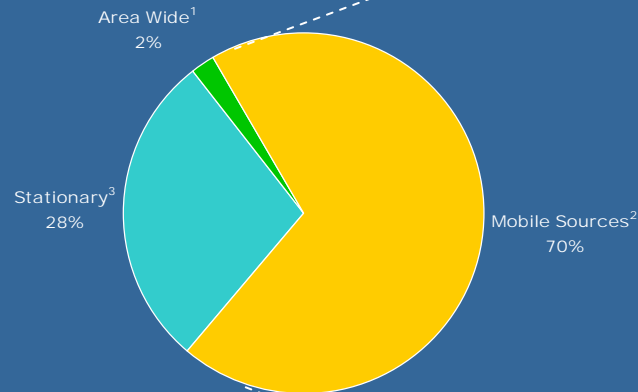




# San Joaquin Valley NOx Emissions

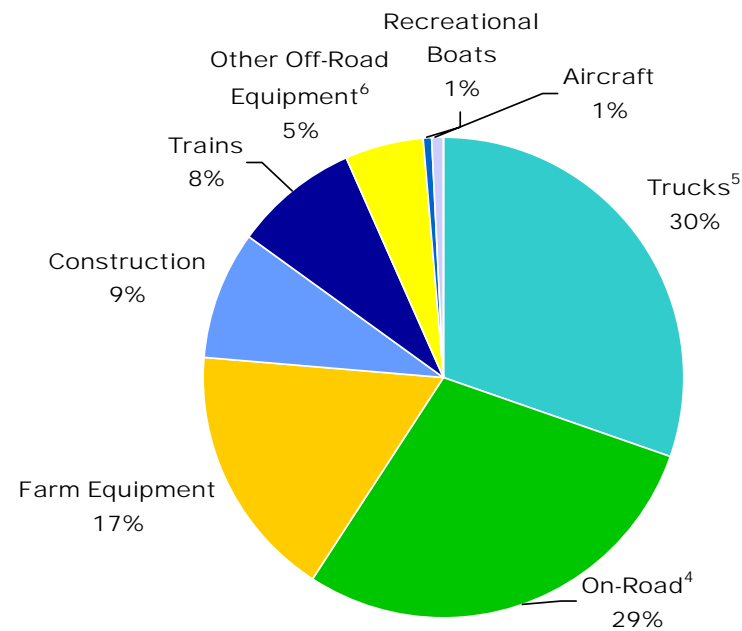
## San Joaquin Valley NOx Emissions

492 Total Tons Per Day



## Mobile Source NOx Emissions

342 Total Tons Per Day



Notes:

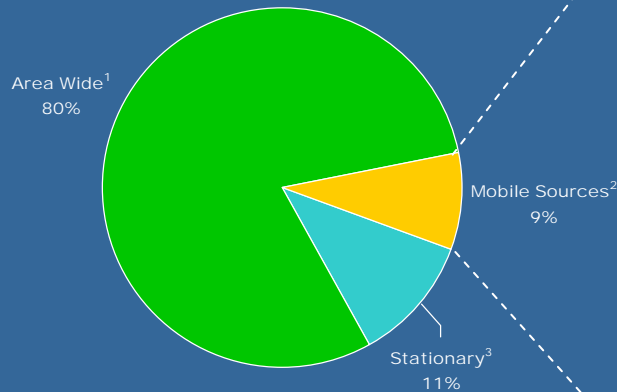
- 1) Includes all sources of dust and several burning processes
- 2) Includes vehicles, trucks, marine vessels, trains, aircraft, and other off-road equipment
- 3) Includes fuel combustion activities, waste disposal, cleaning and surface coatings, petroleum production, and industrial processes
- 4) Includes light and medium duty passenger and commercial cars and trucks, and buses
- 5) Includes Medium Heavy and Heavy Heavy Diesel trucks
- 6) Includes industrial equipment such as forklifts and cargo handling equipment, commercial equipment such as generator sets, and lawn and garden equipment

Source: California Air Resources Board 2004 Estimated Annual Average Emissions – <http://www.arb.ca.gov/aqd/almanac/almanac.htm>

# San Joaquin Valley PM 2.5 Emissions

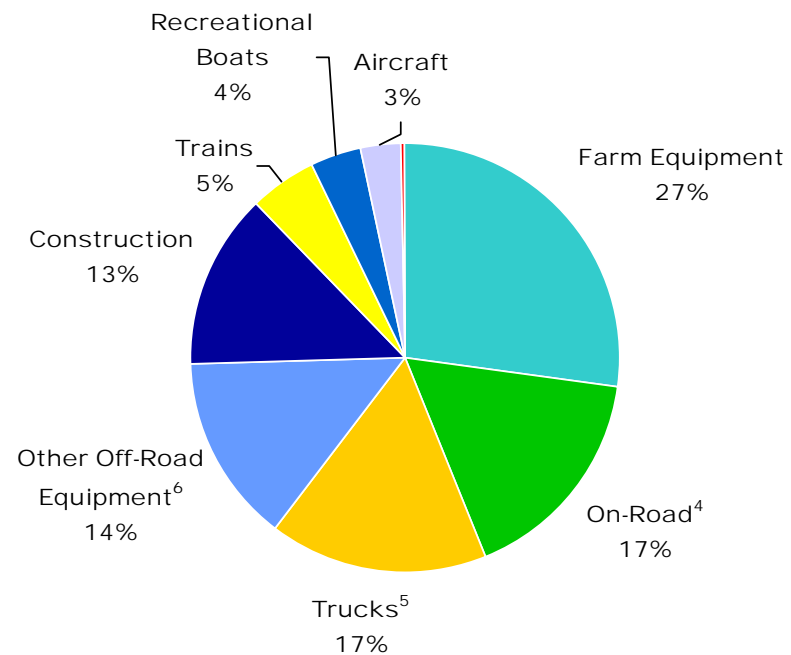
## San Joaquin Valley PM 2.5 Emissions

148 Total Tons Per Day



## Mobile Source PM 2.5 Emissions

13 Total Tons Per Day



Notes:

- 1) Includes all sources of dust and several burning processes
- 2) Includes vehicles, trucks, marine vessels, trains, aircraft, and other off-road equipment
- 3) Includes fuel combustion activities, waste disposal, cleaning and surface coatings, petroleum production, and industrial processes
- 4) Includes light and medium duty passenger and commercial cars and trucks, and buses
- 5) Includes Medium Heavy and Heavy Heavy Diesel trucks
- 6) Includes industrial equipment such as forklifts and cargo handling equipment, commercial equipment such as generator sets, and lawn and garden equipment

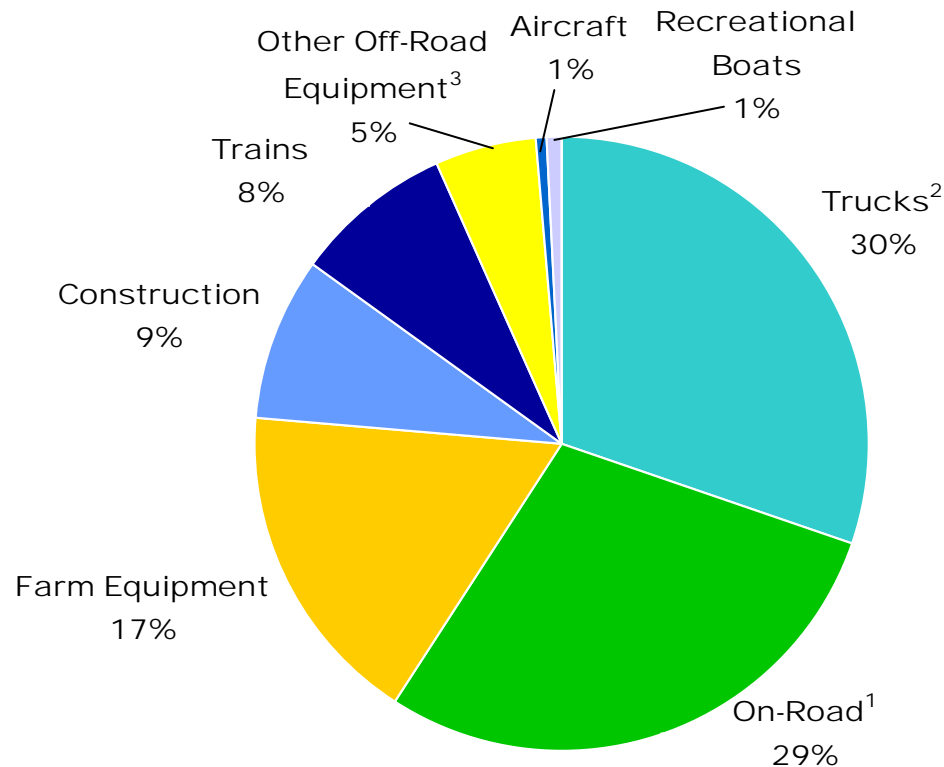
Source: California Air Resources Board 2004 Estimated Annual Average Emissions – <http://www.arb.ca.gov/aqd/almanac/almanac.htm>



# San Joaquin Valley NOx mobile source emissions

## San Joaquin Valley NOx Mobile Source Emissions

342 Total Tons Per Day



Notes:

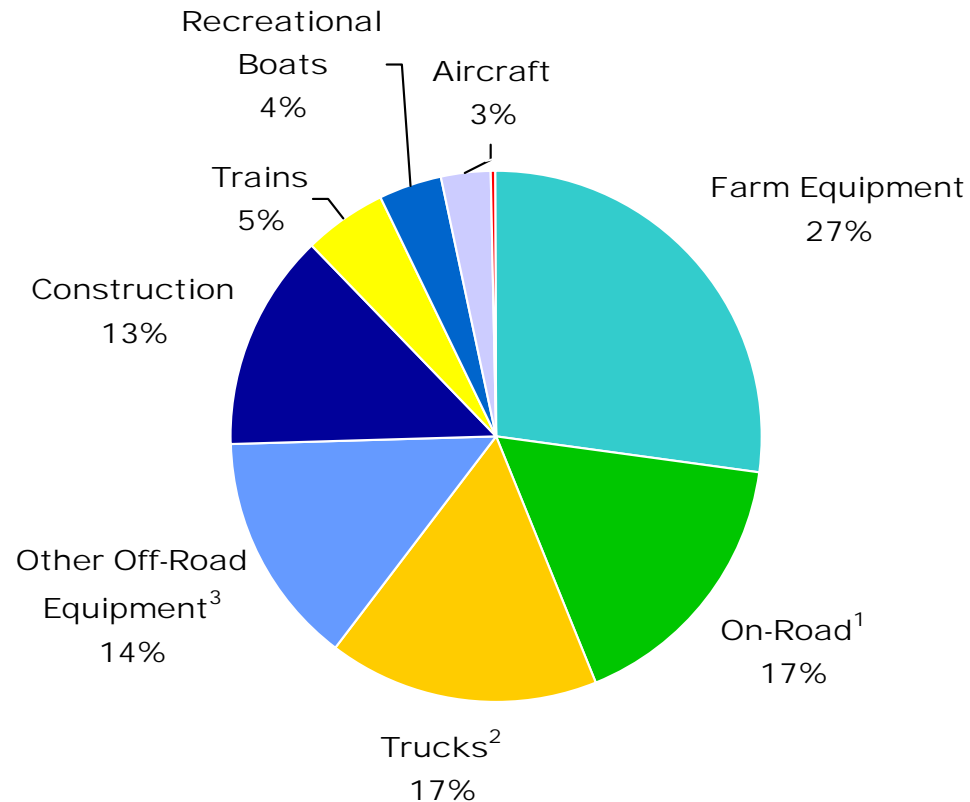
- 1) Includes light and medium duty passenger and commercial cars and trucks, and buses
- 2) Includes Medium Heavy and Heavy Heavy Diesel trucks
- 3) Includes industrial equipment such as forklifts and cargo handling equipment, commercial equipment such as generator sets, and lawn and garden equipment

Source: California Air Resources Board 2004 Estimated Annual Average Emissions – <http://www.arb.ca.gov/aqd/almanac/almanac.htm>

# San Joaquin Valley PM 2.5 mobile source emissions

## San Joaquin Valley PM 2.5 Mobile Source Emissions

13 Total Tons Per Year



Notes:

- 1) Includes light and medium duty passenger and commercial cars and trucks, and buses
- 2) Includes Medium Heavy and Heavy Heavy Diesel trucks
- 3) Includes industrial equipment such as forklifts and cargo handling equipment, commercial equipment such as generator sets, and lawn and garden equipment

Source: California Air Resources Board 2004 Estimated Annual Average Emissions – <http://www.arb.ca.gov/aqd/almanac/almanac.htm>

Therefore, for diesel sources in the San Joaquin Valley

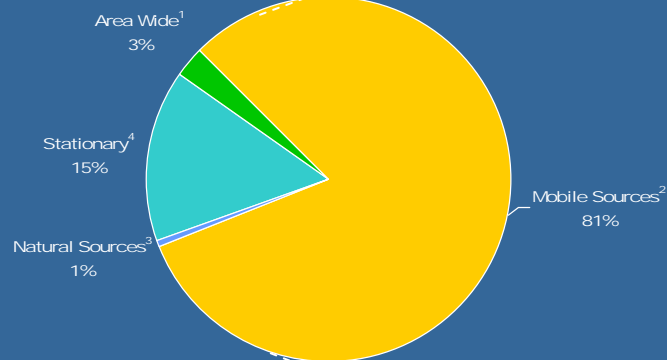
- » Trucks and Farm Equipment are the drivers of NO<sub>x</sub>, and
- » Farm Equipment and Trucks are the drivers of PM<sub>2.5</sub>.
- » Collaborative Projects that would have the greatest impacts include:
  - › Idle reduction strategies along major trucking corridors
  - › Truck engines retrofit program for large fleets and owner operated vehicles
  - › Cleaner fuels, retrofits, replacements and repowers for farm equipment
  - › Electrification and efficiency improvements for agriculture pumps



# California NOx Emissions

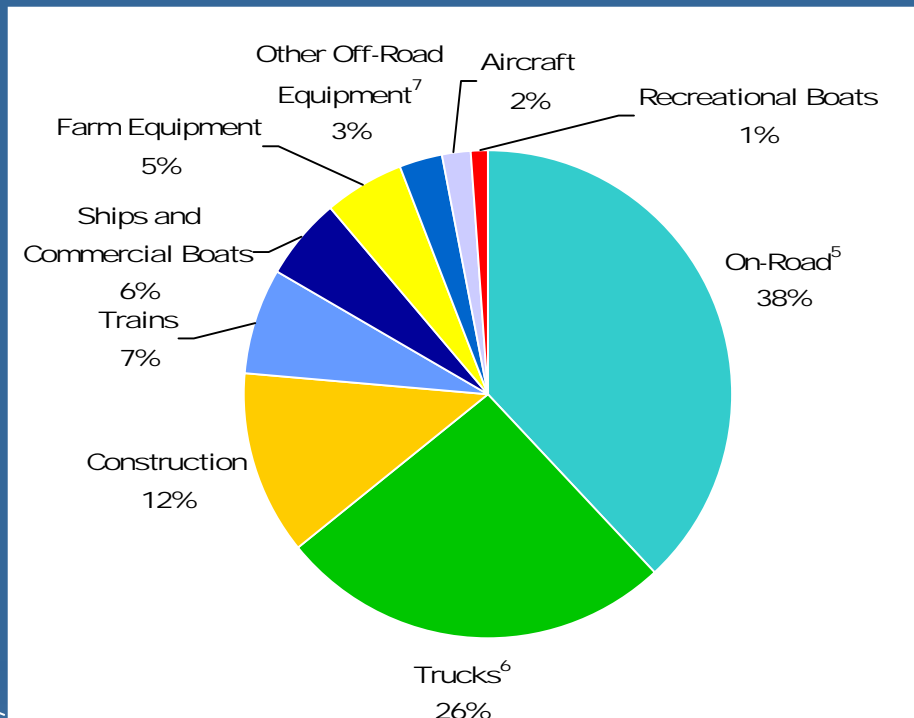
## California NOx Emissions

3333 Total Tons Per Day



## Mobile Source NOx Emissions

2708 Total Tons Per Day



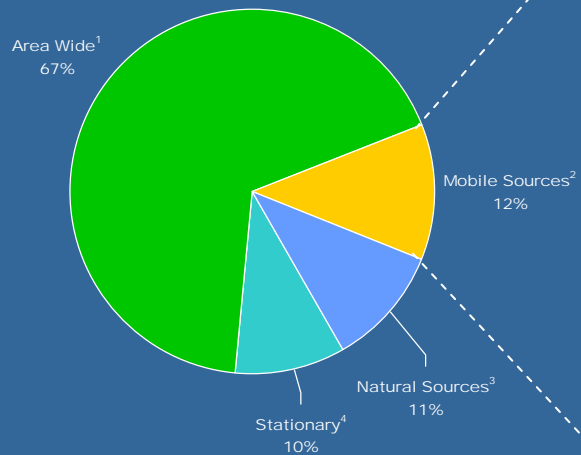
Notes:

- 1) Includes all sources of dust and several burning processes
- 2) Includes vehicles, trucks, marine vessels, trains, aircraft, and other off-road equipment
- 3) Represents non-anthropogenic sources, primarily wildfires
- 4) Includes fuel combustion activities, waste disposal, cleaning and surface coatings, petroleum production, and industrial processes
- 5) Includes light and medium duty passenger and commercial cars and trucks, and buses
- 6) Includes Medium Heavy and Heavy Heavy Diesel trucks
- 7) Includes industrial equipment such as forklifts and cargo handling equipment, commercial equipment such as generator sets, and lawn and garden equipment

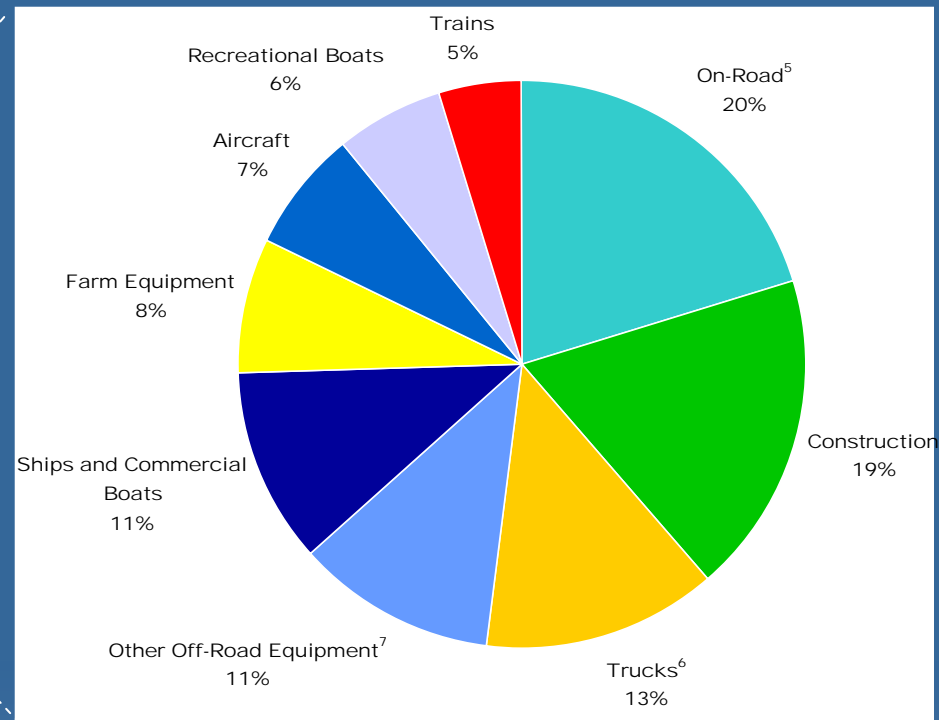
Source: California Air Resources Board 2004 Estimated Annual Average Emissions – <http://www.arb.ca.gov/aqd/almanac/almanac.htm>

# California PM 2.5 Emissions

## California PM 2.5 Emissions 860 Total Tons Per Day



## Mobile Source PM 2.5 Emissions 102 Total Tons Per Day



Notes:

- 1) Includes all sources of dust and several burning processes
- 2) Includes vehicles, trucks, marine vessels, trains, aircraft, and other off-road equipment
- 3) Represents non-anthropogenic sources, primarily wildfires
- 4) Includes fuel combustion activities, waste disposal, cleaning and surface coatings, petroleum production, and industrial processes
- 5) Includes light and medium duty passenger and commercial cars and trucks, and buses
- 6) Includes Medium Heavy and Heavy Heavy Diesel trucks
- 7) Includes industrial equipment such as forklifts and cargo handling equipment, commercial equipment such as generator sets, and lawn and garden equipment

Source: California Air Resources Board 2004 Estimated Annual Average Emissions – <http://www.arb.ca.gov/aqd/almanac/almanac.htm>