5
c. Goods Movement Emission Reduction Program	6
d. Funding Agricultural Replacement Measures for Emission Reductions Program	6
e. Low Carbon Transportation Investments Program	7
f. School Bus Programs – Lower Emission School Bus Program and Diesel Emissions Reduction Act	7
g. Enhanced Fleet Modernization Program and Clean Cars 4 All Program	7
4. Findings and Recommendations	8
a. Findings	8
b. Recommendations	8
5. Commendable Efforts	11
Appendix 1: Carl Moyer Memorial Air Quality Standards Attainment Program	12
Appendix 2: Community Air Protection Incentives	18
Appendix 3: Goods Movement Emission Reduction Program	
Appendix 4: Funding Agricultural Replacement Measures for Emission Reductions Prog	ram
Appendix 5: Low Carbon Transportation Program	29
Appendix 6: School Bus Program	30
Appendix 7: Enhanced Fleet Modernization Program and Clean Cars 4 All Program	33
Appendix 8: References	36
Appendix 9: Resources	38

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 Joaquin Valley Air Pollution Control District's (San Joaquin Valley APCD or District).

CARB incentive program review 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 delivery of this report 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 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 San Joaquin Valley APCD is one of California's largest local air districts and is responsible for air quality in the San Joaquin Valley Air Basin. The District implements air pollution reduction incentive projects in eight counties: San Joaquin, Stanislaus, Merced, Madera, Tulare, Kings, Fresno, and part of Kern County. The District encompasses approximately 25,000 square miles and is home to over 4.2 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 Joaquin Valley APCD program review in September 2021 and completed it in December 2022. CARB staff reviewed the District implementation of the following incentive programs:

- 1. Carl Moyer Memorial Air Quality Standards Attainment Program
- 2. Community Air Protection Incentives
- 3. Goods Movement Emission Reduction Program
- 4. Funding Agricultural Replacement Measures for Emission Reductions Program
- 5. Low Carbon Transportation Program
- 6. Lower Emission School Bus Program
- 7. Diesel Emission Reduction Act
- 8. Enhanced Fleet Modernization Program
- 9. Clean Cars 4 All Program

This review was conducted in accordance with CARB's Policies and Procedures (P&P) for review of incentive programs, which are viewable at the following CARB website: https://ww2.arb.ca.gov/carl-moyer-program-incentives-program-oversight.

CARB's program review was supplemented by a fiscal review conducted by the California Department of Finance beginning September 2021 and concluding with exit meeting in June 2022. Department of Finance's final report, issued on July 20, 2022, concluded that the incentive programs' revenues, expenditures, and resulting balances were compliant with applicable grant agreements, guidelines, and statutes. A link to the Department of Finance's final report is posted on the CARB Incentive Program Audits and Program Reviews website at https://ww2.arb.ca.gov/carl-moyer-program-incentives-program-oversight.

2. Overall Assessment

CARB's program review determined that the nine District incentive programs reviewed are achieving their emissions reduction and program objectives in an effective and efficient manner. CARB identified no findings but gave four recommendations and noted two commendable efforts. Detailed information is in Section 4, Findings and Recommendations, of this report.

3. Incentive Program Review

This program review covered FY 2010-11 through FY 2018-19, except for Goods Movement Emission Reduction Program that also included FY 2008-09. CARB selected 87 projects and conducted 10 inspections (8 virtual and 2 on-site) to review the 9 incentive programs. 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. The project selection was based on the following criteria:

- Funding years within the scope,
- Funding source type(s), and
- Source category types under incentive program.

a. Carl Moyer Memorial Air Quality Standards Attainment Program

The Carl Moyer Memorial Air Quality Standards Attainment Program (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 includes tire replacement and vehicle registration (smog abatement) fees. San Joaquin Valley APCD contributes match funds as required by the Carl Moyer Program.

The review of the Carl Moyer Program, covered grant awards for FY 2010-11 through FY 2018-19, totaling \$94,468,286 in funding for 1,203 projects and 1,304 engines. CARB selected 20 projects for file review, 4 of which were inspected. Project categories within the scope of review included off-road construction, mobile and stationary agriculture, stationary agricultural pumps, on-road heavy duty trucks, school bus projects, the on-road Voucher Incentive Program, and locomotive projects.

The tables in Appendix 1 provide an overview of the Carl Moyer Program funds received by the District for FY 2010-11 through FY 2018-19.

b. Community Air Protection Incentives

Community Air Protection Incentives (CAP incentives) facilitate emissions reductions through clean air projects in disadvantaged and low-income communities heavily impacted by air pollution. Funding for CAP incentives comes from the Greenhouse Gas Reduction Fund (GGRF), with spending in accordance with the goals of Assembly Bill (AB) 617 (C. Garcia, Chapter 136, Statutes of 2017) and requirements of California Climate Investments. CAP incentives fund emission reducing mobile source vehicles 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 \$143,680,000 in grant awards for FYs 2017-18 through 2018-19, which funded 925 projects and 915 engines. CARB selected 13 projects for file review and inspected 2 of those. Project categories within the review scope included off-road construction and mobile agriculture, stationary and portable agricultural engines, on-road heavy-duty school bus, locomotive, infrastructure, and community-identified projects.

Twenty-three percent of the project funds under contract with air district grantees, were allocated to fund zero emission on-road engine projects, off-road engine projects, and infrastructure projects.

CAP incentive funding can be spent on Proposition 1B (Prop 1B) projects. For FY 2017-18, the District funded eight on-road Prop 1B projects.

Tables in Appendix 2 provide an overview of the CAP Incentive funds.

c. Goods Movement Emission Reduction Program

Goods Movement Emission Reduction Program (GMERP) provides grants to owners of equipment used in freight movement to fund the purchase of cleaner technologies that reduce air pollution emissions from freight movement along California's trade corridors. GMERP is funded by bonds authorized by Prop 1B and is implemented by local agencies that apply to CARB for grants to fund specific project categories.

The District may fund 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.

For GMERP, the scope of the review included FY 2008-09, FY 2011-12, FY 2013-14, and FY 2014-15. The grants for FY 2008-09 and FY 2011-2012 were combined for truck projects, hence the change in scope from the overall program review. The grants in the scope totaled \$119,633,099 and funded 2,143 projects along California's trade corridors. CARB selected 31 projects for file review and further inspected one of these.

The scope of the review for GMERP are displayed in the Tables in Appendix 3.

d. Funding Agricultural Replacement Measures for Emission Reductions Program

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

The scope of the review for FARMER, covered \$212,304,000 awarded to grantees in FYs 2017-18 and 2018-19. There were 5,262 projects funded in the following categories: off-road agricultural equipment, zero-emission agricultural utility terrain vehicles (UTV), irrigation pumps, on-road heavy-duty agricultural trucks, and

agricultural equipment trade-up projects per FARMER Program Guidelines. CARB selected ten projects for file review and inspected two of these.

Tables in Appendix 4 detail the scope of the review for FARMER.

e. Low Carbon Transportation Investments Program

Low Carbon Transportation Investments Program (LCT) 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 is supported by Cap-and-Trade auction proceeds.

For LCT, CARB selected two selected projects for FYs 2016-17 totaling \$9,375,515 in grant funding. None of the projects were inspected.

The tables in Appendix 5 detail funds received and projects that were funded.

f. School Bus Programs – Lower Emission School Bus Program and Diesel Emissions Reduction Act

The District is the statewide administrator for the school bus program on behalf of CARB, using Lower Emission School Bus Program (LESBP) and Diesel Emissions Reduction Act (DERA) allocations to fund projects prioritizing school districts in small and medium air districts.

LESBP and DERA projects help meet the school bus program's goals to reduce California school children's exposure to diesel exhaust. During the scope of the review, FYs 2010-11 through 2018-19, the District accepted State and Federal funds from eight grants totaling \$7,277,826 to implement school bus clean-up projects statewide. This included funding 24 school bus replacements and 180 school bus retrofits. CARB selected 12 projects for file review with one project was inspected.

The tables in Appendix 6 detail funds received and projects that were funded.

g. Enhanced Fleet Modernization Program and Clean Cars 4 All Program

Enhanced Fleet Modernization Program (EFMP) and Clean Cars 4 All Program (CC4A) provides an incentive in the form of a rebate towards the purchase or lease of an advanced technology vehicle or Alternative Mobility Option. Participants of the program must be income-qualified and have an eligible vehicle to scrap. While EFMP is funded through the \$1 vehicle registration fees from AB 118 (Nunez, Chapter 750, Statues of 2007), CC4A is primarily funded through the Greenhouse Gas Reduction Fund. While CARB develops implementation guidelines and distributes funding and

conducts oversight, the District is responsible for the on-the-ground implementation, community outreach, and other day-to-day activities of the programs.

For FY 2014-15 through FY 2018-19, the District funded 3,751 projects with \$36,540,000 in grant funds. CARB selected 30 projects for file review. None of the projects were selected.

The tables in Appendix 7 detail funds received and projects that were funded.

4. Findings and Recommendations

CARB staff may offer "Findings" when district practices are found to be inconsistent with one or more requirements of statute, State Guidelines, or District Policies and Procedures. "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.

a. Findings

CARB staff identified no findings for the District's implementation of incentive programs from either file review or project inspections.

b. Recommendations

CARB staff offers four recommendations for the District's implementation of incentive programs.

1. Improve Documentation

- Applications and Contracts (CAP Incentives, LESBP/DERA, EFMP/CC4A, Carl Moyer Program) – Ensure both applications and contracts are signed and dated by all parties. Create a "final application" that is a combination of the original copy and working copy. Contract amendments are accurate, in compliance with incentive program Guidelines, and amended prior to deadlines.
- Project Photos (CAP Incentives, LESBP/DERA, GMERP, Carl Moyer Program) – Revise district P&P inspection photograph language to include that photographs be labelled for added clarity, and sufficient number of photographs to document project.

- Project File Completeness (CAP Incentives, LESBP/DERA, EFMP/CC4A, FARMER, GMERP, Carl Moyer Program) – Ensure all supporting documents are in the project file, and they are filed properly. The district should update their Moyer Voucher Incentive Program (VIP) P&Ps to encourage project file completeness.
- Guidance Documents (CAP Incentives, GMERP, Carl Moyer Program, LCT) Guidance document requirements are met prior to funding projects and throughout the project life. Guidance documents include, but are not limited to grant agreements, proposed scope of work, branding and logo instructions, and all incentive program Guideline requirements that the project falls under. Ensure that the District's Moyer Program P&Ps are aligned with the Moyer Guidelines and are followed (e.g., Nima Farms line extension). When drafting the CAP incentive P&Ps, ensure that the District details the process for project plan revisions, for example that the district follow the revised project plan at the time of voucher execution (e.g., Lawn and Garden project plan).
- 30-month Ownership Checks (EFMP/CC4A) CARB
 acknowledges that the District has stated in their end of the year
 reports that the 30-month ownership check is difficult and
 labor-intensive process. CARB recommends that the District
 continues ongoing conversations with program staff and
 collaborates on all proposed methodology to be placed in the
 District's future implementation plans by a mutually agreed upon
 date.
- 12, 24, 30-month survey (EFMP/CC4A) CARB acknowledges that the District has stated that 12, 24, 30-month survey results are difficult and that the District is reviewing methods to increase participation. CARB recommends the District consult with other Districts implementing the CC4A program and continue to collaborate with CARB to determine best practices for a proposed methodology to increase survey responses. The methodology needs to be included in all District's future implementation plans

and quarterly reports as per the Grant Agreements to ensure that program goals are met.

- 2. Usage Reports (CAP Incentives, Carl Moyer Program) Improve Usage Report collection process where shortfalls have been found (i.e., deadlines, low usage) and update the district's P&P accordingly.
- 3. Match Funds (LCT) Match funds should be spent concurrently and reported regularly with grant funds to avoid potential shortfall at end of project.
- 4. Regular Review of Contractors (EFMP/CC4A) CARB recommends that the District implement regular and continuous review of contractors. The District should define the process and any documentation requirements in their implementation plan, to be amended prior to executing FY 2022-23 EFMP and CC4A grants.

Contractors to be included in this review are identified as the following:

- Valley CAN
- Dealership partners
- Non-District entities that provide services to the District's CC4A and EFMP Programs

The list above is not exhaustive. Should the District add additional partners and contractors not identified in the list above to successfully service and implement both or either the CC4A and EFMP, the District must also conduct and document their review and findings. The District must conduct reviews in the frequency as prescribed by the Grant Agreements and share the results of their review of their contractors in their quarterly reports and any project files, as appropriate. The District should collaborate with CARB so that the review process is defined in accordance with CARB guidelines and regulation.

Documentation of the review should include, but is not limited to:

- Checklists
- Policies and Procedures
- Training Materials
- Internal audit forms

Other documents that the District deems appropriate and are CARB approved via the implementation plan. CARB will reassess as per the Grant Agreements and

implementation plans to ensure that program goals are being met. It is also recommended that the District continue to collaborate with CARB to determine best practices and expectations.

5. 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 two areas of commendable efforts by the District.

Form Templates (All incentive programs)

CARB staff commends the District for their form templates that were easy to navigate, review, and locate information, for example, several of the programs commented on how the inspection form was easy to follow.

Program Management (LESBP/DERA)

CARB staff commends the District for successfully managing and dispersing funds for the statewide LESBP and DERA program. The memos and emails in project file recorded file discrepancies and communications.

Appendix 1: Carl Moyer Memorial Air Quality Standards Attainment (Carl Moyer) Program

Table 1: Carl Moyer Program Grant Funds¹

Fiscal Year	Grant Number	Project	Administration	Total Grant	Matching Funds ²	Total Carl Moyer Grant and Matching Funds
2010-11	G10- M024	\$7,155,859	\$376,624	\$7,532,483	\$1,129,872	\$8,662,355
2011-12	G11- M023	\$7,747,668	\$407,772	\$8,155,440	\$1,223,316	\$9,257,657
2012-13	G12- M023	\$7,171,687	\$377,457	\$7,549,144	\$1,132,372	\$8,681,516
2013-14	G13- M023	\$7,521,091	\$395,847	\$7,916,938	\$1,187,541	\$9,104,479
2014-15	G14- M024	\$7,993,008	\$420,685	\$8,413,693	\$1,262,054	\$9,675,747
2015-16	G15- M023	\$7,941,634	\$529,442	\$8,471,076	\$1,270,661	\$9,741,737
2016-17	G16- M022	\$7,972,319	\$531,488	\$8,503,807	\$1,275,571	\$9,779,378
2017-18	G17- M024	\$8,113,417	\$540,895	\$8,654,312	\$1,298,147	\$9,952,459
2018-19	G18- M024	\$10,584,365	\$720,481	\$11,304,846	\$1,695,727	\$13,000,568
Total		\$72,201,048	\$4,300,691	\$76,501,739	\$11,475,261	\$87,977,000

¹ Interest earned by the District is not included in table.

² The District used \$2 Department of Motor Vehicle fees (DMV) provided by AB923 (Sher, Statutes of 1990) and a \$4(DMV) provided by AB2522 (to fund projects (match and non-match) during the time period covered by the review.

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

Fiscal Year	Grant Number	Project	Administration	Total Carl Moyer Multi-District/State Reserve Funds
2010-11	G10- M037	\$1,107,958	\$58,449	\$1,166,407
2011-12	G11- M038	\$104,7007	\$55,210	\$110,227
2012-13	G12- M043	\$136,250	\$7,171	\$143,421
2013-14	G13- M043	\$190,000	\$10,000	\$200,000
2014-15	G14- M038	\$161,187	\$17,910	\$179,097
2016-17	G16- M035	\$867.676	\$57,845	\$925,521
2017-18	G17- M041	\$1,205,465	\$80,364	\$1,285,829
2018-19	G18- M041	\$1,395,744.21	\$93,049.61	\$1,488,793.82
Total		\$6,111,287.21	\$379,998.61	\$6,491,285.82

Table 3: Carl Moyer Program Engines and Projects for FY 2010-11 to FY 2018-19*

F' ad Varia	Moyer		Multi-District		Match		T. 1. 14	T.,,., +
Fiscal Years	Engines	Projects	Engines	Projects	Engines	Projects	Total* Engines	Total* Projects
FY 2010-11	244	211	33	33	8	1	312	265
FY 2011-12	70	70	34	34	5	5	141	129
FY 2012-13	144	130	3	3	8	8	188	171
FY 2013-14	95	95	3	3	3	3	128	127
FY 2014-15	100	93	3	3	9	9	122	114
FY 2015-16	78	78	0	0	9	9	96	91
FY 2016-17	76	76	8	7	3	3	108	103
FY 2017-18	78	77	14	13	1	1	95	92
FY 2018-19	102	100	2	2	7	7	114	111
Total Engines and Projects	987	930	100	98	53	46	1,304	1,203

^{*}A projects where funding is split among multiple funding sources are shown in each source, but are counted as one project in the totals. Project and Engine totals include funding sources not included in the table. Source of Data is Carl Moyer Program Clean Air Reporting Log (CARL) database 12/11/2021.

Table 4: Carl Moyer Program Projects Reviewed

	Fiscal Year	Project Number	Grantee	Source Category	Project Inspected by CARB (Yes/No)
1	2010-2011	C-8371	John Romani & Sons	Off-Road Heavy-Duty Vehicle	No
2	2010-2011	C-3879	Nima Farms	Stationary Agriculture Portable Equipment	No
3	2011-2012	N-1112 #552360 SW-DESL	Central California Traction Company	Locomotive Switcher	Yes
4	2011-2012	N-1112 #552362 SW-DESL	Central California Traction Company	Locomotive Switcher	Yes
5	2011-2012	#2HSCEAMR71 C000219	Jorge Antonio Reyes	On-Road VIP Heavy-Duty Vehicle	No
6	2012-2013	C-29630 #1XKWDBOXIW R783040	Elizabeth Hendrick	On-Road VIP Heavy Heavy- Duty Vehicle	No
7	2012-2013	C-20668	Gary McCall	On-Road VIP Heavy-Duty Vehicle	No
8	2012-2013	C-20668	D. Cardoza Company, Inc.	Off-Road Equipment- Mobile Agriculture	Yes
9	2013-2014	C-38521	County of Mono	Off-Road Equipment- Construction	No
10	2013-2014	C-22422	Coelho Farms, Inc.	On-Road VIP Heavy-Duty Vehicle	No

	Fiscal Year	Project Number	Grantee	Source Category	Project Inspected by CARB (Yes/No)
11	2014-2015	C-37901	Stephen Wesselink Farms, Inc.	Off-Road Equipment Mobile Agriculture	Yes
12	2014-2015	C-30428-D	Tulare Joint Union High School	On-Road Heavy-Duty Vehicle School Bus	No
13	2015-2016	C-48939	Green Valley Dairy, LLC	Off-Road Equipment Mobile Agriculture	No
14	2015-2016	C-54588	Mary D. Garcia DBA Joe R. Garcia	Off-Road Equipment Mobile Agriculture	No
15	2016-2017	G-74919	Forebay Farms, LLC	Stationary Agriculture - Portable Equipment	No
16	2016-2017	C-29967-4 #682238	Kings Canyon Unified School District	On-Road Heavy Heavy- Duty Vehicle School Bus	No
17	2017-2018	C-38770-1 #634319	Wood Brothers. Inc.	On-Road Heavy-Duty Vehicle	No
18	2017-2018	C-58936 #687754	Borba Farms Partners	Off-Road Equipment- Mobile Agriculture	No
19	2018-2019	C-60882 #661349	Valley Fresh Foods, Inc.	Off-Road Equipment- Mobile Agriculture	No

	Fiscal Year	Project Number	Grantee	Source Category	Project Inspected by CARB (Yes/No)
20	2018-2019	G-92460 #720975	B&R Custom Chopping, LLC	Off-Road Equipment- Mobile Agriculture	No

Appendix 2: Community Air Protection (CAP) Incentives

Table 1: CAP Incentives¹

Fiscal Year	Grant Number	Project	Implementation	Total Grant
2017-18	G17-MCAP-02	\$75,000,000	\$5,000,000	\$80,000,000
2018-19	G18-MCAP-05	\$59,700,000	\$3,980,000	\$63,680,000
Total		\$134,700,000	\$8,980,000	\$143,680,000

¹ Interest earned by the District is not included in table.

Table 2: Total Projects and Engines Funded by CAP Incentives

Fiscal Years	Total Engines	Total Projects
FY 2017-18 (Details in Table 7a)	843	852
FY 2018-19 (Details in Table 7a)	72	81
Total	915	925

Table 3: 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
	Community-Identified Projects	0	0	21	26
	Infrastructure	5	6	3	9
	Locomotive	4	4	0	0
CAP Incentives	Off-Road Agriculture	778	778	68	71
	Off-Road Construction	14	14	0	0
	On-Road Heavy Duty- School Bus	24	24	0	0
	Stationary and Portable Agricultural Engines	18	18	1	1
	Total	843	844	72	81

Table 4: CAP Incentives Projects Reviewed

	Fiscal Year	Project Number	Grantee	Source Category	Project Inspected by CARB (Yes/No)
1	2018-19	G-109207	Ricardo Bravo	Community- Identified Project - Lawn and Garden Equipment	No
2	2017-18	C-56713	San Joaquin Valley Railroad	Locomotives	No
3	2017-18	C-39126-17	Wood Bros., Inc.	Off-Road Equipment - Construction	No
4	2017-18	C-61329	Sun Pacific Farming Company, Inc	Off-Road Equipment - Mobile Agricultural	No
5	2017-18	C-62351-1	Andrew Bloom	Off-Road Equipment - Mobile Agricultural	No
6	2018-19	G-101499	Bloemhof Valley Ranches, LLC	Off-Road Equipment - Mobile Agricultural	Yes
7	2018-19	G-109053	Amanjot Bains	Community- Identified Project	No
8	2018-19	G-79805	H & P Dairy	Off-Road Equipment - Mobile Agricultural	No
9	2017-18	G-67653	Fowler Unified School District	On-Road Heavy- Duty Vehicles	Yes

^{*}A project where 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 8/14/2021.

	Fiscal Year	Project Number	Grantee	Source Category	Project Inspected by CARB (Yes/No)
10	2017-18	G-70786	Santos Equipment, LLC	Stationary and Portable Agricultural Engines	No
11	2018-19	G-109985	Premiere Agricultural Properties	Community- Identified Project	No
12	2018-19	HD.11: Heavy Duty Truck Rerouting	South Central Fresno Community Emission Reduction Plan	Community- Identified Project	No
13	2017-18	G-91157	Kruse Western Renewable Fuels, LLC	Infrastructure	No

Appendix 3: Goods Movement Emission Reduction Program (GMERP)

Table 1: GMERP Grants¹

Fiscal Year	Grant Number	Project	Administration	Total Grant
2008-2009	G08GMCT1	\$42,597,431	\$2,129,872	\$44,727,303
2013-2014	G13GMCT1	\$30,291,234	\$1,514,562	\$31,805,796
2014-2015	G14GMCT1	\$11,565,714	\$578,286	\$12,144,000
2014-2015	G14GMCR1	\$4,761,905	\$238,095	\$5,000,000
2014-2015	G14GMCL1	\$25,200,000	\$756,000	\$25,956,000
Total		\$114,416,284	\$5,216,815	\$119,633,099

¹ Interest earned by the District is not included in table.

Table 2: GMERP Projects Funded

Grant Number	Replacement	Retrofit	Engine	Total
G08GMCT1 & G11GMCT1 ¹	1,057	105	0	1,162
13GMC01	817	0	0	817
GMB14-C1 ^{1,2}	137	0	0	137
GMB14-C1 ²	22	0	0	22
GMB14-C1 ^{2,3}	5	0	0	5
Transport Refrigeration Units				
Total	2,038	105	0	2,143

¹CARB combined the FY2008-09 and FY2011-12 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 FY2014-15 truck projects include funds reallocated from the FY2013-14 grant that were not utilized due to project fallout.

²Grant GMB14-C1 includes three source categories: Trucks, Locomotives, and TRUs.

³Five TRU Infrastructure projects had a total of 437 plugs replaced with electric power plugs.

Table 3: GMERP Projects Reviewed

	Fiscal Year	Project Number	Grantee	Project Type	Project Inspected by ARB (Yes/No)
1	2008- 2009/ 2011-2012	G08GMC T1_00560	Mountain Valley Express Co Inc.	Retrofit Level 3 PM + Mark 1 NOx	No
2	2008- 2009/ 2011-2012	G08GMC T1_00645	Danell Bros. Inc.	Replacement	No
3	2008- 2009/ 2011-2012	G08GMC T1_00741	Esbeco Equipment Co., LLC	Replacement	No
4	2008- 2009/ 2011-2012	G08GMC T1_00974	Rabb Bros. Trucking Inc.	Replacement	No
5	2008- 2009/ 2011-2012	G08GMC T1_01006	Cartel Transport LLC	Replacement	No

	Fiscal Year	Project Number	Grantee	Project Type	Project Inspected by ARB (Yes/No)
6	2008- 2009/ 2011-2012	G08GMC T1_01716	KLX Inc	Replacement	No
7	2008- 2009/ 2011-2012	G08GMC T1_01911	Mountain Valley Express Co. Inc	Replacement	No
8	2008- 2009/ 2011-2012	G08GMC T1_02152	Wil Lill Transportation Leasing	Replacement	No
9	2008- 2009/ 2011-2012	G08GMC T1_02247	Yosemite Express Company DBA SMART Refrigerated Transport	Replacement	No
10	2008- 2009/ 2011-2012	G08GMC T1_02251	A. Lopez Trucking	Replacement	No
11	2013-2014	G13GMC T1_00089	Mike Lowrie Trucking, Inc.	Replacement	No
12	2013-2014	G13GMC T1_00129	R.J.S. Enterprises	Replacement	No
13	2013-2014	G13GMC T1_00136	Sam Cooksey Eggs Inc.	Replacement	No
14	2013-2014	G13GMC T1_00166	OK Produce (Charlie's Enterprises)	Replacement	No

	Fiscal Year	Project Number	Grantee	Project Type	Project Inspected by ARB (Yes/No)
15	2013-2014	G13GMC T1_00360	Producers Dairy Foods Inc.	Replacement	No
16	2013-2014	G13GMC T1_00370	Producers Dairy Foods Inc.	Replacement	No
17	2013-2014	G13GMC T1_00413	Dewey and Sons, Inc.	Replacement	No
18	2013-2014	G13GMC T1_01203	Ron Campbell Trucking Inc	3-Way Truck Transaction - Retrofit	No
19	2013-2014	G13GMC T1_02235	AGB Transport Inc. Agapito Gonzalez Bustillos	Replacement	No
20	2014-2015	G14GMC L1_00001	Western Milling LLC	Switcher Locomotive	No
21	2014-2015	G14GMC L1_00008	BNSF Equipment Acquisition Company LLC	MHP Line-Haul Locomotive	No
22	2014-2015	G14GMC L1_00019	BNSF Equipment Acquisition Company LLC	Line-Haul Locomotive	No
23	2014-2015	G14GMC R1_00007	Foster Poultry Farms	TRU Infrastructure	No
24	2014-2015	G14GMC R1_00015	Foster Poultry Farms	TRU Replacement	No

	Fiscal Year	Project Number	Grantee	Project Type	Project Inspected by ARB (Yes/No)
25	2014-2015	G14GMC R1_00023	C & S Wholesale Grocers	TRU Infrastructure	No
26	2014-2015	G14GMC T1_00035	Mandhir Singh	Replacement	No
27	2014-2015	G14GMC T1_00387	Harris Feeding Company	Replacement	No
28	2014-2015	G14GMC T1_00539	The Victory Group Inc	Replacement	No
29	2014-2015	G14GMC T1_00693	Food Express, Inc.	Replacement	No
30	2014-2015	G14GMC T1_00932	B&N Trucking, Inc.	Replacement	Yes
31	2014-2015	G14GMC T1_00949	United Parcel Service, Inc.	Replacement	No

Appendix 4: Funding Agricultural Replacement Measures for Emission Reductions Program (FARMER)

Table 1: FARMER Grant Funds¹

Fiscal Year	Grant Number	Project Funds	Admin Funds	Total Grant
2017-18	G17-AGIP-01	\$101,250,000	\$6,750,000	\$108,000,000
2018-19	G18-AGIP-16	\$97,785,000	\$6,519,000	\$104,304,000
Total		\$199,035,000	\$13,269,000	\$212,304,000

¹ Interest earned by the District is not included in table.

Table 2: FARMER Projects Funded²

Grant Name	Project Type	Total Projects
	Off-Road Agricultural Equipment	920
G17-AGIP-01	On-Road Heavy-Duty Agricultural Trucks	212
G17-AGIP-01	Irrigation Pumps	14
	Zero-Emission Agricultural UTVs	1,638
	Off-Road Agricultural Equipment	1,567
	On-Road Heavy-Duty Agricultural Trucks	1
G18-AGIP-16	Irrigation Pumps	5
	Zero-Emission Agricultural UTVs	811
	Trade-Up Projects	94
	Total	5,262

¹ Based on projects funded as of March 31, 2022.

Table 3. FARMER Projects Reviewed

	Fiscal Year	District Supplied Project ID	Project Category	Project Inspected by CARB (Yes/No)
1	2017-18	G-69155-A1	Off-Road Agricultural Equipment (2-for-1)	No
2	2017-18	G-74763-A1	Irrigation Pump	No
3	2017-18	G-70062-A1	On-Road Agricultural Truck	No
4	2017-18	G-69890-A1	On-Road Agricultural Truck	No
5	2017-18	G-78893-A1	Zero-Emission Agricultural UTV	No
6	2017-18	G-73175-A1	Zero-Emission Agricultural UTV	No
7	2017-18	G-92277-A1	Off-Road Agricultural Equipment	No
8	2018-19	G-71792-A1	Off-Road Agricultural Equipment	Yes
9	2018-19	C-60203-1-A1	Agricultural Equipment Trade-Up	Yes
10	2018-19	C-61305-1-A1	Agricultural Equipment Trade-Up	No

Appendix 5: Low Carbon Transportation Program (LCT)

Table 1: LCT Grants

Fiscal Year	Grant Number	Total Grant	Total Match & In-Kind	Total Project
2016-17	G16-ZTRK-03	\$7,125,515	\$5,818,168	\$12,943,683
2016-17	G15-LDPL-02	\$2,250,000	\$1,093,826	\$3,343,826

Table 2: LCT Projects Reviewed

Grant Number	Project	Vehicles Funded	Infrastructure and Other Items Funded
G16-ZTRK-03	Green On-Road Linen Delivery Project	21 Battery- Electric Walk- Delivery Vans (Medium Heavy- Duty Trucks)	29 Medium Heavy Duty Truck Chargers & Infrastructure
G15-LDPL-02	Ecosystem of Shared Mobility in the San Joaquin Valley	27 BEV & PHEV (Light Duty Vehicles)	17 Light Duty Vehicles Chargers, Local Transit App, Volunteer Ride Hailing

Appendix 6: School Bus Program

Table 1: LESBP Funds Diesel Emissions Reduction Act Grant Funds FY 2010-11 through FY 2018-19

Grant Agreement and Fiscal Year	Federal Grant Amount	State Grant Amount	Administration Funds Amount – State provided unless otherwise specified	Totals
G11-DERA-01 FY11-12	\$317,185	\$202,815	\$26,000	\$546,000
G12-DERA-01 FY12-13	\$454,899	\$285,101	\$37,000	\$777,000
G13-DERA-01 FY13-14	\$205,152	\$134,848	\$17,000	\$357,000
G13-SB01 FY 2013-14	None	\$1,085,430	\$54,272	\$1,139,702
G14-DERA-01 FY14-15	\$249,792	\$150,208	\$20,000	\$420,000
G15-DERA-01 FY15-16	\$415,905	\$261,481	\$33,869	\$711,255
G16-DERA-01 FY16-17	\$489,832	\$330,168	\$41,000	\$861,000
G17-DERA-01 FY17-18	\$497,604	\$752,590 (State Supplemental	\$26,190 (Federal Funds)	\$1,276,384

Appendix 6: School Bus Program

Table 1: LESBP Funds Diesel Emissions Reduction Act Grant Funds FY 2010-11 through FY 2018-19

Grant Agreement and Fiscal Year	Federal Grant Amount	State Grant Amount	Administration Funds Amount – State provided unless otherwise specified	Totals
G11-DERA-01 FY11-12	\$317,185	\$202,815	\$26,000	\$546,000
G12-DERA-01 FY12-13	\$454,899	\$285,101	\$37,000	\$777,000
G13-DERA-01 FY13-14	\$205,152	\$134,848	\$17,000	\$357,000
G13-SB01 FY 2013-14	None	\$1,085,430	\$54,272	\$1,139,702
G14-DERA-01 FY14-15	\$249,792	\$150,208	\$20,000	\$420,000
G15-DERA-01 FY15-16	\$415,905	\$261,481	\$33,869	\$711,255
G16-DERA-01 FY16-17	\$489,832	\$330,168	\$41,000	\$861,000
G17-DERA-01 FY17-18	\$497,604	\$752,590	\$26,190 (Federal Funds)	\$1,276,384
G17-DERA-01 FY18-19	\$376,485	\$755,326	\$57,674	\$1,189,485
Total	\$3,006,854	\$3,957,967	\$313,005	\$7,277,826

Table 2: LESBP Fiscal Years 2010-11 thru 2018-19

Project Types Funded	Retrofits	Replacements	Total Funded
School Buses	180	24	204

Table 3: LESBP Projects Reviewed

	Fiscal Year	Project File Number	Grantee	Project Type	Projects Inspected by ARB (Yes/No)
1	2011-2012	C-19181	Big Creek Elementary School District	Retrofit	No
2	2011-2012	C-19111	Farmersville Unified School District	Retrofit	No
3	2012-2013	C-19027	Tulare Joint High School District	Retrofit	No
4	2013-2014	C-19281	Stony Creek Joint Unified	Retrofit	No
5	2013-2014	C-19432	Elk Grove Unified School District	Retrofit	No
6	2014-2015	C-39760	Rick Evans Transportation Inc	Retrofit	No

	Fiscal Year	Project File Number	Grantee	Project Type	Projects Inspected by ARB (Yes/No)
7	2015-2016	C-43604	Roseville Join Union High School District	Retrofit	No
8	2015-2016	C-39777	ABC Unified School District	Retrofit	No
9	2016-2017	C-30480	Madera Unified School District	Replacement	Yes
10	2017-2018 & 2018-2019	G-70664	Sonoma Valley Unified School District	Replacement	No
11	2017-2018 & 2018-2019	G-70661	Sonoma Valley Unified School District	Replacement	No
12	2017-2018 & 2018-2019	G-70640	Sonoma Valley Unified School District	Replacement	No

Appendix 7: Enhanced Fleet Modernization Program and Clean Cars 4 All Program

Table 1: EFMP and CC4A Funds FY 2014-15 through FY 2018-19

Fiscal Year (FY) ¹	Grant Number	Project Funds	Administration Fund	Total Grant Amount
2014-2015	G14-EFMP-01	\$1,190,000	\$210,000	\$1,400,000
2014-2015	G14-LCTI-01	\$850,000	\$150,000	\$1,000,000
2015-2016	G15-EFMP-01	\$1,190,000	\$210,000	\$1,400,000
2015-2016	G15-LCTI-03	\$4,250,000	\$750,000	\$5,000,000
2016-2017	G16-EFMP-01	\$3,145,000	\$555,000	\$3,700,000
2016-2017	G16-LCTI-03	\$12,750,000	\$2,250,000	\$15,000,000
2016-2017	G18-PLUS-04	\$6,494,000	\$1,146,000	\$7,640,000
2018-2019	G18-EFMP-02	\$1,190,000	\$210,000	\$1,400,000
То	tal	\$31,059,000	\$5,481,000	\$36,540,000

Table 2: EFMP and CC4A Projects Reviewed²

	Grant Number 1	Grant Number 2	Calendar Year	Total Incentive
1	G16-LCTI-03	N/A	2018	\$4,000.00
2	G15-LCTI-03	N/A	2017	\$7,000.00
3	G16-LCTI-03	N/A	2018	\$9,500.00
4	G15-LCTI-03	N/A	2017	\$5,000.00
5	G16-EFMP-01	G16-LCTI-03	2018	\$5,500.00

¹The District was not issued a Grant in FY 2017-2018

²There was one duplicate project file that was also reviewed.

	Grant Number 1	Grant Number 2	Calendar Year	Total Incentive
6	G18-EFMP-02	G18-PLUS-04	2020	\$5,500.00
7	G14-EFMP-01	N/A	2015	\$4,500.00
8	G-16-LCTI-03	N/A	2019	\$9,068.08
9	G18-PLUS-04	N/A	2021	\$7,000.00
10	G-16-LCTI-03	N/A	2020	\$9,500.00
11	G16-EFMP-01	G-16-LCTI-03	2019	\$6,500.00
12	G-16-LCTI-03	N/A	2019	\$9,500.00
13	G-16-LCTI-03	N/A	2019	\$9,500.00
14	G16-EFMP-01	G-16-LCTI-03	2019	\$6,500.00
15	G18-EFMP-02	N/A	2021	\$4,500.00
16	G15-EFMP-01	N/A	2016	\$4,000.00
17	G18-PLUS-04	N/A	2021	\$9,500.00
18	G18-PLUS-04	N/A	2021	\$9,500.00
19	G18-PLUS-04	N/A	2021	\$9,500.00
20	G18-EFMP-02	G-18-PLUS-04	2020	\$5,500.00
21	G15-LCTI-03	N/A	2016	\$9,500.00
22	G15-LCTI-03	N/A	2016	\$9,500.00
23	G15-LCTI-03	N/A	2016	\$7,000.00
24	G15-LCTI-03	N/A	2016	\$7,000.00
25	G14-LCTI-01	N/A	2016	\$7,000.00
26	G14-LCTI-01	N/A	2015	\$7,000.00
27	G14-LCTI-01	N/A	2015	\$7,000.00
28	G14-LCTI-01	N/A	2015	\$9,500.00
29	G14-LCTI-01	N/A	2016	\$7,000.00
30	G16-EFMP-01	G-16-LCTI-03	2019	\$9,500.00

CARB Incentive Program Review Report San Joaquin Valley Air Pollution Control District March 17, 2023

	Grant Number 1	Grant Number 2	Calendar Year	Total Incentive
	\$221,068.08			

Appendix 8: References

- 1. State requirements including those under Health and Safety Code sections as follows:
 - a. 44275 through 44299.2 Carl Moyer Program
 - b. 44391.4 Community Air Protection Incentives
 - c. 39625 through 39627.5 Goods Movement Program
 - d. 39013, 44270.3, 44271, 44272, 44274 FARMER Program
 - e. 44125 through 44126 Enhanced Fleet Modernization Program
- 2. Governor's Executive Order S-02-07
- 3. Carl Moyer Program 2011 Guidelines (December 31, 2014), California Air Resources Board found at
 - https://ww2.arb.ca.gov/sites/default/files/classic/msprog/moyer/guidelines/2011/2011cmp_guidelinesVER4.pdf (website)
- 4. Carl Moyer Program 2017 Guidelines Volume I and Volume II (April 27, 2017), California Air Resources Board found at https://ww2.arb.ca.gov/guidelines-carl-moyer (website)
- 5. Carl Moyer Program advisories, Mail-outs, and other written communications
- 6. Carl Moyer and CAP Grant Award and Authorization requirements
- 7. CC4A and EFMP Implementation Plans
- 8. CC4A and EFMP Grant Agreements
- Community Air Protection Incentives Guidelines (2019) (website)
 https://ww2.arb.ca.gov/resources/documents/community-air-protection-incentives-guidelines
- FARMER Memo: (April 2022) Additional Project Categories, California Air Resources Board https://ww2.arb.ca.gov/resources/documents/farmer-program-april-2022additional-project-categories
- 11. 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
- 12. Executive Office Memo: FARMER- (September 2018) Additional Project Categories, California Air Resources Board https://ww2.arb.ca.gov/resources/documents/farmer-program-september-2018-additional-project-categories
- 13. Executive Office Memo: FARMER- (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
- 15. Goods Movement Program Local Agency Grant Agreements
- 16. Goods Movement Program CARB Resolutions and Executive Orders
- 17. Goods Movement Program Staff Report District Policies and Procedures and forms, including contracts with the engine owner/grant recipients

- 18. Proposed Fiscal Year 2016-17 Funding Plan for Low Carbon Transportation and Fuels Investments and the Air Quality Improvement Program https://ww2.arb.ca.gov/sites/default/files/classic/msprog/aqip/fundplan/proposed_fy16-17_fundingplan_full.pdf
- 19. Lower Emission School Bus Guidelines with Advisories https://ww2.arb.ca.gov/sites/default/files/2020-06/2008_LESBP_Guidelines-with-Advisories.pdf
- 20. Diesel Emissions Reduction Act and Lower Emission School Bus Program LESBP Grant Agreements

Appendix 9: 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 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) https://ww2.arb.ca.gov/carl-moyer-program-incentives-program-oversight
- 6. Carl Moyer Program 2011 Guidelines (April 21, 2008), California Air Resources Board found at https://ww2.arb.ca.gov/sites/default/files/classic/msprog/moyer/guidelines/2011/2011cmp_g
- uidelinesVER4.pdf (website)
 7. Carl Moyer Program 2017 Guidelines (April 27, 2017), California Air Resources Board found
- at https://ww2.arb.ca.gov/guidelines-carl-moyer (website)
 8. Clean Cars 4 All (website)
 https://ww2.arb.ca.gov/our-work/programs/clean-cars-4-all
- 9. Clean Cars 4 All and Enhanced Fleet Modernization Program Final regulation Order (website) https://ww2.arb.ca.gov/sites/default/files/classic/msprog/cc4a/frorev.pdf?_ga=2.260486155. 707660979.1560376396-1471894195.1559317486
- 10. 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
- 11. 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
- 12. 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
- 13. Diesel Emissions Reduction Act and Lower Emission School Bus Program Grant Agreements
- 14. 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

- 15. 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/cci-quantification-benefits-and-reporting-materials FARMER Guidelines (March 18, 2020), Air Resources Board
- 16. FARMER Program Quantification Methodology, Priority Population Criteria Tables, and Calculator Reporting Tool https://ww2.arb.ca.gov/resources/documents/cci-quantification-benefits-and-reporting-materials
- 17. 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
- 18. Proposition 1B: Goods Movement Emission Reduction Program, Final 2010 Guidelines for Implementation (March 2010) https://ww2.arb.ca.gov/resources/documents/proposition-1b-quidelines
- 19. Governor's Executive Order S-02-07
- 20. Lower Emission School Bus Program Website https://ww2.arb.ca.gov/our-work/programs/lower-emission-school-bus-program
- 21. Diesel Emissions Reduction Act Website https://www.epa.gov/dera/learn-about-impacts-diesel-exhaust-and-diesel-emissions-reduction-act-dera#dera