

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

Vegetative Barriers and Urban Greening Community Identified Emissions Reduction Project Plan

PROJECT IDENTIFICATION

This is a Community Identified Project included and prioritized in the California Air Resources Board (CARB) and District adopted Community Emission Reduction Programs (CERP). Vegetative Barriers and Urban Greening Emission Reduction 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.

Vegetative Barrier and Urban Greening projects use natural solutions to mitigate air quality impacts. Projects may include planting trees or vegetative barriers in the community in order to reduce emissions and provide several key co-benefits. Under strategies *UG.1 Increased Urban Greening and Forestry* and *VB.1 Incentive Program for the Installation of Vegetative Barriers Around/Near Sources of Concern*, the CERP proposes to identify areas where these projects could be implemented and fund Vegetative Barrier/Urban Greening projects throughout the Stockton community.

While a major benefit of Urban Greening projects is greenhouse gas (GHG) reductions, Vegetative Barrier and Urban Greening projects can also reduce exposure to criteria air pollutant (CAP) emissions by improving local air quality and in protecting sensitive communities. Demonstrating that particulate matter (PM) and oxides of nitrogen (NOx) emissions decrease as a result of Vegetative Barrier/Urban Greening is vitally important and necessitates the incorporation of available baseline and performance period air monitoring data. According to the U.S. EPA, when properly designed, Vegetative Barriers are beneficial in reducing near-road air pollution, either alone or in combination with solid noise barriers. Factors to be considered when designing Vegetative Barriers include, but are not limited to, vegetation height, thickness, porosity, seasonal effects, air emissions of plant species, pollution and stress resistance, maintenance, and roadway safety. A full list of design considerations can be found in EPA's *Recommendations for Constructing Roadside Vegetation Barriers to Improve Near-Road Air Quality* attached as Exhibit A.

COMMUNITY SUPPORT

This measure received support from the Stockton 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):**
Stockton 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)**
Stockton – 35 members
- (4) **Date(s) of formation/establishment**
Stockton – March 4, 2020
- (5) **A description of the decision-making process must be included.**
Stockton Steering Committee [Charter](#)
- (6) **Community Support Demonstration**
Stockton [CERP](#)

COMMUNITY ENGAGEMENT CRITERIA

This measure has been discussed at Community Steering Committee meetings in addition to additional subcommittee meetings conducted to inform residents of the program and to shape the requirements for participation. The engagement process shall include the following:

- Ongoing collaboration with CSC Trees Subcommittee Members
- Social media
- Mailers
- Print ads
- Press releases and press events
- Events, town halls, webinars, etc.
- Other engagement strategies identified as needed

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

(A) Program Eligibility:

(1) Participant Eligibility - Participants must meet the following criteria:

- a) A city, county, special district (Green Improvements/Benefit District, Flood Control District, etc.), non-profit, tribal government, or public agency or entity for projects to be implemented within the selected AB 617 communities with this measure adopted within the CERP.
- b) Be the owner of the land or have authority from the owner of the land where the Vegetative Barrier/Urban Greening project will be planted;
- c) Maintain the green space during the entire contract period. This includes tree maintenance, up to and including removal and replacement of dead trees;
- d) Consider baseline air monitoring data available through AB617 and other state funded air monitoring projects in the selection, design and characterization of the benefits of the **Vegetative Barrier** project(s).
- e) Make the project available for inspection if requested by SJVAPCD and/or CARB staff during the entire contract period, which will be ten (10) years;
- f) Contact the local County Agricultural Commissioner's Office before obtaining any plant material originating from outside the respective county to ensure all the requirements for movement of plant material into the respective county are met;
- g) Ensure that trees must be purchased, planted, and maintained to the specifications provided in Appendix H of CAL Fire's Urban and Community Forestry Grant Guidelines¹.
- h) Where feasible, projects shall provide public access
- i) Obtain any required permits;
- j) Ensure that all work performed is in conformance with the California Environmental Quality Act and all other applicable statutes, rules, and regulations;
- k) Have financial capacity to complete, operate, and maintain the project;
- l) All property taxes where the Vegetative Barrier/Urban Greening project will be located must be current at the time of application;
- m) Any funds required from other sources must reasonably be expected to be available in the time frame needed to carry out the project.

(B) Project Eligibility Criteria

(1) All Projects:

- a) Species selection - required
 - Non-Invasive
 - Non-Poisonous
 - Roadway safety conformity (where applicable)
 - Maximize GHG reductions
 - Low-biogenic volatile organic compound (BVOC) emitting

¹ Appendix H, CAL FIRE Urban and Community Forestry Grant Guidelines. Available: https://www.fire.ca.gov/media/9653/cal-fire-ucf-cci-2019-20_grant-guidelines_final.pdf#page=54
Accessed: March 2021.

- Minimize allergenic pollen
- b) Species selection - to be considered in selection
- Native Species
 - Perennial, annual or mix
 - Drought resistance
 - Adaptive to local site conditions (i.e., soil and climate factors)
 - Erect growth habit with stiff stems
 - Resistance to lodging and strong leaf retention
 - Tolerance to soil deposition
 - Density
- c) Vegetation Characteristics – The following plant characteristics should be considered when making species selection. A full detailed description of vegetation characteristics can be found in Exhibit A.
- Seasonal Effects
 - Leaf Surface
 - Air Emissions
 - Pollution and Stress Resistance
- d) Routine maintenance and rehabilitation projects are eligible for funding.

Applicants are encouraged to review the resources provided in Exhibit D as they prepare their proposals.

(2) Vegetative Barrier Projects:

- Vegetative Barrier projects should be designed utilizing the design elements and concepts contained in USEPA's *Recommendations for Constructing Roadside Barriers to Improve Near-Road Air Quality* (Exhibit A), including barrier height, thickness, porosity and length.

(C) Application Process

The Program application is attached to this program plan as Exhibit B. Applications must be submitted to the District during the Request for Proposals (RFP) period. The RFP will include scoring criteria as developed with the CSC. To initiate the RFP period, the District will issue a public notification to advertise the availability of grant funds for this project type, provide instructions to access and submit the application, and include a due date by which applications must be submitted.

Entities will submit applications that include the required information as described in this Project Plan. A certification section is included in the application and details participant requirements. Participation occurs in several phases:

- (1) Participants will be required to submit a completed application along with the Certifications Form signed by the applicant, a completed IRS Form

W-9, Assessor's parcel map, and emission reduction estimates during the RFP period.

- (2) Once the RFP period has ended, the District will review applications received and contact applicants as necessary to gather additional information. The District will aim to respond to prospective applicants within 90 days following the end of the RFP period to alert them if their projects have been selected to receive funding. However, this timeline may be extended at the discretion of the District (e.g. to reach consensus from the CSC).
- (3) Upon CSC consensus, applications selected for funding will be processed by District Staff and a contract will be offered to the participant. Once both parties have agreed to sign the contract, the participant will be notified of the contract execution, at which point participants may then commence work on the project. Project expenses cannot be incurred prior to contract execution.
- (4) Once a participant has completed the Vegetative Barrier/Urban Greening project, they may submit a Claim for Payment packet for reimbursement. A complete Claim for Payment packet is required as part of the reimbursement process and must include, but is not limited to, the invoice(s) and receipts for the services performed and materials purchased, proof of payment for all expenses. During this time, District inspectors will inspect and take photos of the project site. District staff will review submitted claim packets and reimburse for eligible costs, up to the approved contract amount.

FUNDING AMOUNTS

The funding for each community will be based on the adopted community CERP.

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

- Initial study
- Supplies and materials
- Labor and construction
- Contracted services
- Signs and interpretive aids communicating information about the project
- Ongoing project maintenance
- Up to 25% of the grant request may be budgeted for non-construction costs, including but not limited to design, permitting, outreach, direct project administration and management.
- Up to 10% 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)

As described in the CERP, the UG.1 measure has budgeted \$1,000,000.00 to increase urban greening/forestry along with a budgeted \$1,000,000.00 in the VB.1 measure for the deployment of vegetative barrier installments. Projects eligible for funding must be located within the Stockton community 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. If the applicant is unable to carry the financial responsibility of a reimbursement program on their own, they may partner with a local public agency or 501(c)(3) non-profit.

PROJECT SELECTION AND REPORTING

Applications received by the District will be reviewed by and distributed to District staff and the CSC. Projects will be scored by the CSC with the assistance of District staff in accordance with the criteria presented in the RFP. The scores are meant to inform the decision-making process but will not be the determining factor for project selection. A meeting with the CSC will be scheduled after the conclusion of the RFP period to present and rank the submitted proposals.

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.

All projects that receive funding under this program must comply with the requirements described in Section H of the CAP Incentives 2019 Guidelines.² This will involve the preparation of Mid-Cycle 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

A) Emission Reductions

² CARB. 2020. *Community Air Protection Incentives 2019 Guidelines*. October 14. Available at: https://ww2.arb.ca.gov/sites/default/files/2020-10/cap_incentives_2019_guidelines_final_rev_10_14_2020_0.pdf. Accessed: April 2021.

Various California state and institutional bodies have developed tools to help estimate the GHG reductions and co-benefits associated with Vegetative Barrier/Urban Greening projects. The methodology and referenced tools below are consistent with the Quantification Methodology developed for the California Natural Resources Agency (CNRA) Urban Greening Grant Program under the California Climate Investments Program.

All Vegetative Barrier and Urban Greening project calculations can be performed in a workbook that has been developed by CARB for the CNRA³. Project applicants need to fill out data within two tabs in this workbook in order to quantify emissions and co-benefits. Applicants must fill out tabs “Project Info,” and “Tree Planting – ITP.” The tab “Tree Planting – ITS” should not be filled out (The “Tree Planting – ITS” tab is designed for an alternative input tab for use with alternative software that is no longer supported). Tab “New Bike-Ped Infrastructure” should not be completed, as new bicycle/pedestrian infrastructure is not included in the Vegetative Barrier/Urban Greening Program Plan.

In order to fill out all the information as prompted in the spreadsheet, project applicants will also need to use three external tools, as follows:

- University of California Agriculture and Natural Resources (UCANR) Water Use Classification of Landscape Species (WUCOLS IV) tool⁴
- California Department of Water Resources (DWR) Water Budget Workbook⁵
- i-Tree Planting Tool⁶

A guide detailing how to use each of these tools can be found in Exhibit C.

(B) Qualitative Benefits

In addition to reducing GHG and CAP emissions, Vegetative Barrier and Urban Greening projects will qualitatively benefit the surrounding communities. Urban Greening projects can provide shade to sidewalks and streets, which can encourage active transportation by making it more comfortable to walk or bike in those areas. This can improve the health and well-being of the community. Similarly, Vegetative Barrier and Urban Greening projects can shade buildings and reduce energy consumption by lessening the load on air conditioning systems. When native and/or drought-resistant vegetation is planted and maintained using water efficient irrigation methods, Vegetative Barrier and Urban Greening projects can reduce water usage. In addition, planting more trees in certain areas, such as near freeways, may also help reduce noise pollution.

³ CARB Urban Greening Calculator Tool (Version 3). Available at: <https://ww2.arb.ca.gov/resources/documents/cci-quantification-benefits-and-reporting-materials?corr> Accessed: February 2021.

⁴ WUCOLS IV Database. Available at <https://ucanr.edu/sites/WUCOLS/> Accessed: February 2021.

⁵ DWR Water Budget Workbook. Available at: <https://cadwr.app.box.com/s/5k39tv10u42rp5bn2uebd7fodkxzgve7> Accessed: February 2021

⁶ i-Tree Planting Calculator v2.1.2. Available at: <https://planting.itreetools.org/> Accessed: February 2021.