

# City of Shafter Community Emissions Reduction Program (CERP) Development

Proposed emission reduction and exposure reduction strategies for the Committee's consideration and comment

July 22, 2019

San Joaquin Valley Air Pollution Control District

# Agricultural Operations

# Dairy Feed Mix Electrification: Provide Incentives for Electric Dairy Feed Mixing Equipment

- Type of Strategy: Incentive
- Purpose: To provide a higher level of incentives for electric dairy feed mixing equipment and associated equipment (feed trucks, wheel loaders, feed pushers) for dairy operations near the community of Shafter
- Goal: Fund electric feed mixing equipment for 5 dairies located near Shafter
- Target: 350 tons NO<sub>x</sub>, 18 tons PM<sub>2.5</sub> (based on average emission reductions expected per project)
- Incentives to be invested: \$6,500,000

# Nut Harvesting: Provide Incentives for Low-Dust Technology Nut Harvesters

- Type of Strategy: Incentives
- Purpose: To provide increased outreach and access to incentive funding for the replacement of conventional nut harvesting equipment operating on ag land surrounding Shafter with new, low-dust nut harvesting equipment
- Goal: Replace 25 pieces of conventional nut harvesting equipment with new, low-dust harvesting equipment
- Target: 42.5 tons NO<sub>x</sub>, 0.34 tons combustion PM<sub>2.5</sub>, 90 tons fugitive PM<sub>2.5</sub> (based on average emission reductions expected per project)
- Incentives to be invested: \$2,500,000

# Agricultural Open Burning: Provide Incentives for Alternatives to Agricultural Burning

- Type of Strategy: Incentive
- Purpose: To limit the potential for localized PM<sub>2.5</sub> impacts associated with open agricultural burning by providing enhanced access to funding for the District's Alternative to Agricultural Open Burning Incentive Program for growers within Shafter and the surrounding area
- Goal: Fund up to 950 acres of alternative practices
- Target: 103 tons PM<sub>2.5</sub>
- Incentives to be invested: \$500,000

# On-Field Agricultural Practices: Promote Implementation of Conservation Tillage Practices

- Type of Strategy: Outreach and Education
- Purpose: To further reduce the potential for localized fugitive particulate matter (PM) emissions associated with on-field agricultural practices
- Goal: Work with local agricultural groups to conduct focused outreach to promote more widespread implementation of conservation tillage practices such as cover cropping, no till, low till, strip till, and precision agriculture

# Ag Engines: Provide Incentives to Replace Diesel Agricultural Pump Engines with Electric Motors

- Type of Strategy: Incentive
- Purpose: To provide increased outreach and access to incentive funding for the replacement of existing diesel agricultural pump engines with electric motors within in and surrounding Shafter, including capital funding for equipment and electric line extension
- Goal: Fund replacement of 10 existing diesel agricultural pump engines with electric motors near the community of Shafter.
- Target: 90 tons NO<sub>x</sub>, 4 tons PM<sub>2.5</sub> (based on average emission reductions expected per project)
- Incentives to be invested: \$230,000

# Ag Engines: Work with PUC & Utilities to Develop Preferred Utility Rate Structure for Electric Ag Pump Motors

- Type of Strategy: Policy/Advocacy
- Purpose: To work with the Public Utilities Commission (PUC) and utilities to develop preferred utility rates for replacing existing diesel agricultural pump engines with electric motors
- Goal: Advocate for the establishment of a preferred rate structure from the PUC and utilities for electric ag pump motors
- Target: Reductions in PM<sub>2.5</sub> and/or Toxic Air Contaminants (quantity of reductions to be determined)

# Ag Equipment: Provide Incentives to Replace Diesel Ag Equipment with the Cleanest Available Equipment

- Type of Strategy: Incentives
- Purpose: To provide increased outreach and access to incentive funding for the replacement of older, high polluting ag equipment (e.g. tractors) operating within and surrounding Shafter with new, cleaner equipment through the District's existing Heavy-Duty Engine Incentive Program
- Goal: Replace 100 pieces of diesel ag equipment with new, cleanest available equipment
- Target: 750 tons NO<sub>x</sub>, 60 tons PM<sub>2.5</sub> (based on average emission reductions expected per project)
- Incentives to be invested: \$5,000,000

# Dairy Trucks: Provide Incentives for the Replacement of Dairy Trucks with Zero or Near-Zero Emission Trucks

- Type of Strategy: Incentives
- Purpose: To provide increased outreach and access to incentive funding for the replacement of diesel dairy trucks operating in and around Shafter with new, zero- or near-zero emission trucks
- Goal: Replace 20 older, diesel dairy trucks with new zero or near-zero-emission trucks
- Target: 128 tons NO<sub>x</sub>, 0.4 tons PM<sub>2.5</sub> (based on average emission reductions expected per project)
- Incentives to be invested: \$2,000,000 (funding amounts up to \$100,000 per truck)

# Dairy Digesters: Support dairy operations near Shafter in installing dairy digesters

- Type of Strategy: Outreach and Incentive
- Purpose: Support dairy operations near the City of Shafter in installing dairy digesters, which capture emissions of methane for productive use in energy production
- Goal: Work closely with CDFA and industry representatives to ensure that digesters funded through new State programs are designed and implemented to be protective of air quality (i.e., pipeline injection, mobile source fuel projects)
- Target: No reduction in criteria pollutants as a result of this measure, in fact an increase in criteria pollutants can result from digesters that are not designed in a manner that mitigates or eliminates criteria pollutants

# Alternative Manure Management Practices: Support Dairy Farms Near Shafter in Implementing Alternative Manure Management Strategies

- Type of Strategy: Outreach and Incentive
- Purpose: Support dairy farms near Shafter with the implementation of alternative manure management strategies that help further reduce the emissions of VOCs, ammonia, and methane, through funding and educational outreach about programs available through state agencies
- Goal:
  - Number and type of projects, and funding availability, will be developed with steering committee input when state funding guidelines are available
  - The District will work with local agricultural groups to conduct outreach to promote alternative manure management strategies

# Committee Ideas Not Proposed for CERP

- **CSC Comment:** The ten factory dairies to the west of Shafter should not empty or aerate their manure lagoons during the months of December and January to reduce ammonia in the air during the worst months of PM2.5
- **District Response:** Ammonium nitrate formation in the Valley is driven by nitrogen oxides, not ammonia, so reducing ammonia emissions won't significantly reduce PM2.5 concentrations
- However, reductions from dairies are addressed by many proposed measures: feed mixer electrification; dairy digester collaboration with CDFA; conservation management education and outreach; irrigation pump conversions to electric; and alternative manure management strategies

# Pesticides: Reduce exposure to 1,3-Dichloropropene (1,3-D)

- Type of Strategy: Regulatory (statewide regulation)
- Purpose: To reduce short-term (acute) exposure to 1,3-D and reassess the township cap to address cancer risk
- Goal: DPR has committed to developing a statewide measure to reduce exposure to 1,3-D
- Target: 1,3-D reductions to be determined by DPR through rule-making process

# Committee Ideas Not Proposed for CERP

- **CSC Suggestion:** Several measures specific to pesticides, including banning pesticide applications, reducing the 1,3-D township cap, a notification program, a 1 mile buffer zone, and reduction plans based on evaluations of TACs
- **District Response:** As the District does not have authority over pesticides in their pesticidal use, the District has made available to the responsible agencies committee comments regarding pesticide use
  - District staff hope to provide input from the Department of Pesticide Regulation and the County Ag Commissioner on these committee comments in the Shafter Community Emissions Reduction Program

# Heavy Duty Mobile Sources

Trucks, Buses, and Locomotives

# Heavy Duty Trucks: Provide Enhanced Incentive Funding for Zero and Near-Zero Emission Technology

- Type of Strategy: Incentive
- Purpose: To provide enhanced outreach and access to incentive funding for zero and near-zero emissions clean truck technologies that operate within the community (regional, long haul)
- Goal: Replace 60 older, heavy duty diesel trucks operating in Shafter with near-zero emission heavy duty trucks
- Target: 196.6 tons NO<sub>x</sub>, 0.54 tons PM<sub>2.5</sub> (based on average emission reductions expected per project)
- Incentives to be invested: \$6,000,000

# Heavy Duty Trucks: Support the Deployment of Zero Emission Yard Trucks and TRUs

- Type of Strategy: Incentive
- Purpose: Provide incentives to support the deployment of clean yard trucks, transportation refrigeration units (TRUs), and related infrastructure at warehouses and other facilities within the community with priority on zero emission technologies
- Goal: Deploy 30 new zero emission yard trucks or transportation refrigeration units, along with associated infrastructure
- Target: At least 0.09 tons NO<sub>x</sub>, 5.97 tons PM<sub>2.5</sub> (based on conservative emission reductions expected per project)
- Incentives to be invested: \$4,000,000

# Heavy Duty Trucks: Measures to Reduce Idling of Heavy Duty Trucks Within the Community

- Type of Strategy: Incentive
- Purpose: To develop and/or work to implement measures that reduce idling of heavy duty trucks within the community
- Goal: Install 20 plugs to reduce idling of heavy duty trucks at distribution and warehouse facilities within the community
- Target: 6.26 tons NO<sub>x</sub>, 0.10 tons PM<sub>2.5</sub> (based on average emission reductions expected per project)
- Incentives to be invested: \$60,000

# Heavy Duty Trucks: Implement Pilot Incentive Program to Provide Truck Emissions Repairs

- Type of Strategy: Incentive
- Purpose: To implement a pilot incentive program to provide incentives for heavy duty truck emissions-related repairs
- Goal: Utilize new pilot program to identify and repair at least 6 heavy duty trucks operating within community
- Target: Reductions in PM (quantity of emission reductions to be determined)
- Incentives to be invested: \$50,000

# Heavy Duty Diesel Trucks: Enhanced Enforcement of the Statewide Anti-Idling Regulation

- Type of Strategy: Enforcement
- Purpose: To limit the potential for localized PM<sub>2.5</sub> and toxic air quality impacts associated failure to comply with the state's anti-idling regulation
- Goal: Partner with CARB and the community to identify heavy duty diesel truck idling hot spots, especially those near sensitive receptors such as schools, to target enforcement efforts of the state's regulation within the community. At least 1 targeted anti-idling enforcement sweep will be conducted each quarter for the next 5 years.

# School Buses: Enhance Outreach and Access to Incentive Funding for New School Buses

- Type of Strategy: Incentive
- Purpose: To provide increased outreach and access to incentive funding for the replacement of older, high polluting school buses with new zero or near-zero-emission school buses operating within and surrounding Shafter.
- Goal: Replace up to 4 school buses, operated by Richland SD, Kern High SD with zero-emission battery-electric school buses that operate within the community
- Target: 5.2 tons NO<sub>x</sub>, 0.52 tons PM<sub>2.5</sub> (based on average emission reductions expected per project)
- Incentives to be invested: \$1,600,000 (funding up to \$400,000 per bus)

# Transit Buses: Incentive Program for Transit Bus Replacement

- Type of Strategy: Incentive
- Purpose: To provide incentives for the replacement of older, high polluting transit buses with new zero or near-zero-emission transit buses operating within and surrounding Shafter.
- Goal: Provide incentives to replace older, high-polluting transit buses with new, zero or near-zero-emission transit buses that operate within Shafter
- Target: Reductions in PM<sub>2.5</sub> and/or Toxic Air Contaminants (quantity of reductions to be determined)
- Incentives to be invested: To be determined

# Locomotives: Enhance Outreach and Access to Incentive Funding for New Locomotives

- Type of Strategy: Incentive
- Purpose: To provide increased outreach and access to incentive funding for the replacement of older, high polluting locomotives operating within and surrounding Shafter with new clean engine technologies.
- Goal: Replace 2 Tier 0 locomotives with Tier 4 locomotives
- Target: 126 tons NO<sub>x</sub>, 2.8 tons PM<sub>2.5</sub> (based on average emission reductions expected per project)
- Incentives to be invested: \$5,200,000 (funding up to \$2,600,000 per locomotive)

# Locomotives: Provide Incentives for Electric Railcar Mover/Switchers for Rail Facilities

- Type of Strategy: Incentive
- Purpose: To provide increased outreach and access to incentive funding for the replacement of older, high polluting locomotives operating within and surrounding Shafter with new clean engine technologies.
- Goal: Replace 3 older, high-polluting switchers with new, cleaner, advanced technology/hybrid switcher locomotives at railyards and other facilities within Shafter
- Target: 57 tons NO<sub>x</sub>, 1.5 tons PM<sub>2.5</sub> (based on average emission reductions expected per project)
- Incentives to be invested: \$4,100,000 (funding up to \$1,340,875 per locomotive)

# Committee Ideas Not Proposed for CERP

- **CSC Suggestion:** Heavy duty trucks using Laredo Hwy through the two stop signs adjacent to Golden Oak Elementary should be rerouted
- **District Response:** As the District does not have land-use authority, the District has made available to the responsible agencies all Committee comments regarding land-use that have been presented for potential inclusion into the CERP
  - District staff hope to provide the City's input on this comment in the Shafter Community Emissions Reduction Program

# Older/High Polluting Cars

# Passenger Cars: Host Local Tune-In Tune-Up Events Within Community

- Type of Strategy: Incentive
- Purpose: To host local Tune In Tune Up events with the community to reduce emission from older, high polluting cars
  - Program provides incentives for emission related repairs of high emitting vehicles through weekend Tune In Tune Up events
- Goal: Funding currently available in District Budget for at least one event in community, increase community participation in the program to repair high emitting vehicles, find funding to hold additional events within community boundaries
- Target: 4.6 tons NO<sub>x</sub>, 3.1 tons VOCs (based on average emission reductions expected per project)
- Incentives to be invested: \$400,000 for events and 500 vehicle repairs

# Passenger Cars: Provide Enhanced Outreach and Access to Incentive Options

- Type of Strategy: Incentive
- Purpose: To provide enhanced outreach and access to financial incentives to replace older autos in the community through the District's Drive Clean in the San Joaquin program
- Goal: Funding currently available in District Budget, increase community participation in the program to replace at least 100 high emitting vehicles operating in Shafter with lower-emissions or zero-emissions (electric) vehicles
- Target: 0.9 tons NO<sub>x</sub>, 0.03 tons PM<sub>2.5</sub>, and 0.21 tons VOCs (based on average emission reductions expected per project)
- Incentives to be invested: \$725,000 to replace 100 vehicles

# Passenger Cars: Provide Incentive Funding For Electric Vehicle Infrastructure

- Type of Strategy: Incentive
- Purpose: To provide incentive funding to support the deployment of electric vehicle charging infrastructure in the community
- Goal: Increase participation in the program to deploy 17 new electric vehicle chargers within the community in order to support electric vehicle deployment
- Target: Support emission reductions associated with electric vehicle deployment
- Incentives to be invested: \$100,000 for 17 electric vehicle chargers

# Passenger Cars: Increase Educational Training for Electric Vehicle Mechanics

- Type of Strategy: Incentive
- Purpose: To increase educational training for electric vehicle mechanics and to support the deployment of additional electric vehicle repair facilities in the community as feasible
- Goal: Increase participation in electric vehicle mechanics training that would provide services to vehicles operating within the community
- Target: Support emission reductions associated with electric vehicle deployment
- Incentives to be invested: \$30,000 for 2 training sessions

# Passenger Cars: Evaluate Feasibility of Ride Share Programs For Community

- Type of Strategy: Outreach/Incentive
- Purpose: To educate area residents on availability of ride share program incentives, evaluate the feasibility of additional ride share programs and/or incentives for ride sharing
- Goal: Leverage existing ride share programs in the Valley for expansion into the Shafter community
- Target: Reduction in PM and NOx (quantity of reductions to be determined)
- Incentives to be invested: \$250,000 to support ride sharing in the Shafter area

# Industrial Sources

# Flares: Amend Rule 4311 to Require Ultra-low NOx controls where Technologically & Economically Feasible

- Type of Strategy: Regulatory
- Purpose: To amend Rule 4311 to require ultra-low NOx flare emission limitations for existing and new flaring activities to the extent that such controls are technologically achievable and economically feasible
  - District has already initiated rule development process, with rule adoption anticipated in 2020
- Goal: Reduce NOx emissions from flares subject to requirements of amended Rule 4311 in Shafter
- Target: Estimated reduction of 1.5 tons NOx per year (flares do not produce significant PM2.5 emissions)

# Stationary Sources: Evaluate feasibility of funding further emissions reductions from oil and gas production operations

- Type of Strategy: Incentive
- Purpose: To evaluate the feasibility of an incentive program for oil and gas production operations to fund installation of technologies that further reduce emissions
- Goal: Work with oil and gas production operations in the Shafter area to identify potential emission reduction opportunities, through examining the feasibility of the following strategies, identifying available grant funding to assist implementation:
  - Electrifying pump jacks that are currently operating with internal combustion engines
  - Other emissions sources identified for committee consideration moving forward
- Target: Reductions in PM 2.5 and combustion air toxics

# Stationary Sources: Pilot Training Program for Conducting Self-Inspections at Gas Stations

- Type of Strategy: Compliance Assistance
- Purpose: To limit the potential for air quality impacts associated with the vapor recovery defects at gasoline dispensing stations
- Goal: Develop a new pilot training program to instruct gas station operators on conducting thorough self-inspections of the vapor recovery systems to aid in the identification and timely repair of vapor recovery system defects. The District will offer to provide the hands on training to each gas station operator in the community.

# Stationary Sources: Enhanced Inspection Frequency

- Type of Strategy: Enforcement
- Purpose: To limit the potential for air quality impacts associated with the failure to comply with emission standards established by District permit, rule, or regulation
- Goal: District staff will inspect each facility that has had an emission violation over the past 3 years at least twice per calendar year for the next 5 years or until the facility has 4 consecutive inspections without an emission violation, whichever occurs first

# Stationary Sources: Provide Incentives to Install Advanced Control Technology

- Type of Strategy: Outreach, Incentive
- Purpose: To provide incentives for stationary sources within the community to install advanced control technology, beyond existing controls, that would not otherwise be economically feasible to install
  - State currently developing funding guidance for such projects
  - Will identify types of facilities not otherwise identified in CERP, work with willing partners to implement controls
- Goal: Funding availability, and number and type of projects, will be developed, with input of steering committee, when state funding guidelines are available for stationary source funding
- Target: Reductions in PM<sub>2.5</sub> and/or Toxic Air Contaminants (quantity of reductions to be determined)

# Committee Ideas Not Proposed for CERP

- **CSC Suggestion:** No new oil wells should be drilled within 2,500 feet of residents, schools and all environmental sensitive locations
- **District Response:** As the District does not have land-use authority, the District has made available to the responsible agencies all Committee comments regarding land-use that have been presented for potential inclusion into the CERP
  - District staff hope to provide the City’s input on this comment in the Shafter Community Emissions Reduction Program

# Residential Burning

# Residential Wood Burning: Provide Enhanced Incentives to Replace Wood Burning Devices

- Type of Strategy: Incentive
- Purpose: To provide enhanced financial incentives to replace existing wood burning devices and pellet stoves with natural gas or electric technologies
- Goal: Increase outreach and access to incentive funding resulting in increased participation in the program to replace 200 wood burning devices in the community with cleaner alternatives
- Target: 98 tons PM<sub>2.5</sub> (based on average emission reductions expected per project)
- Incentives to be invested: \$600,000

# Residential Wood Burning: Educate Public About Harmful Impacts

- Type of Strategy: Outreach & Education
- Purpose: To educate community residents about the impacts of wood burning and resources available to help transition to natural gas and electric devices
  - Includes information on Check Before You Burn program/Rule 4901
- Goal:
  - Increase in Burn Cleaner applications in Shafter
  - Host 4 public workshops at Shafter branch of Kern County Library/Shafter Learning Center
  - Circulation of infographics in at least 6 community spaces

# Wood Burning Fireplaces/Heaters: Enhanced Enforcement of Wood Burning Curtailments

- Type of Strategy: Enforcement
- Purpose: To limit the potential for localized PM<sub>2.5</sub> impacts associated with the failure to comply with mandatory episodic wood burning curtailments under District Rule 4901
- Goal: District staff will conduct at least four hours of surveillance within the Shafter community on each declared curtailment day for the next 5 winter seasons to enforce the requirements of Rule 4901

# Residential Open Burning: Reduce Illegal Activity

- Type of Strategy: Outreach
- Purpose: To reduce illegal burning of residential waste through outreach and education
- Goal:
  - Host 4 workshops at libraries, community centers, health centers, and schools on the health effects/air quality impacts of burning trash
  - Invest in geo-targeted outdoor ads in areas with frequent violations
    - 2 billboards
    - 2 street furniture (bus shelters, kiosks, benches, phone booths, etc.)
    - 1 bus routed through relevant areas (zero-emissions preferred)
  - 2 postcard mailers to county residents in rural areas

# Residential Open Burning: Enhanced Enforcement to Reduce Illegal Burning of Residential Waste

- Type of Strategy: Enforcement
- Purpose: To limit the potential for localized PM2.5 and toxic impacts associated with illegal open burning of residential waste
- Goal: In addition to the District's existing surveillance and complaint response efforts, District staff will conduct targeted surveillance efforts within the Shafter community and surrounding areas at least once per quarter for the next 5 years

# Land Use/Urban Sources

# Solar Power: Seek incentives for local businesses and homeowners to install solar power and energy storage

- Type of Strategy: Incentive
- Purpose: To work with the Public Utilities Commission and utilities to provide incentives for local businesses and homeowners to install rooftop/community solar power and energy storage systems
  - State currently developing funding guidance for such projects
- Goal: Funding available, and number and type of projects will be developed, with input of Steering Committee, when state funding guidelines are available
- Target: To be determined, working with PUC

# Commercial Cooking: Further reduce particulate emissions from commercial underfired charbroilers

- Type of Strategy: Incentives (with regulatory backstop)
- Purpose: To provide incentives to further reduce particulate emissions from large restaurants that use underfired charbroilers
- Goal:
  - Partner with willing restaurants and provide \$150,000 in incentive funding per restaurant for the installation of control equipment to reduce particulate emission from underfired charbroilers
  - Provide enhanced outreach and education to local restaurants regarding health impacts and availability of funding for installation of controls
- Target:
  - Invest up to \$300,000 and achieve approximately 1 ton of PM<sub>2.5</sub> per year in emissions reductions from underfired charbroilers in community

# Land Use/Sustainable Development: Implement Projects that Reduce VMT

- Type of Strategy: Partnership
- Purpose: To reduce vehicle miles traveled (VMT) in the community through measures that promote active transport and increase the walkability of community neighborhoods.
- Goal: Work with City of Shafter to obtain feedback on opportunities for community members to be involved in land use planning processes. City of Shafter has committed to notify community members about upcoming meetings that address the development of the Environmental Justice element of the City's General Plan.
- Target: To be determined by City of Shafter through public planning process.

# Land Use: Support Planning and Development of Clean Fueling Infrastructure

- Type of Strategy: Advocacy/Incentives
- Purpose: To provide support for planning and development of fueling infrastructure for zero and near-zero emission vehicles to support broader deployment of clean vehicles
- Goal: Provide District support to broaden fueling infrastructure network for zero and near-zero-emission vehicles to facilitate broader deployment and prioritize funding through existing District programs, including installing 10 electric vehicle charging stations, and one alternative fuel fueling station.
- Incentives to be invested:
  - Charge-Up: 10 EV charging stations @ up to \$50k = \$500k;
  - Alternative Fuel Fueling Station: 1 station @ up to \$1,000,000

# New Construction: Provide assistance during the CEQA process

- Type of Strategy: Land use
- Purpose: To provide assistance during the California Environmental Quality Act (CEQA) process with guidance on how the project may impact air quality in the Valley, and information on how air pollution impacts can be reduced
- Goal: Work with Lead Agencies and project proponents to enhance project designs in the early stages of the planning process for a better overall project with minimized impact on air quality, by early identification of feasible mitigation measures
- Target: Reductions in criteria pollutants and/or Toxic Air Contaminants

# Road Dust: Evaluate increasing frequency of street sweeping

- Type of Strategy: Partnership
- Purpose: To evaluate air quality impacts and feasibility of increasing frequency of street sweeping along freeways and streets
- Goal: If found to be effective in reducing particulate emissions, partner with other entities (i.e. City of Shafter, Kern County, and California Department of Transportation) to identify opportunities to increase street sweeping efforts in the community

# Road Dust: Evaluate feasibility of road paving improvements

- Type of Strategy: Partnership
- Purpose: To identify opportunities to reduce dust from paved and unpaved roads in the community through road paving improvements
- Goal: Partner with other entities (including City of Shafter, Kern County, and Kern Council of Governments) to identify opportunities, such as Congestion Mitigation and Air Quality funding, to improve road paving efforts in the community where most needed to reduce health impacts

# Lawn and Garden: Provide Enhanced Incentives for Replacement of Residential Lawn and Garden Equipment

- Type of Strategy: Incentive
- Purpose: To provide increased incentives for the replacement of residential lawn and garden equipment in the community through the District's Clean Green Yard Machines Program
- Goal: Increase outreach and access to incentive funding for 100% of equipment cost, resulting in increased participation in the program to replace 280 gas powered lawn and garden equipment units in the community with zero emission alternatives
- Target: Reductions in PM and NOx (quantity of emission reductions to be determined)
- Incentives to be invested: \$100,000 to replace 280 units

# Lawn and Garden: Provide Enhanced Incentives for Replacement of Commercial Lawn and Garden Equipment

- Type of Strategy: Incentive
- Purpose: To provide enhanced outreach and access to incentive program for the replacement of commercial-scale lawn and garden equipment in the community through the District's Clean Green Yard Machines program (available to lawn care providers and public agencies)
- Goal: Increase outreach and access to incentive funding resulting in increased participation in the program to replace 30 commercial grade gas powered lawn equipment units with zero emission alternatives
- Target: Reductions in PM and NOx (quantity of emission reductions to be determined)
- Incentives to be invested: \$40,000 to replace 30 units

# Public Fleets: Enhance Outreach and Access to Incentive Funding for Public Fleet Vehicles

- Type of Strategy: Incentive
- Purpose: To provide increased outreach and access to incentive funding for the replacement of older, high polluting public fleet vehicles with cleanest available vehicles operating within and surrounding Shafter.
- Goal: Work closely with public agencies, including City of Shafter and Kern County, to replace light-duty vehicles through existing District incentive programs, including the Public Benefit Grants Program.
- Target: Reductions in PM2.5 and/or Toxic Air Contaminants (quantity of reductions dependent on vehicle type and program)
- Incentives to be invested: \$500,000. Per-vehicle incentives will be dependent on vehicle type and program

# Exposure Reduction Strategies

# HAL Schools: Increase Participation

- Type of Strategy: Outreach, Exposure Reduction
- Purpose: To reduce children's exposure to unhealthy air by increasing enrollment of schools in the Healthy Air Living Schools program
- Goal:
  - Meet with staff from both school districts in Shafter
  - Seek adoption of ROAR guidelines at both school districts in the area
  - Attend 4 school events, parent organization meetings
  - Partner with district-based family services to offer info and materials

# Air Filtration Systems in Community Schools

- Type of Strategy: Incentive, Exposure Reduction
- Purpose: To incentivize the purchase and installation of advanced air filtration systems in schools and daycares
- Goal: Pilot program- Meet with administrators/staff to survey current equipment; help fund upgrades to high-efficacy filters when HVACs permit; fund portable air cleaners for schools with older HVACs
- Incentives to be invested: Approximately \$100,000 for WINIX air cleaners, plus replacement HEPA filters and MERV-14 filters

# Exposure Reduction: Mitigate indoor exposure to air pollution through weatherization and enhanced energy efficiency

- Type of Strategy: Incentive, Exposure Reduction
- Purpose: To reduce indoor exposure to air pollution in residences by incentivizing energy efficient weatherization upgrades
- Goal: District to work with partners at California Department of Community Services & Development to assist low-income community members in accessing state's Low Income Weatherization Program (LIWP) and Weatherization Assistance Program (WAP) incentives
- Target: Host 1 community meeting where California Department of Community Services & Development attends and educates community on benefits of weatherization and assists with enrolling community members in LIWP or WAP

# Exposure Reduction: Mitigate indoor exposure to air pollution through education

- Type of Strategy: Outreach, Exposure Reduction
- Purpose: To reduce indoor exposure to outside air pollution
- Goal: District to educate community on health benefits of upgrading to high-efficiency filters, work with California's Low Income Home Energy Assistance Program (LIHEAP) to offset associated energy costs
- Target: Host 1 community meeting where California Department of Community Services & Development attends and educates community on benefits of improved filtration and assists with enrolling community members in LIHEAP

# Urban Greening/Forestry: Identify opportunities for increased urban greening and forestry in the community

- Type of Strategy: Partnership, Exposure Reduction
- Purpose: To increase urban greening and forestry in the community through partnerships with other entities
- Goal: Partner with other entities (i.e. City of Shafter, Natural Resources Agency, CAL Fire) to identify new or existing resources or programs (Per Capita Program, Urban & Community Forestry Grant Program) that can provide funding to increase urban greening and forestry in the community
- Target
  - Quantification of air quality benefits from urban greening small, variable
  - Studies have shown several other community benefits, including some reduction of PM2.5 and VOC's, heat island mitigation, and community beautification

# Vegetative Barriers: Provide Incentives for Installation of Vegetative Barriers Around/Near Sources Of Concern

- Type of Strategy: Incentive, Exposure Reduction
- Purpose: To provide incentives for the installation of vegetative barriers around/near sources of concern to reduce particulate matter, odor, and other emissions, as feasible
- Goal: Work closely with the community, city, California Department of Transportation, Natural Resource Conservation Service and others to investigate and identify areas suitable for installation of vegetative barriers. Type of projects will be developed with input of steering committee, and funded as funding sources are identified
- Target: Quantity of reductions to be determined

# Idling-Reduction Strategy: Protect Sensitive Receptors

- Type of Strategy: Outreach, Exposure Reduction
- Purpose: To reduce the exposure of sensitive individuals to vehicle emissions at schools and other areas serving children and seniors
- Goal:
  - Distribute 10 sets of English/Spanish “No Idling” signs to schools, libraries, senior centers, parks, nursing homes, pediatricians, daycares, and medical centers
  - Develop and distribute idle-reduction infographics at each location
  - Develop and deliver 4 presentations about the impacts of vehicle exhaust, HAL Schools and available resources

# Community Air Quality Outreach Strategy

- Type of Strategy: Outreach, Exposure Reduction
- Purpose: To provide additional information to the community about real-time air quality conditions and measures the public can take to protect themselves during poor air quality episodes
- Goal:
  - Launch social media campaigns based on myRAAN, air quality education (Facebook, Twitter, Instagram)
  - Partner with local civic organizations and other community organizations to host workshops on a variety of air quality topics at libraries, community centers, health centers, and schools.
- Target: Increased community awareness regarding air quality conditions and available tools through myRAAN registrations, app downloads, social media followers

# Sharing Clean Air Efforts and How Communities Can Get Involved

- Type of Strategy: Outreach
- Purpose: To increase awareness of community air quality improvement programs and available incentives by hosting outreach events within the community
- Goal:
  - District will work with community to host workshops and symposiums to share air quality information on air quality improvement topics at libraries, community or senior centers, health centers, and schools. Topics may include CGYM, Burn Cleaner, DCSJ, TITU, HAL Schools

# Contact Information

AB 617 contacts and information at Valley Air District:

[AB617@valleyair.org](mailto:AB617@valleyair.org)

Jaime Holt Cell: (559) 309-3336

[www.valleyair.org/community](http://www.valleyair.org/community)

General Air District Contacts and Information:

Fresno office (559) 230-6000

Modesto office (209) 557-6400

Bakersfield office (661) 392-5500

[www.valleyair.org](http://www.valleyair.org)

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air quality info.



# City of Shafter

## Community Emissions Reduction Program (CERP) Development

### Additional Strategies:

**California Air Resources Board (CARB)**

# Mobile Sources: Advanced Clean Trucks

- Type of Strategy: Regulatory
- Purpose: To develop and consider proposals for new approaches and strategies that may transition to zero emission technology those truck fleets that operate in urban centers, have stop and go driving cycles, and are centrally maintained and fueled
- Goal: Transition to zero emission
- Target: Coming soon

# Mobile Sources: Locomotives

- Type of Strategy: Regulatory
- Purpose: To reduce emissions from idling freight and passenger rail activities, and reduce emissions from the older, dirtier locomotives currently operating in California
- Goal: Reduced idling of locomotives and replacement of older, dirtier locomotives
- Target: Too early to quantify

# Mobile Sources: Small Off-Road Engines

- Type of Strategy: Regulatory
- Purpose: To consider new standards for small off-road engines (SORE), which are spark-ignition engines rated at or below 19 kilowatts and used primarily for lawn, garden, and other outdoor power equipment
- Goal: Transition to zero emission
- Target: Coming soon

# Mobile Sources: Truck & Bus Idling Study

- Type of Strategy: Exposure Reduction
- Purpose: The California Air Resources Board, in partnership with the Steering Committee and the Air District, will conduct a pilot study to assess local idling impacts from trucks and buses
- Goal: To assess local idling impacts from trucks and buses
- Target: Not quantifiable – study only

## Mobile Sources: Truck & Bus Rule Supporting Actions

- Type of Strategy: Exposure Reduction, Enforcement
- Purpose: Develop and propose new, supporting actions to the Truck and Bus Regulation to address in-use emissions and compliance, and to decrease engine deterioration. Potential actions include amendments to warranty and useful life provisions, adding a lower in-use emissions performance level, and increasing inspections in the Shafter community
- Goal: Reduce diesel PM
- Target: Too early to quantify

## Area wide Sources: Short-Lived Climate Pollutant Plan

- Type of Strategy: Incentive, Outreach
- Purpose: To reduce dairy and other livestock manure methane emissions through financial incentives, collaboration to overcome barriers, development of policies to encourage renewable natural gas production where appropriate as a pollution control strategy, and other market support
- Goal: Reduce methane emissions
- Target: Too early to quantify