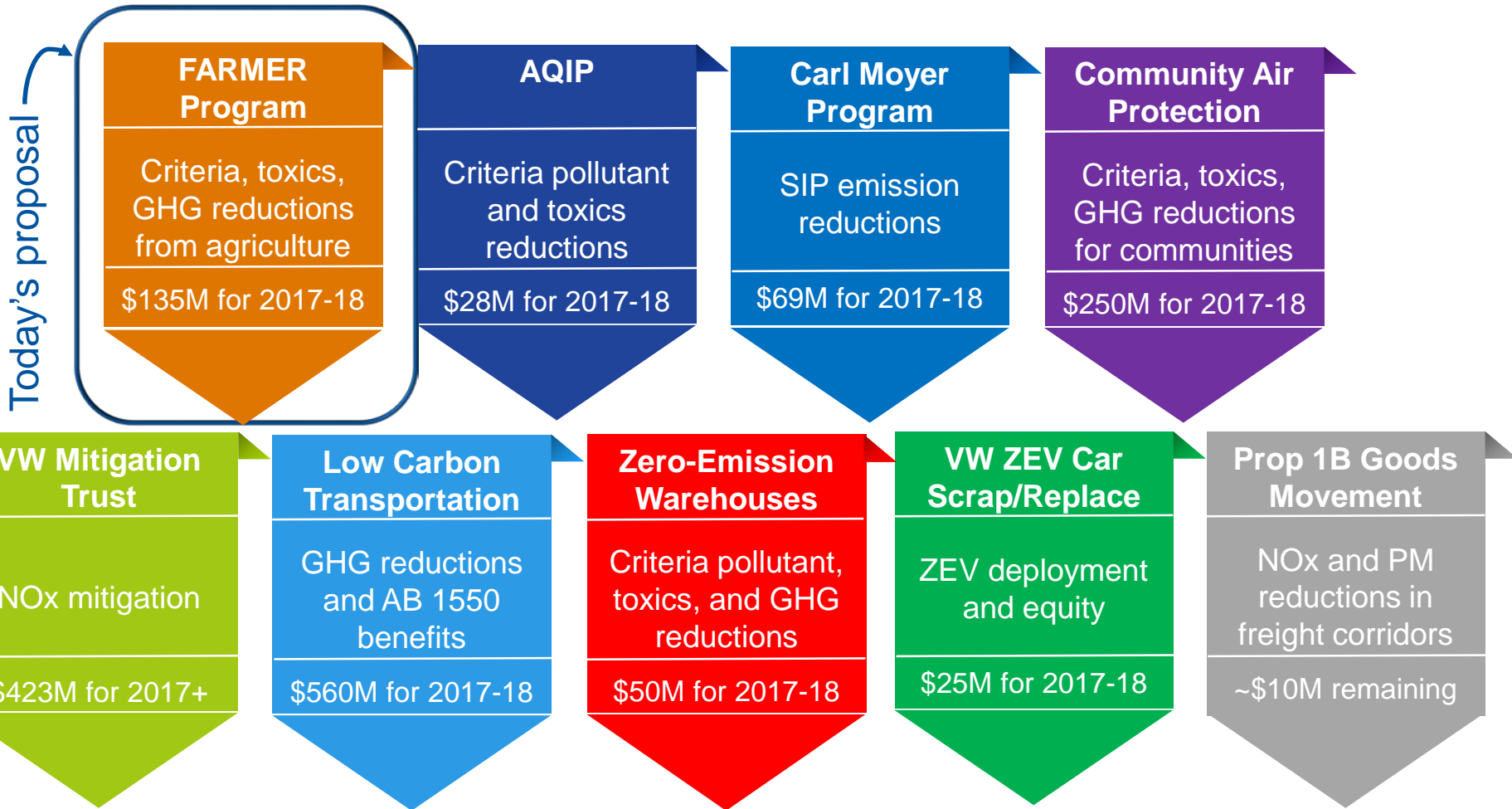




Funding Agricultural Replacement Measures for Emission Reductions (FARMER) Program

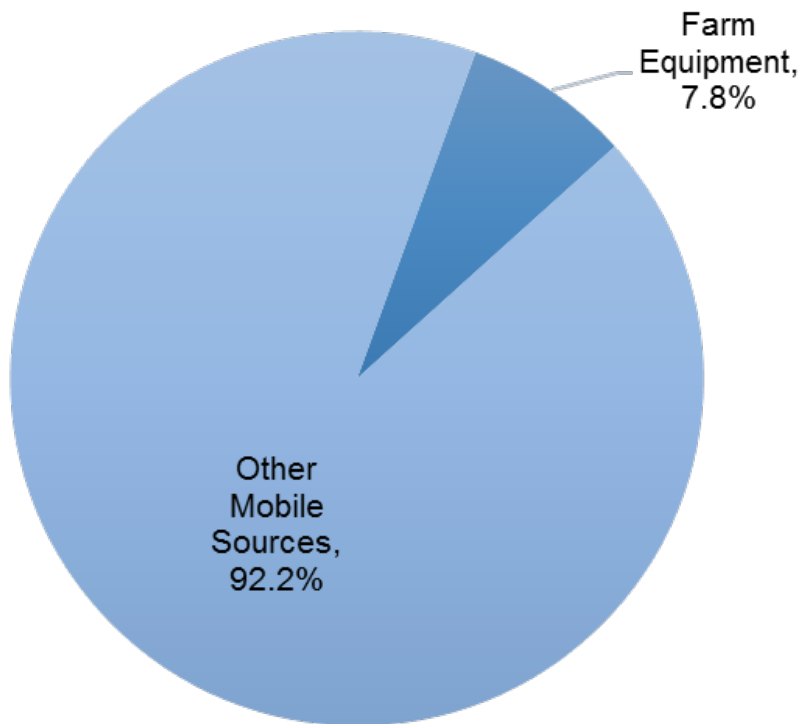
CARB Board Hearing: March 22-23, 2018

CARB's Incentive Portfolio

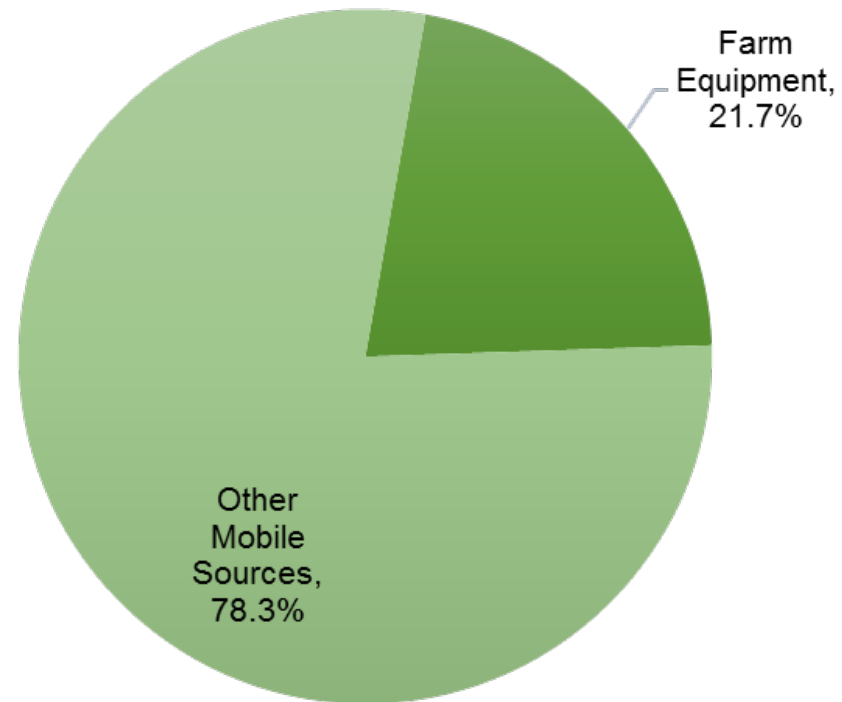


2018 NOx Emissions from Off-Road, Agricultural Equipment

Statewide NOx Emissions

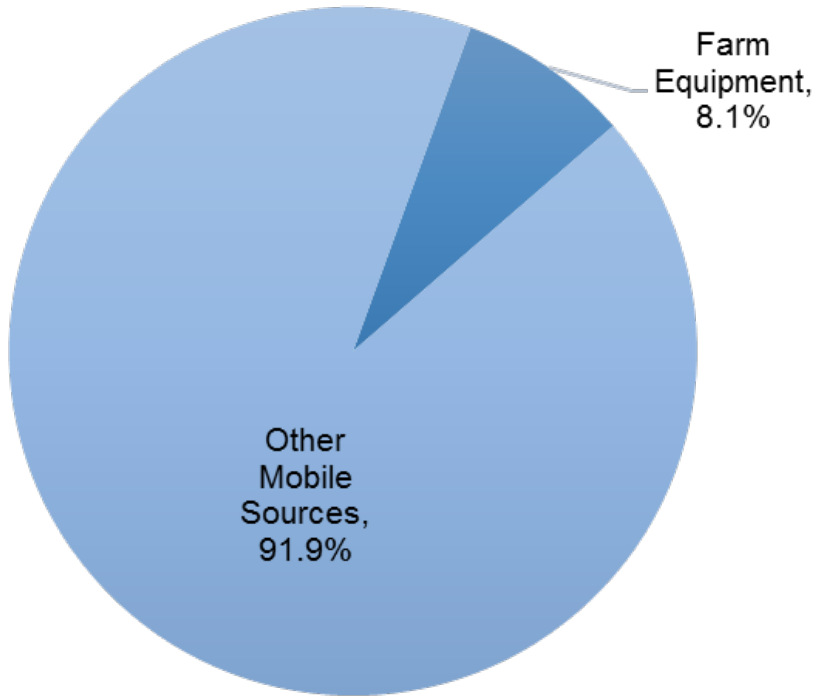


SJV NOx Emissions

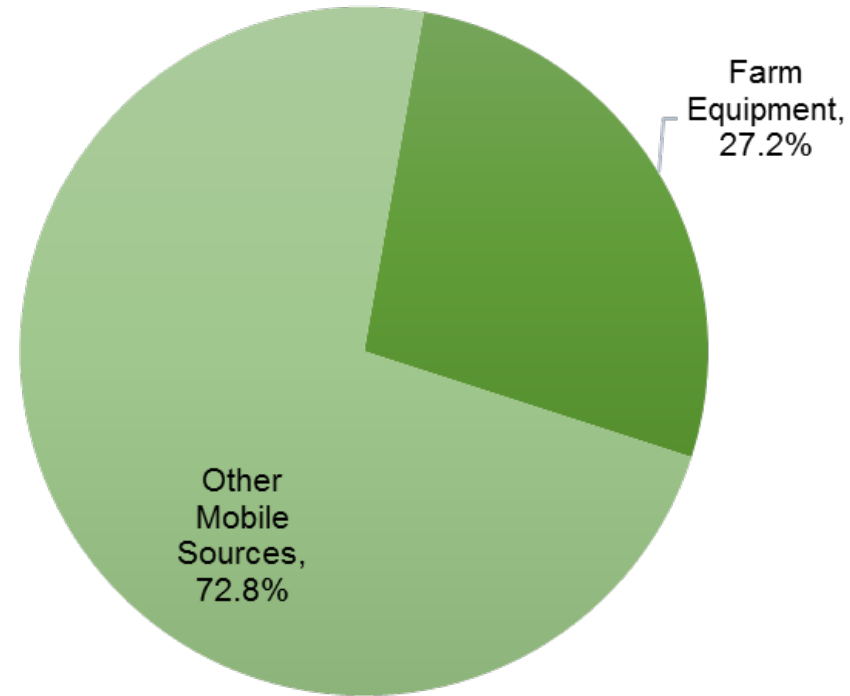


2018 PM 2.5 Emissions from Off-Road, Agricultural Equipment

Statewide PM 2.5 Emissions

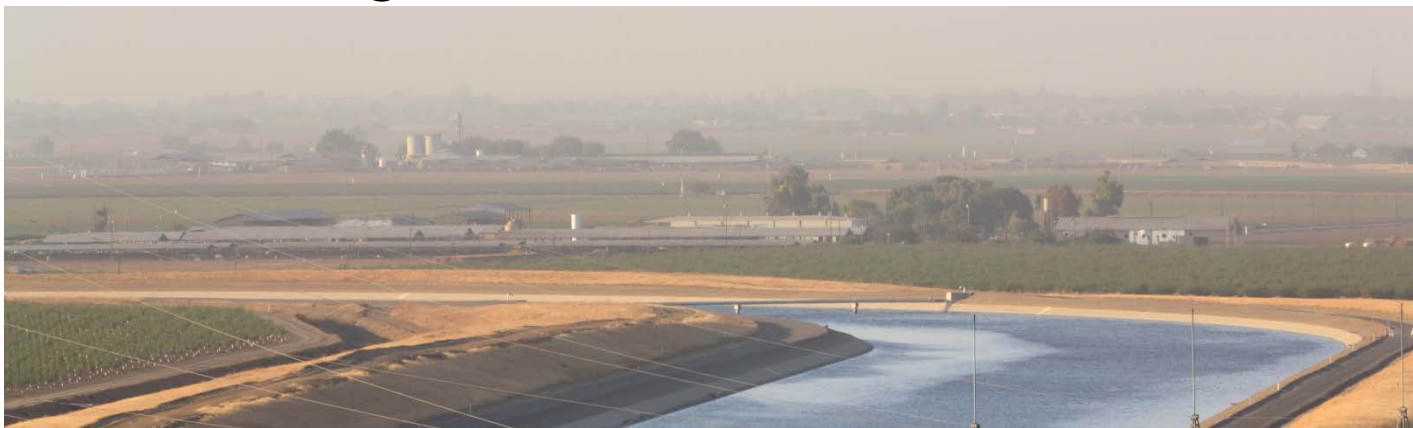


SJV PM 2.5 Emissions



Emission Reductions from Agricultural Operations

- Necessary to meet California's clean air and climate change goals
- Reduces near source exposure risks from criteria pollutants and toxic air contaminants
- Success of agricultural incentives



Statewide Success of Agricultural Investments

- California Investments:
 - Approximately **\$1 billion** invested over last 20 years
 - **50/50 match** with private investments
- Over **14,000** diesel agricultural engines replaced since 1998



Success of Agricultural Investments in the San Joaquin Valley

- San Joaquin Valley Investments:
 - Over **\$500 million** invested over last 20 years
 - **50/50 match** with private investments



- Over **7,500** diesel agricultural engines replaced since 1998
- Emission reductions exceeded existing SIP commitment

San Joaquin Valley APCD's Agricultural Trade-Up Pilot Project

- New, innovative incentive model involving a two-step transaction
- Began in 2016 as a \$500K pilot project
 - 19 transactions completed
- Expanded to a \$3 million pilot project in FY 2016-17
 - 8-10 tractors in repair
 - 16 potential matches





FARMER Program Funding Goals

Statutory Authority

- \$135 million was allocated to CARB in Assembly Bill (AB) 134 and AB 109 from three separate funding sources
- Reduce agricultural sector emissions by providing incentives for:
 - Agricultural harvesting equipment;
 - Heavy-duty trucks;
 - Agricultural pump engines;
 - Tractors; and
 - Other equipment used in agricultural operations.



Program Goals and Funding Requirements

- Criteria pollutant, toxics, and GHG emission reductions
- Reduce near-source exposure
- AB 1550 – disadvantaged and low-income community investment targets
- Streamlined reporting while maintaining verifiable emission reductions
- Focus on regions of the State with large numbers of agricultural equipment
- June 30, 2021 expenditure deadline



Program Administration and Oversight

- CARB's duties and responsibilities include:
 - Distributing funds;
 - Developing project criteria; and
 - Conducting program reviews and audits.
- Air district duties and responsibilities include:
 - Conducting outreach;
 - Project implementation; and
 - Complying with all administrative requirements.

Proposed Funding Distribution

- Proposed distribution based on Legislative direction and public feedback
- Allocation determined by agricultural equipment emissions and air quality attainment status:
 - 80 percent of funds to the San Joaquin Valley Air Pollution Control District
 - 20 percent of funds to remaining districts

Eligible Project Categories



Proposed Project Categories

- On-road, heavy-duty trucks;
- Off-road, mobile, diesel agricultural equipment;
- Off-road, mobile, large-spark ignition (LSI) equipment;
- Agricultural irrigation pump engines; and
- Electric agricultural utility terrain vehicles (UTVs).



Proposed Project Categories (cont.)

- Ability for CARB's Executive Officer to approve additional project categories or modify existing categories as needed



Next Steps

- Enter into grant agreements with districts in the spring and summer
- Funds available as early as Summer 2018
- Work with interested stakeholders to develop additional project categories



Recommendations

- Approve proposed FARMER Program Guidelines

