

Good afternoon and welcome to the  
Carl Moyer Grant Program  
Public Workshop

The presentation will begin at 2 pm

Hosted by the Feather River Air Quality  
Management District

Thursday February 18, 2021

# Agenda

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- ▶ Welcome & Introductions
- ▶ Public Workshop to Be Recorded and Posted to Website
- ▶ What is the Carl Moyer Program
- ▶ Program Overview
- ▶ Regulatory Compliance
- ▶ Off-Road Equipment Project Categories
- ▶ Destruction Requirements
- ▶ Other Project Types
- ▶ Resources and Contact Information
- ▶ Update on FARMER Program
- ▶ Question/Answers



# Carl Moyer Memorial Air Quality Standards Attainment Program

# Carl Moyer Memorial Air Quality Standards Attainment Program

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- ▶ Since 1998 Carl Moyer Program has provided incentive grants for cleaner-than-required engines and equipment throughout California
- ▶ The program seeks to reduce emissions of oxides of nitrogen (NOx), particulate matter (PM), and reactive organic gas (ROG) which are necessary for California to meet its clean air commitments under the State Implementation Plan
- ▶ Public and private entities can apply
- ▶ Eligible projects include replacement, repower, or retrofit of off-road equipment used in construction, agriculture, mining, and stationary irrigation pump engines
- ▶ CARB's 2017 Carl Moyer Guidelines
- ▶ District Policy and Procedures Manual
- ▶ Projects are subject to oversight and audit by FRAQMD, CARB, DOF





# Program Overview

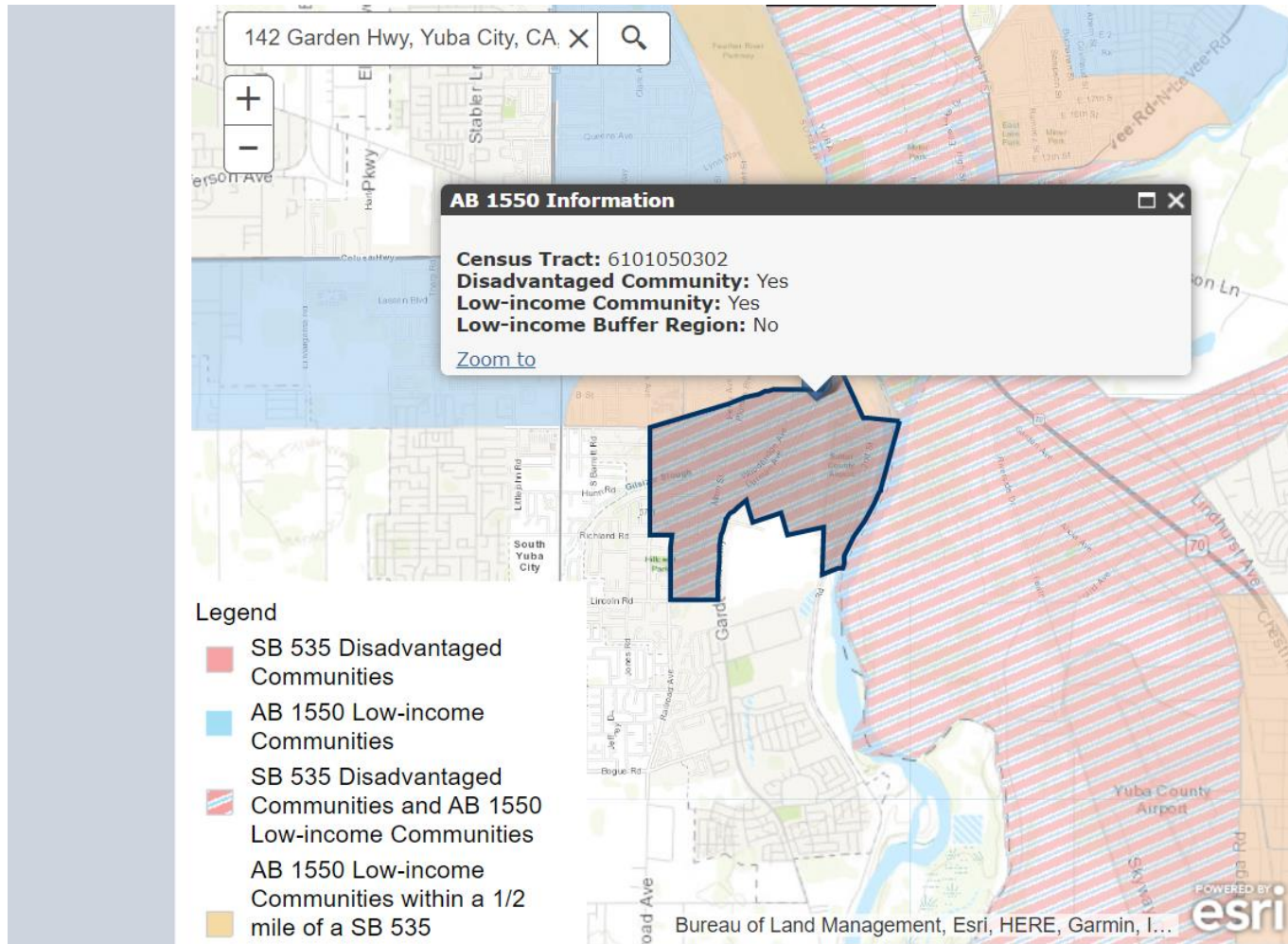
# General Requirements

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- ▶ Cannot pay for compliance with a regulation
  - ▶ Must be completed before compliance deadline
- ▶ Old engines/equipment must be operational
- ▶ Engine must be 25 horsepower or greater
  - ▶ If engine hp not known, can calculate based on:  $\text{Engine HP} = \text{PTO} \times 120$  percent
- ▶ Must operate 75% within California and own for previous 2 years
  - ▶ FRAQMD will only cover portion of usage in Yuba/Sutter counties
- ▶ Must be cost-effective
- ▶ Old engine/equipment must be destroyed
- ▶ Must be approved in program and have signed agreement before purchasing new engine/equipment



# Map of Disadvantaged/Low-income Communities



# Funding

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- ▶ Year 23 tentative award \$360,000
- ▶ Award amounts are based on % of cost, not by horsepower
  - ▶ Example: Repower with Tier 4 engine up to 85%; Off-Road Equipment Replacement up to 65%
- ▶ Maximum funding is \$180,000
- ▶ Eligible for funding: engines/equipment, installation for eligible hardware, transport costs
- ▶ Ineligible for funding: taxes, extended warranty, maintenance
- ▶ New engines/equipment purchased must match application; shop around prior to submitting Application





# Project Selection

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- ▶ Only one application per person/business/entity/farm
- ▶ Applications will be reviewed for completeness; completeness notification mailed or emailed
- ▶ All complete Applications received by 5:00 pm on Monday March 15, 2021, will be entered into random draw
  - ▶ **Incomplete Applications will not be entered into draw**
- ▶ If selected by random draw, project will be evaluated for cost-effectiveness and eligibility
- ▶ Tier 1 to Tier 4 replacement projects will be entered into random draw after Tier 0 to Tier 4 replacement projects and repower projects are funded



# Determining Cost-Effectiveness

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- ▶ The most C/E project achieves the largest emission reductions for the least amount of funding

- ▶ Factors involved in C/E calculation:

Emissions of old engine

Number of years under contract (project life)

Emissions of new engine

Cost of new engine/equipment

Hours per year engine is operated

- ▶ Cost-Effectiveness (\$/ton) = 
$$\frac{\text{grant amount (\$)} \times \text{CRF}}{\text{annual weighted surplus emission reductions}}$$

- ▶ CRF: Capital recovery factor

- ▶ Annual Weighted Surplus Emission Reductions (tons/Yr) = NO<sub>x</sub> Reductions + ROG Reductions + (20 x PM reductions)

- ▶ Weighted surplus emission reductions include deterioration products and adjustment factors

- ▶ Cost-Effectiveness will be calculated by District; Detailed instructions are in Carl Moyer Guidelines <http://www.arb.ca.gov/msprog/moyer/guidelines/current.htm>



# Tentative Timeline

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- ▶ Applications released January 15, 2021
- ▶ Public Workshop February 18, 2021
- ▶ Applications and all additional information due by 5:00 pm on Monday March 15, 2021
- ▶ Tentative award letters mailed May 2021
- ▶ Participant accept awards and schedule pre-inspection of existing engine/equipment with District May/June 2021
- ▶ District and Participant sign Agreement June/July 2021
- ▶ Participant orders new engine/equipment July 2021
- ▶ After new engine has been installed and is operational or new equipment has arrived and is ready for delivery to applicant...



## Timeline Continued

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- ▶ Schedule post-inspection (should be within 180 days of Agreement signing for replacement/repowers and one year for electric motors)
- ▶ Destroy old engine/equipment
- ▶ Submit W-9 tax form and invoices
- ▶ Payment will be issued to Participant
- ▶ 1099 issued for year payment was received
- ▶ First annual report mailed out year after project completion, and then every year throughout life of project (1 to 10 years)
- ▶ Own/operate engine/equipment per Agreement throughout life of project (1 to 10 years)



# Regulatory Compliance & Eligibility Charts

# Regulatory Compliance

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- ▶ Ag mobile equipment:
  - ▶ No regulation/compliance deadline for ag off-road mobile
- ▶ Ag stationary irrigation engines:
  - ▶ Uncontrolled, Tier 1, Tier 2, or Tier 3 engines replaced with a Tier 4 engine or electric motor may be eligible
  - ▶ Diesel must be registered per FRAQMD Rule 4.16
- ▶ Non-Ag portable and off-road mobile:
  - ▶ Uncontrolled, Tier 1, Tier 2, or Tier 3 engines replaced with a Tier 4 engine or electric motor may be eligible
  - ▶ Off-road mobile - DOORS; portable - PERP or District permit



# Off-Road Mobile Eligibility Chart

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Equipment Type	Subject to ARB Fleet Rule?	Funding Opportunities <sup>1</sup>
Mobile agricultural equipment	No	Engine repowers, retrofits and replacements
Cargo handling equipment at ports/ intermodal rail yards	Cargo Handling Equipment Regulation <sup>2</sup>	Limited opportunities.
All other equipment (e.g. construction, mining, rental, airport ground support and other industries)	Off-Road Regulation <sup>3</sup>	Small fleets: Opportunities exist through Dec. 31, 2025, after which fleet must show 100% compliance with the regulation. Medium fleets: No funding opportunities after Dec. 31, 2019. Large fleets: no opportunities after Dec. 31, 2016

1. Limited opportunities means a fleet's compliance status with the ARB regulation must be determined. Contact air district Moyer Program staff or consult fleet rule Carl Moyer Implementation Charts at: <http://www.arb.ca.gov/msprog/moyer/guidelines/supplemental-docs.htm> in addition to the Guidelines.
2. Regulation for Mobile Cargo Handling Equipment at Ports and Intermodal Rail Yards: <http://www.arb.ca.gov/ports/cargo/cargo.htm>
3. Regulation for In-Use Off-Road Diesel Vehicles <http://www.arb.ca.gov/msprog/ordiesel/ordiesel.htm>



# Diesel Ag Irrigation Engines Eligibility Chart

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Tier	HP	Registered As	Compliance Date	Project Type Eligible	Must be installed by
Tier 0, 1, 2	25-49	All	None	Diesel Engine or Electric Motor	N/A
Tier 1	50-750	Intermittent or Low-Use	2025	Tier 4 Diesel, SI Electric Motor	2024 2025
Tier 2	50-750	Intermittent or Low-Use	2025	Tier 4 Diesel, SI Electric Motor	2024 2025

Based on compliance deadlines in the Airborne Toxic Control Measure for Stationary Compression Ignition Engines, title 17, California Code of Regulations section 93115 and District Rule 4.16

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# Portable Non-Ag Diesel Engine Eligibility Chart

Engine Tier	HP	Subject to a Regulation?	Project Type Eligible	Notes
Portable Tier 0, 1, and 2	25-49	No	Repower, Retrofit or Replacement	Engines under 50 horsepower are not subject to the ATCMs and are eligible for Carl Moyer grants
Portable Tier 0	50-750	Yes, Portable ATCM	None	Tier 0 engines subject to Portable ATCM are not eligible for Moyer grants
Portable Tier 1	50-750	Yes, Portable ATCM	None	Tier 1 engines subject to Tier Phase-out Schedule must be retired by 1/1/2020, thus not eligible for Carl Moyer grants
Portable Tier 2	50-750	Yes, Portable ATCM	Tier 4 diesel or SI repowers and replacements	Small and Large Fleet funding opportunities possible

Based on compliance deadlines in the Portable Engine Airborne Toxic Control Measure, Title 17 CCR 93116 <http://www.arb.ca.gov/diesel/peatcm/peatcm.htm>



# Off-Road Equipment Project Categories

# Off-Road Projects - Overview

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- ▶ Mobile, portable and stationary off-road engines and equipment
- ▶ Off-road = not registered with DMV
- ▶ Compression-ignition and large spark-ignition engines
- ▶ Construction, agricultural, industrial industries
- ▶ Examples:
  - ▶ Agricultural equipment (irrigation pumps, bin carriers, orchard tractors)
  - ▶ Off-road non-farm CI equipment (excavators, skid steer loaders, rough terrain forklifts, off-highway tractors, rubber tired dozers)
  - ▶ Large spark-ignited equipment (forklifts)



# Off-Road Project Types

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- ▶ Repower – the replacement of the existing engine with a newer emission-certified engine or electric motor
- ▶ Retrofit – the installation of an ARB verified emission control system on an existing engine
- ▶ Equipment Replacement – the purchase of new or used equipment with an engine certified to the current emission standard to replace older equipment that must be scrapped



# Repower and Retrofit Projects

# Repower and Retrofit Projects

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- ▶ Off-Road Repower/Retrofit Application
- ▶ Repower awards up to 85% of the cost of the project
- ▶ Retrofit awards up to 100% of the cost of the project
- ▶ Project life between 1-10 years



# Required to Apply

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- ▶ Completed Application
- ▶ Proof of liability insurance for property on Application
- ▶ Itemized quote for new engine/motor
  - ▶ Can use any certified dealer/installer
- ▶ Executive order for new engine
- ▶ 24 months of historical usage (optional)
  - ▶ If not provided, estimate usage on Application and the project will be required to meet a minimum usage
- ▶ Regulatory compliance (DOORS, PERP) if applicable
- ▶ Co-funding information (if applicable)
- ▶ Zero emission repowers (except stationary ag) must have 3 year or 5,000 hour warranty



# Off-Road Equipment Replacement Projects



# Replacement Projects

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- ▶ One piece of off-road equipment can be replaced by one piece of new or used off-road equipment
- ▶ Old equipment must be Tier 0 (Generally older than 1996) or Tier 1
- ▶ Grant will pay up to 65% of the cost of the new equipment
- ▶ Project life between 3-10 years
- ▶ Replacement equipment must serve same function as old equipment (tractor for tractor, forklift for forklift)
- ▶ The cost of a cab or loader may be included in the grant amount if the original equipment has a cab or loader
  - ▶ If original equipment lacks a cab or loader applicant can cover entire cost of additional equipment



## Required to Apply

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- ▶ Completed Application
- ▶ Evidence of liability coverage
- ▶ Hour meter photograph
- ▶ Usage data
- ▶ Proof of ownership
- ▶ Proof of operational status
- ▶ Replacement engine Executive Order (from dealer)  
<http://www.arb.ca.gov/msprog/offroad/cert/cert.php>
- ▶ Replacement equipment price quote and spec sheet (from dealer)
- ▶ Warranty documents (from dealer)



# Liability Insurance/Photo of Hour Meter

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- ▶ Copy of liability insurance for business/farm
  - ▶ Does not need to list FRAQMD
  - ▶ Must match address on application
- ▶ Photograph of hour meter
  - ▶ Does not have to be working



# Annual Hourly Usage Is Required

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- ▶ Cost-effectiveness must be based on hours of operation
- ▶ Provide two years of annual usage on Application and attach documentation showing how usage was estimated
- ▶ Documentation could include employee time sheets linked to equipment usage, equipment service records with copies of receipts of supplies purchased, operational records, repair work orders from third party that provide a date and hour meter reading



# Proof of Existing Ownership

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- ▶ Copy of the Bill of Sale for old equipment from dealership/auction/or notarized private party OR
- ▶ Provide documentation for previous two years that specifically lists the equipment such as:
  - ▶ Tax depreciation logs
  - ▶ Property tax records
  - ▶ Bank appraisals for equipment
  - ▶ Equipment insurance records
  - ▶ Maintenance/service records with copies of receipts for purchase of supplies
  - ▶ General ledgers



# Operational Status

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- ▶ Copies of previous year:
  - ▶ Revenue or usage records with operational, standby, and down hours for equipment
  - ▶ Employee time sheets linked to equipment usage
  - ▶ Preventive maintenance records tied to specific usage hours for equipment with copies of receipts for purchase of supplies
  - ▶ Repair work orders from third party specific to equipment



## From Participating Dealer Obtain:

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- ▶ Itemized quote
- ▶ Warranty information
- ▶ Engine executive order
- ▶ Must purchase new equipment at District trained/approved dealership
  - ▶ List provided on Application
  - ▶ Not on the list? Call FRAQMD to sign up



# Required Warranty

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- ▶ Equipment replacement must have a 1 year/1600 hour warranty
- ▶ Used equipment must meet same warranty requirements
- ▶ Warranty must cover parts and labor
- ▶ Additional cost for warranty is not eligible for funding





# Invoice & Financing Documentation

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- ▶ Dealers provide itemized final invoice
- ▶ Participant may obtain financing for their portion of the equipment purchase only (>35% plus taxes)
- ▶ Documentation of financing must be provided to District



# Destruction Requirements

## Destruction of Old Engines/Equipment

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- ▶ Existing equipment must be delivered to an approved salvage yard within 30 days of receipt of new equipment
- ▶ Existing equipment can be destroyed after signing the contract and before receiving new equipment
- ▶ Salvage Certification Form will be mailed; bring with the equipment to the salvage yard
- ▶ List of participating salvage yards will be mailed



# Other Project Types

# Other Project Types

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- ▶ Infrastructure in support of off-road equipment
  - ▶ Electrical infrastructure for Ag irrigation motor
- ▶ Fire apparatus
- ▶ On-Road Trucks
  - ▶ Ag Trucks-FARMER
  - ▶ Other Trucks-
    - ▶ ARB <http://www.arb.ca.gov/msprog/moyer/voucher/voucher.htm>
    - ▶ SMAQMD SECAT, Goods Movement (Prop 1B) <http://airquality.org/mobile/index.shtml>
    - ▶ Other State and Federal programs linked on FRAQMD website <https://www.fraqmd.org/links-to-grants-offered-by-other-agencies>
  - ▶ Possible loans: [http://www.arb.ca.gov/msprog/truckstop/funding/loans\\_fa.htm](http://www.arb.ca.gov/msprog/truckstop/funding/loans_fa.htm)



# Resources and Contact Information

# Resources

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- ▶ District Planning Department
  - ▶ Completing a new Application, updating previous year Application to resubmit, or general program information
- ▶ District Engineering Department
  - ▶ Diesel Agricultural Engine Registration Program
- ▶ District Website
  - ▶ Applications, Frequently Asked Questions, Policy and Procedures Manual, ARB Statewide Guidelines
- ▶ Off-Road Equipment Dealers
  - ▶ Itemized quotes for engines and equipment for repower/retrofit/replacement projects; Executive Orders for engines; warranty information if needed
- ▶ CARB
  - ▶ 1-866-6-Diesel for information on diesel regulations



## FRAQMD Program Contacts:

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- ▶ Planning – Sondra Spaethe (530) 634-7659 ext 210, [sspaethe@fracmd.org](mailto:sspaethe@fracmd.org).
- ▶ Engineering – Robin Demma (530) 634-7659 ext 208, [rdemma@fracmd.org](mailto:rdemma@fracmd.org).
- ▶ FRAQMD website – [www.fraqmd.org](http://www.fraqmd.org)







# Funding Agricultural Replacement Measures for Emission Reductions Program

# FARMER Program

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- ▶ Funding Agricultural Measures for Emission Reductions Program
- ▶ Supported by California Climate Investments, a statewide program 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
- ▶ Year 1, 2, and 3 FARMER Program funding already allocated
- ▶ Ag trucks were funded under the first two years of FARMER
- ▶ CA State Legislature/Governor must allocate additional funding for FARMER
  - ▶ Governor's budget released had two additional years of funding for FARMER



# Thank you for joining us today!

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- ▶ Questions?
- ▶ Stop recording (it will be posted to website)
- ▶ Staff to remain online for additional questions

