



## San Joaquin Valley Air Pollution Control District AB 617 Community Emission Reduction Program

### Road, Sidewalk, and Bike Infrastructure Improvement Program Emission Reduction Program Plan June 2022

#### *Shafter Community*

#### **PROJECT IDENTIFICATION**

##### *SHAFTER CERP RD.2 ROAD PAVING AND SIDEWALK IMPROVEMENTS*

##### *SHAFTER CERP LU.5 FUNDING FOR BIKE PATH CONSTRUCTION*

This is a Community Identified Project included and prioritized in the California Air Resources Board (CARB) and District adopted Community Emission Reduction Programs (CERP). Road, Sidewalk, and Bike Infrastructure Improvement Program is part of [California Climate Investments](#), a statewide initiative that puts billions of Cap-and-Trade dollars to work reducing greenhouse gas emissions, strengthening the economy, and improving public health and the environment — particularly in disadvantaged communities.

The measure will reduce dust from paved and unpaved roads in the community through road paving improvements, as well as reduce motor vehicle emissions by improving walkability of the community through sidewalk improvement and construction. Paving of unpaved roads reduces PM emissions from fugitive windblown and activity-related dust in the region.

#### **COMMUNITY SUPPORT**

This measure received support from the Shafter Community Steering Committee (CSC) and was included in the respective adopted Community Emission Reduction Programs. This plan was developed and modeled after existing plans and resources for similar projects within the state of California and includes feedback received from the CSC to create a plan to address the unique needs of the community. Information about the Steering Committees is included below:

**(1) Name(s) of the community group(s):**

Shafter Steering Committee [Map](#)

**(2) Purpose of community group(s)**

AB617 Community Engagement and Public Input

**(3) Total number of members in the community group(s)**

Shafter – 27 members

**(4) Date(s) of formation/establishment**

Shafter – December 2018

**(5) A description of the decision-making process must be included.**

Shafter Steering Committee [Charter](#)

**(6) Community Support Demonstration**

Shafter [CERP](#)

### ***MECHANISM FOR INFORMING COMMUNITY***

This measure has been discussed at Community Steering Committee meetings in addition to the outreach activities conducted to inform residents of the program and requirements for participation. The outreach conducted has and will continue to be the following:

- Social media
- Mailers
- Print ads
- Press releases and press events
- Events, town halls, webinars, etc.
- Other ideas as brought up by committee

Additionally, the District and CSC have jointly developed a tool to track progress of each measure adopted within the CERP. This tracker is updated monthly and includes updates such as number and types of projects contracted, funding allocated, project-associated benefits to the community, and other information specific to each measure. The tracker is shared directly with CSC members ahead of each regularly scheduled CSC meeting and is available on the community webpage in both English and Spanish.

### ***PARTICIPANT REQUIREMENTS***

The District has identified an eligible public entity for this program. To be considered a Grantee for this program, the public entity must meet or partner with a subcontractor(s) that meet the following requirements:

- Grantee must be the owner of the area to be paved or have authority to pave the area.
- Grantee must maintain the paved area during the entire contract period, 10 years.
- Grantee must make the project available for inspection if requested by SJVAPCD and/or CARB staff during the entire contract period, 10 years.
- Grantee is responsible for obtaining any permits required to do the project.
- If Grantee holds an operating permit or other type of permit for the project site, copies of permits shall be provided to District as part of application.

- The Grantee or their sponsor must have the financial capacity to complete, operate, and maintain the project.
- Grantee or subcontractor(s) may not claim emission reductions and must comply with District requirements.

Routine maintenance and rehabilitation projects are not eligible for funding. Grantee may not claim emission reduction credits from the project during the contract period.

### **PROJECT SELECTION PROCESS**

District will award project(s) that are located within the Shafter AB 617 boundaries and provide road paving and/or sidewalk improvements that reduces dust and emission reductions. District worked with the CSC and local public agencies to determine best projects for this Plan. In determining project selections, projects may be selected if they reduce dust exposure, provide active transportation such as sidewalks for pedestrian access or bicycle infrastructure, and for safety concerns. After feedback received from the CSC and local public agencies, the District’s Governing Board (Board) approved two projects, State Route 43 and Mexican Colony, at the August 2022 meeting. The District will continue to work closely with the CSC and other entities to identify and prioritize additional projects that meet established criteria. Grantees must meet all the criteria listed in this plan and agree that paving projects will meet all local, state and federal statues, rules and regulations.

### **FUNDING AMOUNTS**

The approved funding for the Shafter community is \$3,775,000.

The following costs are eligible for funding as part of this CERP strategy:

- Supplies, equipment, and materials
- Labor and construction (including contracted services, mobilization, and traffic control)
- Signs and interpretive aids communicating information about the project
- Up to 25% of the grant request may be budgeted for non-construction costs, including, permitting, design, and administration.
- Up to 30% may be budgeted for contingency costs
- The grant amount will cover 100% of eligible costs

The following costs are ineligible to receive funding as part of this CERP strategy:

- Overhead (i.e., rent, utilities, office equipment/supplies)
- Maintenance activities

Projects eligible for funding must be located within the Shafter AB 617 boundary and meet eligibility requirements described in this plan.

Payments will be made on a reimbursement basis. The Grantee pays for services, products, and supplies, submits invoices and proof of payment, and is then reimbursed.

## PROJECT LIFE

Entities that receive grants to fund eligible projects are expected to maintain their project for a minimum of 10 years. During this time, entities must conduct as-needed maintenance such as repairing any potholes and re-painting of lines and comply with other requirements described in the “Participant Eligibility” section of this CERP. Additionally, entities must make the project available for inspection if requested by the District and/or CARB staff during this same contract period.

## REPORTING

The District will report program information in accordance with Community Air Protection program guidelines found at [https://ww3.arb.ca.gov/msprog/cap/docs/cap\\_incentives\\_2019\\_guidelines.pdf](https://ww3.arb.ca.gov/msprog/cap/docs/cap_incentives_2019_guidelines.pdf).

All projects that receive funding under this program must comply with the requirements described in Section H of the CAP Incentives 2019 Guidelines. This will involve the preparation of Semi-Annual and Yearly reports, which the District will prepare based on information collected from project participants.

Participants must ensure that project-related information is complete, correct, supported by documentation, and supplied to the District upon request for the preparation of reports.

## EMISSION REDUCTIONS

Emission reductions for this CERP will be estimated using the CARB Quantification Methodology for the Sustainable Transportation Equity Project.<sup>1</sup> Active Transportation is the calculation of emission reductions from displaced autos. The District will calculate the bicycle infrastructure with the appropriate methodology and the road paving and sidewalks will utilize the pedestrian infrastructure methodology.

### Annual Auto VMT Reduced in Miles per Year

This equation calculates the annual auto VMT displaced by the project. Projects that maintain the same bikeway class that already exists are not quantifiable.

### Equation

$$AutoVMT_{Displaced\_Yr} = D \times ADT \times (A + C) \times GFA \times L$$

Where,

Units

$AutoVMT_{Displaced\_Yr}$  = Annual auto VMT displaced in the first or final year

miles/year

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<sup>1</sup> California Air Resources Board. Quantification Methodology. California Air Resources Board Sustainable Transportation Equity Project. California Climate Investments. June 1, 2020. Accessed February 17, 2023. [http://www.arb.ca.gov/cc/capandtrade/auctionproceeds/carb\\_step\\_qm\\_final\\_060120.pdf?ga=2.196300261.898542068.1675705488-1232863436.1673026016](http://www.arb.ca.gov/cc/capandtrade/auctionproceeds/carb_step_qm_final_060120.pdf?ga=2.196300261.898542068.1675705488-1232863436.1673026016)

<i>D</i>	= Annual days of use of new facility. Default is 200 days.	days/year
<i>ADT</i>	= Average two-way daily traffic on road parallel to facility	vehicle trips/day
<i>A</i>	= Adjustment factor for active transportation (see Table below)	miles/trip
<i>C</i>	= Credit for key destinations near facility (see Table below)	unitless
<i>GFA</i>	= Growth factor adjustment. Defaults are <ul style="list-style-type: none"> <li>• 1 for pedestrian infrastructure and new Class II bike lanes</li> <li>• 1.54 for new Class I bike paths or Class IV cycle tracks</li> <li>• 0.54 for conversion from Class II bike lanes to Class IV cycle tracks</li> </ul>	unitless
<i>L</i>	= Average length of auto trip replaced. Defaults are <ul style="list-style-type: none"> <li>• 0.3 miles for pedestrian trips</li> <li>• 1.5 miles for bike trips</li> </ul>	miles

Active Transportation Adjustment Factors:

Average Daily Traffic (vehicle trips per day)	One-way Facility Length <sup>2</sup> (miles)	Adjustment Factor for Population > 250,000 or Non-university Town with Population < 250,000	Adjustment Factor for University Town with Population < 250,000
1 to 12,000	≤ 1	0.0019	0.0104
1 to 12,000	1.01 to 2	0.0029	0.0155
1 to 12,000	> 2	0.0038	0.0207
12,001 to 24,000	≤ 1	0.0014	0.0073
12,001 to 24,000	1.01 to 2	0.0020	0.0109
12,001 to 24,000	> 2	0.0027	0.0145
24,001 to 30,000	≤ 1	0.0010	0.0052
24,001 to 30,000	1.01 to 2	0.0014	0.0078
24,001 to 30,000	> 2	0.0019	0.0104

Key Destination Credits:

Number of Key Destinations	Credit within ½ Mile of Facility	Credit within ¼ Mile of Facility
0 to 2	0	0
3	0.0005	0.001
4 to 6	0.0010	0.002
≥ 7	0.0015	0.003

Annual Emission Reductions from Displaced Auto VMT

<sup>2</sup> The length of bicycle facilities should be measured in one direction because the adjustment factor, based on length and ADT, accounts for two-way trips.

Annual emission reductions from displaced auto VMT calculates the annual emission reductions associated with auto VMT displaced by the project.

**Equation**

$$E_{Reduced\_Yr} = \frac{AutoVMT_{Displaced\_Yr} \times EF_{Yr}}{CF}$$

Where,		<u>Units</u>
$E_{Reduced\_Yr}$	= Annual emission reductions from displaced auto VMT	MTCO <sub>2</sub> e/year or lbs/year
$AutoVMT_{Displaced\_Yr}$	= Estimated VMT displaced in the first or final year attributed to the project	miles/year
$EF_{Yr}$	= Emission factor in the first or final year (based on weighted fleet average)	grams/mile
$CF$	= Conversion factor	grams/MT or grams/lb

**Emission Reductions from Displaced Auto VMT**

To estimate both the GHG and air pollutant emission reductions from Active Transportation projects as the emission reductions from displaced auto VMT.

**Equation**

$$E_{Reduced} = \frac{E_{Reduced\_Yr1} + E_{Reduced\_YrF} \times QP}{2}$$

Where,		<u>Units</u>
$E_{Reduced}$	= Total emission reductions from displaced auto VMT	MTCO <sub>2</sub> e or lbs
$E_{Reduced\_Yr1}$	= Emission reductions from displaced auto VMT in first year	MTCO <sub>2</sub> e/year or lbs/year
$E_{Reduced\_YrF}$	= Emission reductions from displaced auto VMT in final year	MTCO <sub>2</sub> e/year or lbs/year
$QP$	= Quantification period. Defaults are: <ul style="list-style-type: none"> <li>• 20 years for pedestrian infrastructure and Class I bike paths</li> <li>• 15 years for Class II bike lanes or Class IV cycle tracks</li> </ul>	Years

**Qualitative Benefits**

Improvements to roads and sidewalks within the AB 617 community of Shafter will provide qualitative benefits and reduce particulate matter emissions. The reduction in emissions can improve the health and well-being of the residents, as paved roads and sidewalks provide access to cleaner transportation and encourages healthier alternatives, such as walking and biking.

In addition, unpaved areas, such as parking lots and sidewalks, often cannot be used by people with special needs due to the poor condition of the surface. Paving and improvements to these areas, will reduce health impacts and require less maintenance by replacing the need to temporarily apply water, gravel, or other materials.