

Control of Emissions for Regulated Sources Shafter Community

May 13, 2019

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San Joaquin Valley Air Pollution Control District

Community-Focused Emission Reductions

- AB 617 Community Emission Reduction Program (CERP) process provides opportunities to identify and implement community-focused emissions reductions
- Steering Committee's local knowledge and feedback vital
- 1st step in identifying new emissions reductions opportunities is to understand clean air efforts in community to date

Decades of Stringent Air Quality Regulations

- District has long evaluated and implemented stringent control measures across stationary sources under its jurisdiction in efforts to reduce air pollution and meet health-based standards
 - Adopted over 650 rules and rule amendments
 - Great progress made since 1990 - 85% reduction in air pollution
- Ongoing analysis necessary to demonstrate rules continue to meet state and federal control requirements
 - AB 617 BARCT Analysis (<http://community.valleyair.org/best-available-retrofit-control-technology-barct>)
 - New PM2.5 Plan for San Joaquin Valley (<https://www.valleyair.org/pmplans>)

Existing Stationary Source Emission Controls

- Source specific prohibitory rules adopted to reduce emissions from stationary and other sources
 - Regulation IV (Prohibitions)
 - Regulation VII (Toxic Air Pollutants)
 - Regulation VIII (Fugitive PM10 Prohibitions)
 - Regulation IX (Mobile and Indirect Sources)
- Web link: <http://www.valleyair.org/rules/1ruleslist.htm>

Existing Stationary Source Emission Controls

[Rule 4001](#) NEW SOURCE PERFORMANCE STANDARDS

[Rule 4002](#) NATIONAL EMISSION STANDARDS FOR HAZARDOUS AIR POLLUTANTS

[Rule 4101](#) VISIBLE EMISSIONS

[Rule 4102](#) NUISANCE

[Rule 4103](#) OPEN BURNING

[Rule 4104](#) REDUCTION OF ANIMAL MATTER

[Rule 4105](#) COMMERCIAL OFFSITE MULTIUSER HAZARDOUS WASTE AND NONHAZARDOUS WASTE DISPOSAL FACILITIES

[Rule 4106](#) PRESCRIBED BURNING AND HAZARD REDUCTION BURNING

[Rule 4201](#) PARTICULATE MATTER CONCENTRATION

[Rule 4202](#) PARTICULATE MATTER - EMISSION RATE

[Rule 4203](#) PARTICULATE MATTER EMISSIONS FROM INCINERATION OF COMBUSTIBLE REFUSE

[Rule 4204](#) COTTON GINS

[Rule 4301](#) FUEL BURNING EQUIPMENT

[Rule 4302](#) INCINERATOR BURNING

[Rule 4303](#) ORCHARD HEATERS

[Rule 4304](#) EQUIPMENT TUNING PROCEDURE FOR BOILERS, STEAM GENERATORS, AND PROCESS HEATERS

[Rule 4305](#) BOILERS, STEAM GENERATORS, AND PROCESS HEATERS - PHASE 2

[Rule 4306](#) BOILERS, STEAM GENERATORS, AND PROCESS HEATERS - PHASE 3

[Rule 4307](#) BOILERS, STEAM GENERATORS, AND PROCESS HEATERS - 2.0 MMBTU/HR TO 5.0 MMBTU/HR ([RULE 4307 CERTIFIED UNITS](#))

[Rule 4308](#) BOILERS, STEAM GENERATORS, AND PROCESS HEATERS - 0.075 MMBTU/HR TO LESS THAN 2.0 MMBTU/HR ([CERTIFIED WATER HEATERS](#))

[Rule 4309](#) DRYERS, DEHYDRATORS, AND OVENS

[Rule 4311](#) FLARES

[Rule 4313](#) LIME KILNS

[Rule 4320](#) ADVANCED EMISSION REDUCTION OPTIONS FOR BOILERS, STEAM GENERATORS, AND PROCESS HEATERS GREATER THAN 5.0 MMBTU/HR ([RULE 4320 FAQs](#))

[Rule 4351](#) BOILERS, STEAM GENERATORS, AND PROCESS HEATERS - PHASE 1

[Rule 4352](#) SOLID FUEL FIRED BOILERS, STEAM GENERATORS, AND PROCESS HEATERS

[Rule 4354](#) GLASS MELTING FURNACES

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[Rule 4401](#) STEAM-ENHANCED CRUDE OIL PRODUCTION WELLS ([RULE 4401 FAQs](#))

[Rule 4402](#) CRUDE OIL PRODUCTION SUMPS

[Rule 4404](#) HEAVY OIL TEST STATION - KERN COUNTY

[Rule 4405](#) OXIDES OF NITROGEN EMISSIONS FROM EXISTING STEAM GENERATORS USED IN THERMALLY ENHANCED OIL RECOVERY - CENTRAL AND WESTERN KERN COUNTY FIELDS

[Rule 4406](#) SULFUR COMPOUNDS FROM OIL-FIELD STEAM GENERATORS - KERN COUNTY

[Rule 4407](#) IN-SITU COMBUSTION WELL VENTS

[Rule 4408](#) GLYCOL DEHYDRATION SYSTEMS

[Rule 4409](#) COMPONENTS AT LIGHT CRUDE OIL PRODUCTION FACILITIES, NATURAL GAS PRODUCTION FACILITIES, AND NATURAL GAS PROCESSING FACILITIES

[Rule 4453](#) REFINERY VACUUM PRODUCING DEVICES OR SYSTEMS

[Rule 4454](#) REFINERY PROCESS UNIT TURNAROUND

[Rule 4455](#) COMPONENTS AT PETROLEUM REFINERIES, GAS LIQUIDS PROCESSING FACILITIES, AND CHEMICAL PLANTS

[Rule 4501](#) ALTERNATE COMPLIANCE FOR BEST AVAILABLE RETROFIT CONTROL TECHNOLOGY (BARCT)

[Rule 4550](#) CONSERVATION MANAGEMENT PRACTICES - [CMP list](#)

[Rule 4565](#) BIOSOLIDS, ANIMAL MANURE, AND POULTRY LITTER OPERATIONS

[Rule 4566](#) ORGANIC MATERIAL COMPOSTING OPERATIONS

[Rule 4570](#) CONFINED ANIMAL FACILITIES

[Rule 4601](#) ARCHITECTURAL COATINGS

[Rule 4602](#) MOTOR VEHICLE ASSEMBLY COATINGS

[Rule 4603](#) SURFACE COATING OF METAL PARTS AND PRODUCTS, PLASTIC PARTS AND PRODUCTS, AND PLEASURE CRAFTS

[Rule 4604](#) CAN AND COIL COATING OPERATIONS

[Rule 4605](#) AEROSPACE ASSEMBLY AND COMPONENT COATING OPERATIONS

[Rule 4606](#) WOOD PRODUCTS AND FLAT WOOD PANELING PRODUCTS COATING OPERATIONS

[Rule 4607](#) GRAPHIC ARTS AND PAPER, FILM, FOIL AND FABRIC COATINGS

[Rule 4610](#) GLASS COATING OPERATIONS

[Rule 4612](#) MOTOR VEHICLE AND MOBILE EQUIPMENT COATING OPERATIONS

[Rule 4621](#) GASOLINE TRANSFER INTO STATIONARY STORAGE CONTAINERS, DELIVERY VESSELS, AND BULK PLANTS

[Rule 4622](#) GASOLINE TRANSFER INTO MOTOR VEHICLE FUEL TANKS

[Rule 4623](#) STORAGE OF ORGANIC LIQUIDS

[Rule 4624](#) TRANSFER OF ORGANIC LIQUID

[Rule 4625](#) WASTEWATER SEPARATORS

[Rule 4641](#) CUTBACK, SLOW CURE, AND EMULSIFIED ASPHALT, PAVING AND MAINTENANCE OPERATIONS

[Rule 4642](#) SOLID WASTE DISPOSAL SITES

[Rule 4651](#) SOIL DECONTAMINATION OPERATIONS

[Rule 4652](#) COATINGS AND INK MANUFACTURING

[Rule 4653](#) ADHESIVES AND SEALANTS

[Rule 4661](#) ORGANIC SOLVENTS

[Rule 4662](#) ORGANIC SOLVENT DEGREASING OPERATIONS

[Rule 4663](#) ORGANIC SOLVENT CLEANING, STORAGE, AND DISPOSAL

[Rule 4672](#) PETROLEUM SOLVENT DRY CLEANING OPERATIONS

[Rule 4681](#) RUBBER TIRE MANUFACTURING

[Rule 4682](#) POLYSTYRENE, POLYETHYLENE, AND POLYPROPYLENE PRODUCTS MANUFACTURING

[Rule 4684](#) POLYESTER RESIN OPERATIONS

[Rule 4691](#) VEGETABLE OIL PROCESSING OPERATIONS

[Rule 4692](#) COMMERCIAL CHARBROILING

[Rule 4693](#) BAKERY OVENS

[Rule 4694](#) WINE FERMENTATION AND STORAGE TANKS

[Rule 4695](#) BRANDY AGING AND WINE AGING OPERATIONS

[Rule 4701](#) INTERNAL COMBUSTION ENGINES - PHASE 1

[Rule 4702](#) INTERNAL COMBUSTION ENGINES ([CERTIFIED EQUIPMENT FOR INTERNAL COMBUSTION ENGINES](#))

[Rule 4703](#) STATIONARY GAS TURBINES

[Rule 4801](#) SULFUR COMPOUNDS

[Rule 4802](#) SULFURIC ACID MIST

[Rule 4901](#) WOOD BURNING FIREPLACES AND WOOD BURNING HEATERS

[Rule 4902](#) RESIDENTIAL WATER HEATERS ([CERTIFIED WATER HEATERS](#))

[Rule 4905](#) NATURAL GAS-FIRED, FAN-TYPE CENTRAL FURNACES

Existing Stationary Source Emission Controls

RULE 4701 INTERNAL COMBUSTION ENGINES – PHASE 1 (Adopted May 21, 1992; Amended December 17, 1992; Amended October 20, 1994; Amended March 16, 1995; Amended December 19, 1996; Amended November 12, 1998; Amended December 19, 2002; Amended August 21, 2003)

RULE 4702 INTERNAL COMBUSTION ENGINES (Adopted August 21, 2003; Amended June 16, 2005; Amended April 20, 2006; Amended January 18, 2007; Amended August 18, 2011; Amended November 14, 2013)

District Permitting of Stationary Sources

- District requires permits for stationary sources of air pollution
 - Enforceable conditions ensure compliance with air quality regulations
- District permitting applies to new and expanding sources
 - New Source Review (Rule 2201)
 - Best Available Control Technology (BACT)
 - Assure no violation of NAAQS
 - Assure no new health risk is created
 - Multilingual Public Notification
- District will not issue a permit for a new or modified source unless it meets all these requirements

Air Toxics Emission Controls

- Integrated air toxics program combines requirements of District, state and federal government
 - New Source Review (prevents new risk)
 - District air toxic prohibitory rules (Regulation VII)
 - Federal Maximum Achievable Control Technology (MACT)
 - Federal National Emission Standards for Hazardous Air Pollutants (NESHAPS)
 - California Air Toxic Control Measures (ATCMs)
 - AB 2588 Air Toxics “Hot Spots” program
 - Incentive Grants (Fireplaces, diesel combustion, etc.)

Incentive Grant Programs

- **Businesses**

- Trucks, tractors, heavy duty construction equipment, forklifts, freight equipment, electric lawn and garden

- **Public Agencies**

- School buses, transit buses, clean vehicles, electric vehicle chargers, heavy duty waste haulers, alt fuel infrastructure

- **Residential**

- Car repairs and replacements, fireplace change outs, electric lawnmowers and other yard equipment, electric vehicles

- Many more grant programs found here:

<http://valleyair.org/grants/>



Mobile Source Emission Reductions

- District can't regulate tailpipe emissions from mobile sources
- Extensive District efforts to indirectly regulate mobile sources
 - Indirect Source Review (ISR) - First and only rule in the nation that requires mitigation of emissions increases from new developments
 - Voluntary Emission Reduction Agreements (VERA)
 - E-Trip regulation requiring large employers to implement alternative transportation plans (encourage carpooling, vanpooling, etc.)
 - California Environmental Quality Act (CEQA) Commenting – Land use decisions rest with local cities and counties

Update on Stationary Source Emissions Shafter Community

May 13, 2019

Brian Clements

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San Joaquin Valley Air Pollution Control District

Continued Update of Emission Inventory

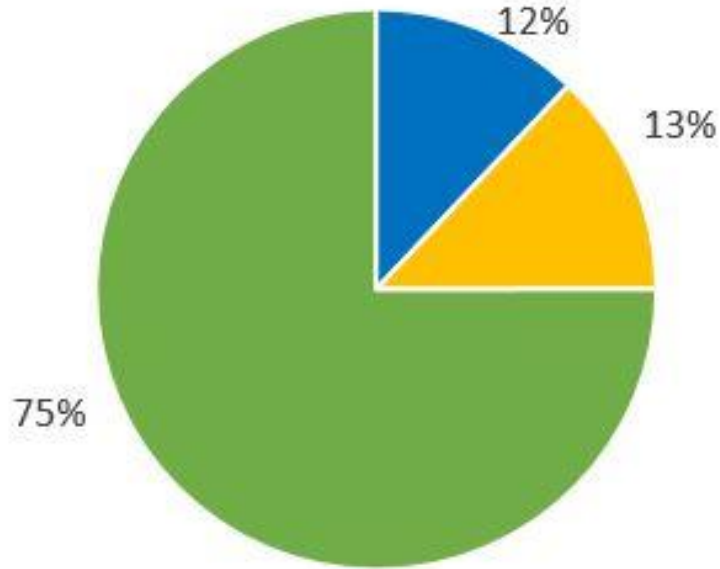
- District is currently processing the 2018 emissions data submitted by facilities
- Previous five years (2013 – 2017) of stationary source emissions data is displayed on the website
 - <http://community.valleyair.org/selected-communities/shafter/>
 - Based on feedback from the Steering Committee, continuing to update website mapping tools

Map Update in Progress

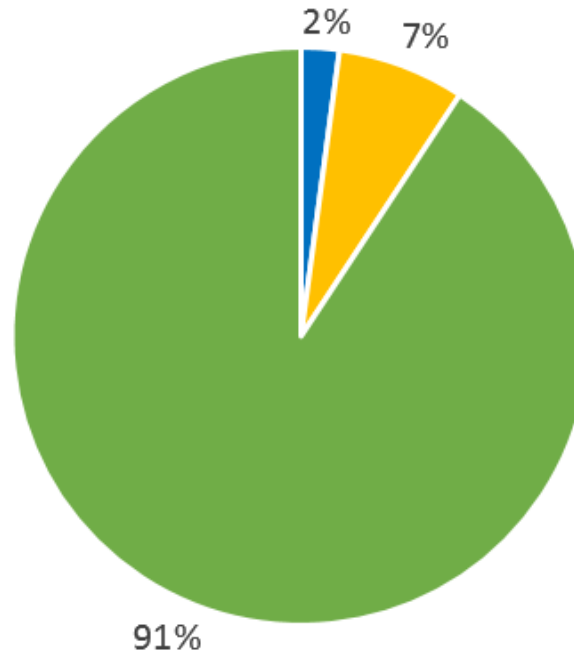
- Sensitive receptors
 - Public and Private Schools
 - Medical Facilities
 - Care Facilities
- VOC, NO_x, PM_{2.5} markers to indicate relative magnitude of mass emissions for stationary and mobile sources
- Toxic Air Contaminant emissions
- Display Mobile, Area, and Stationary Source emissions

Emissions Source Summary

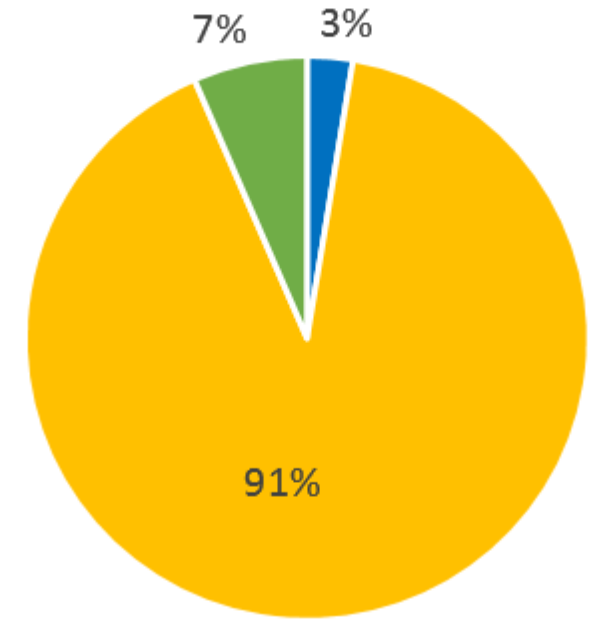
PM2.5 Emissions



VOC Emissions



NOx Emissions

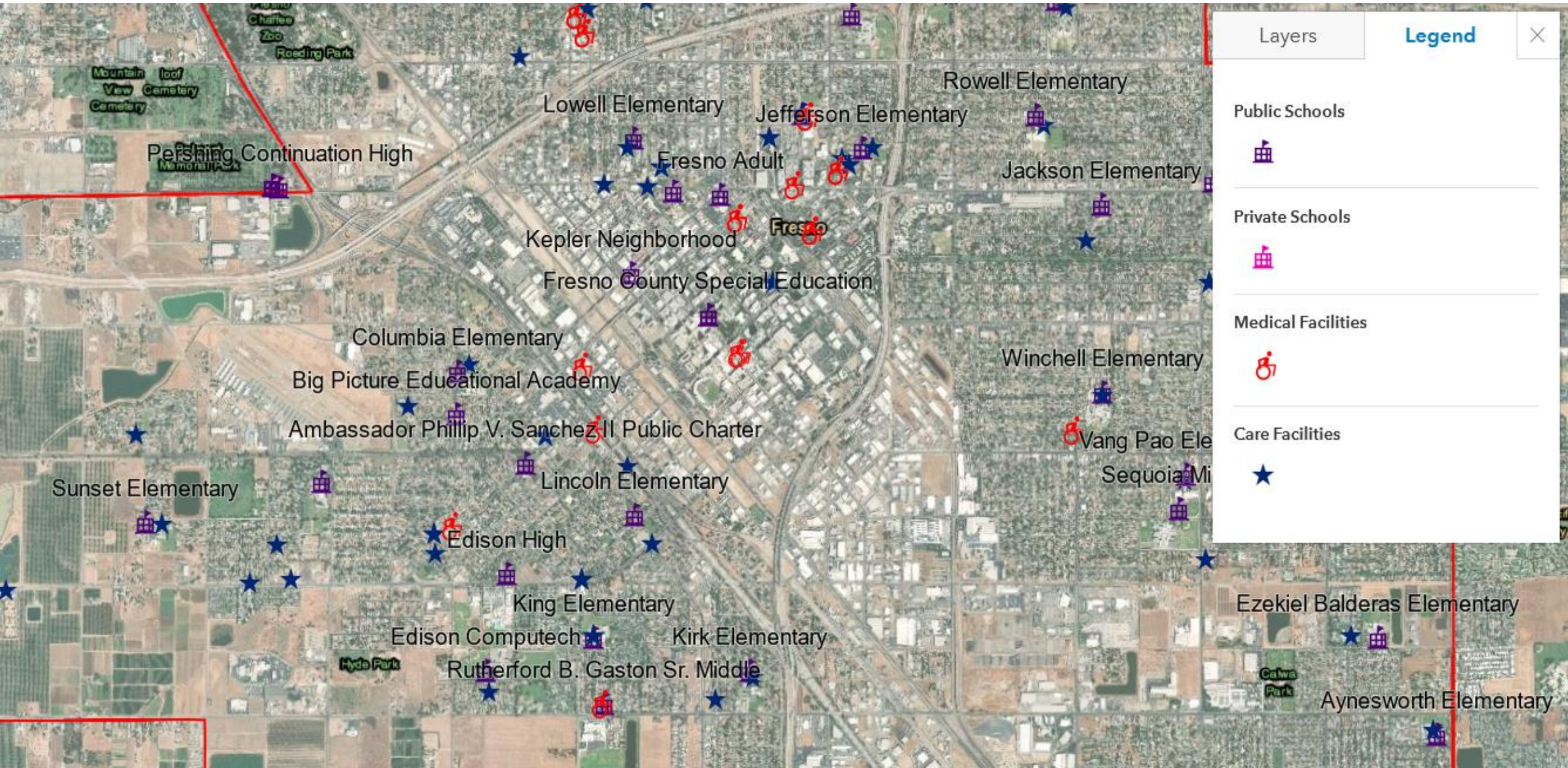


■ Stationary
Source

■ Mobile

■ Areawide

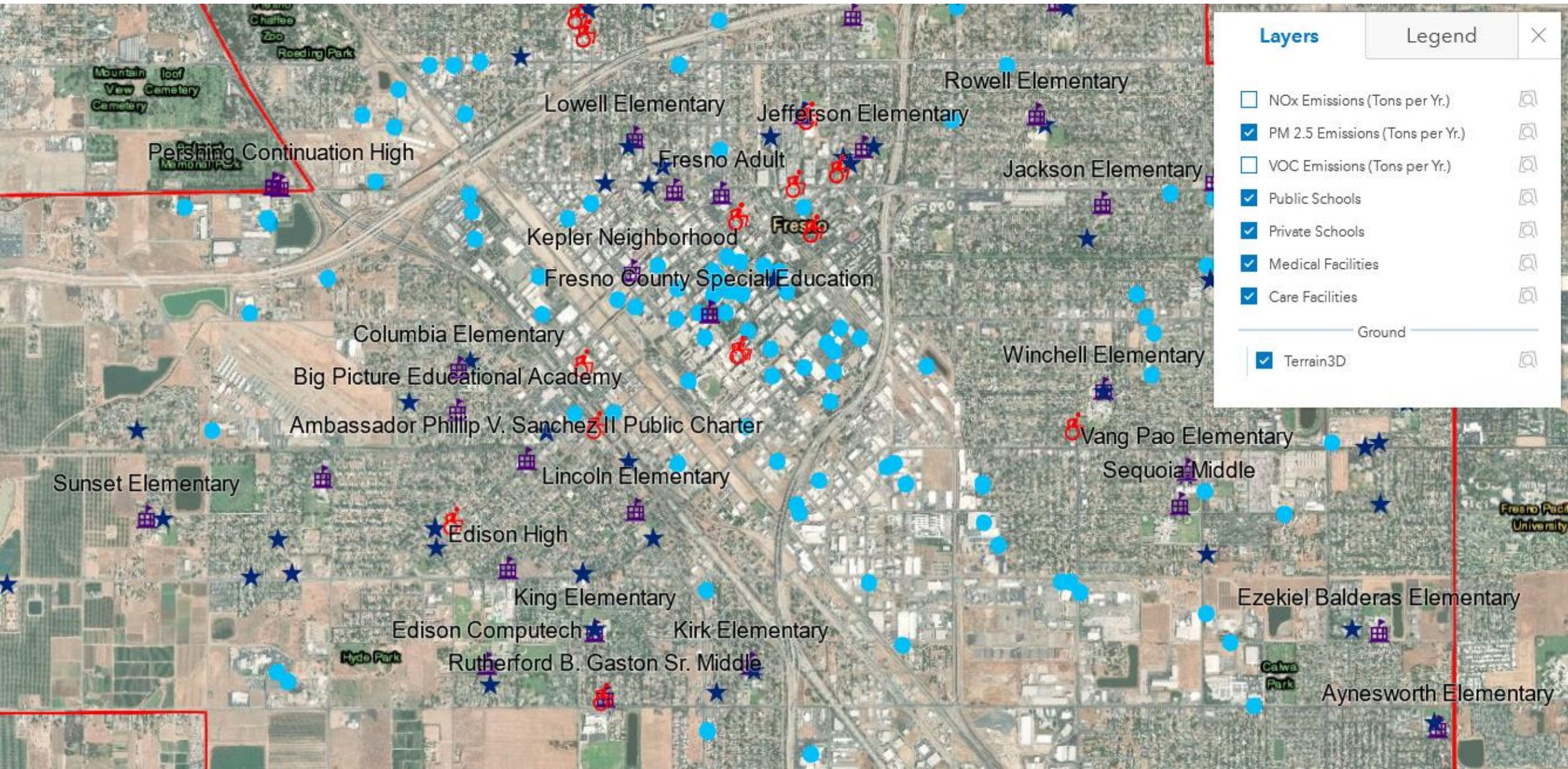
Sensitive Receptors



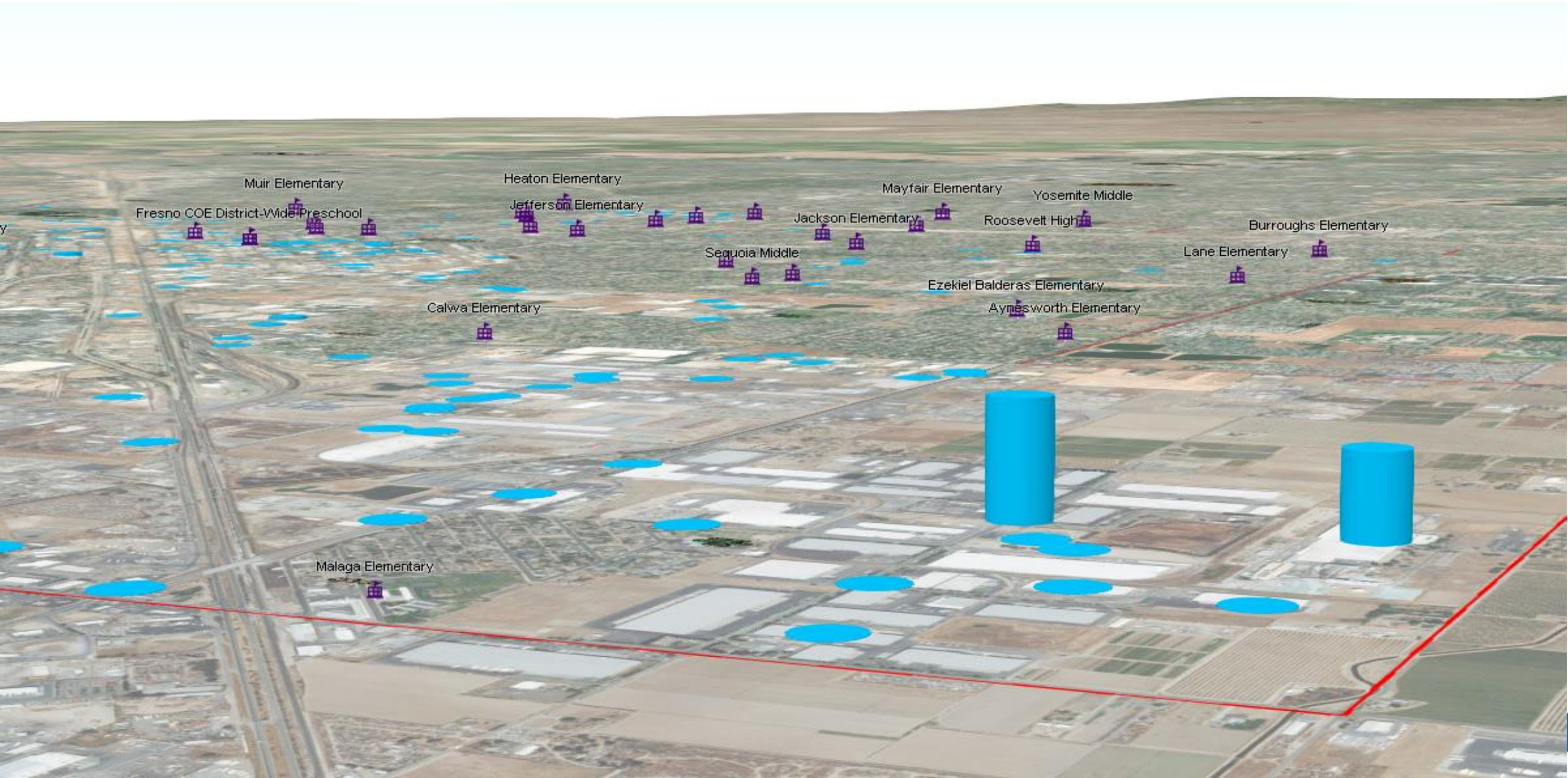
Layers Legend

Public Schools	
Private Schools	
Medical Facilities	
Care Facilities	

Sensitive Receptors and Emissions Sources



PM2.5 Emissions



VOC Emissions

