



BAY AREA
AIR QUALITY
MANAGEMENT
DISTRICT

Community Risk Reduction Plan: San Francisco



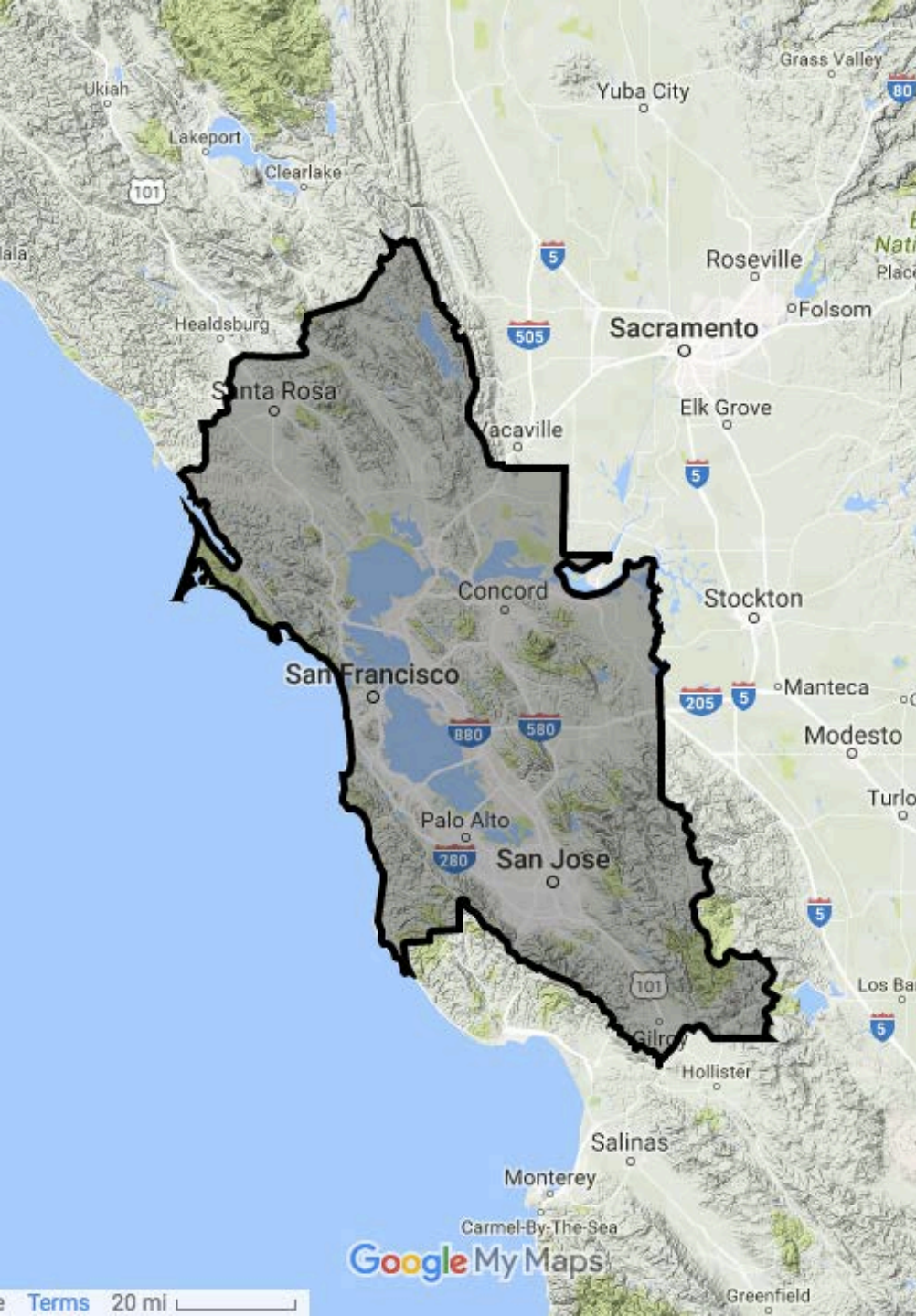
AEP State Conference
May 18-21, 2017
San Francisco, California



Phil Martien, Ph.D.
Bay Area Air Quality Management District

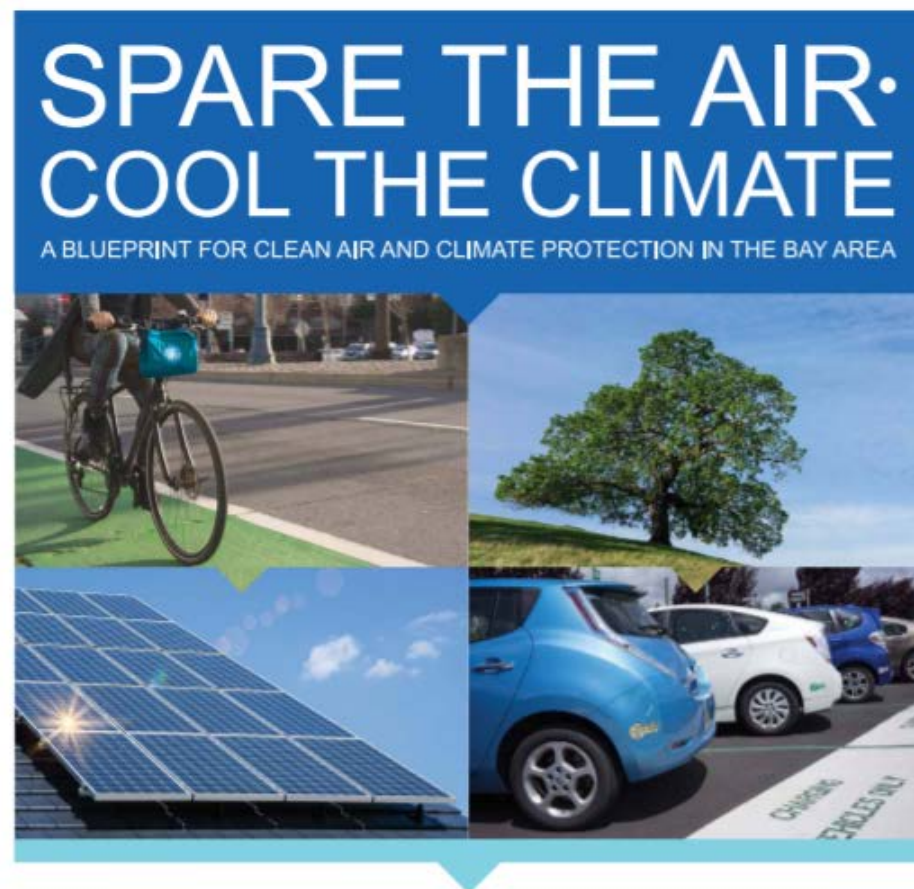
Overview

- Regional perspective on air quality
- Bay Area Air District guidance on assessing air quality impacts
- Community risk reduction planning
 - San Francisco example



Recently Adopted Clean Air Plan:

- Protect air quality & health at regional & local scales
- Eliminate disparities among Bay Area communities from air pollution
- Protect the climate:
 - Align with State targets

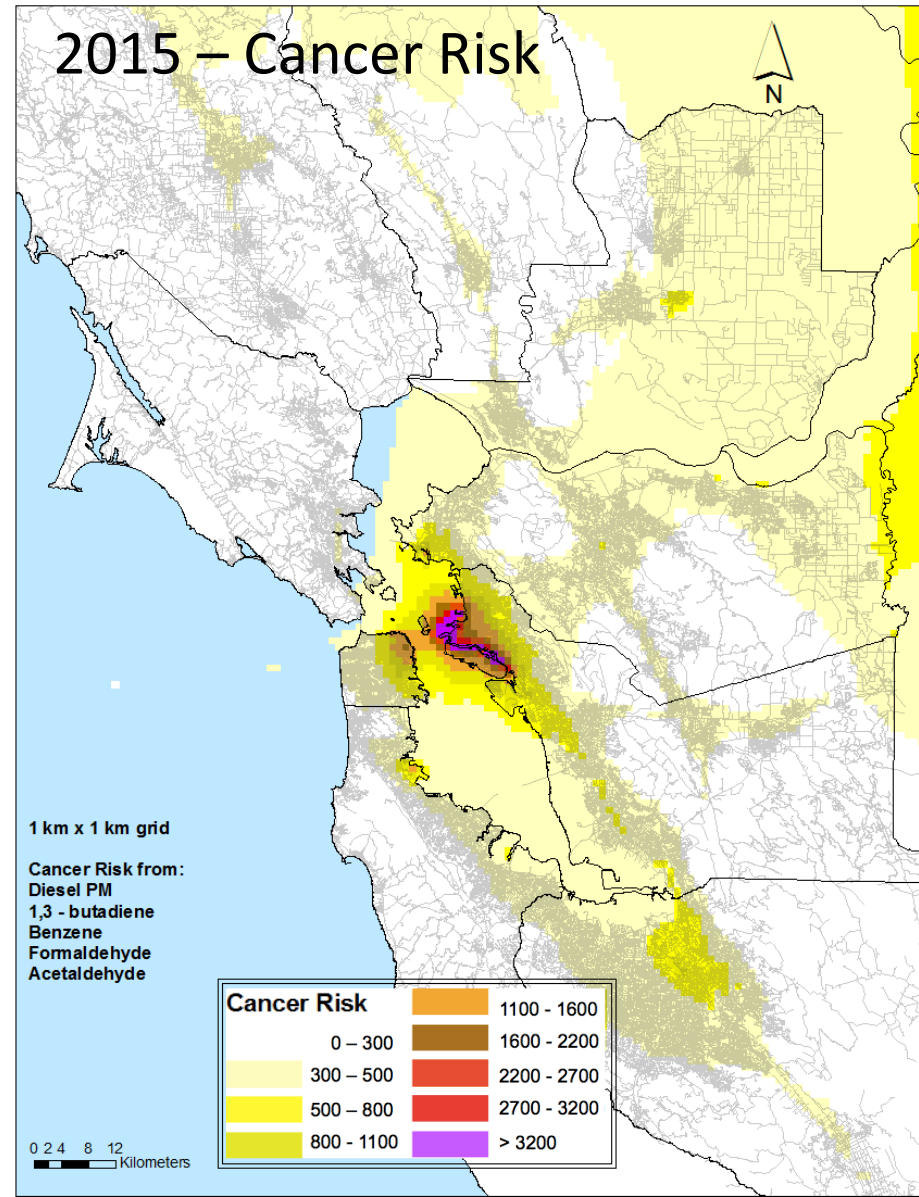
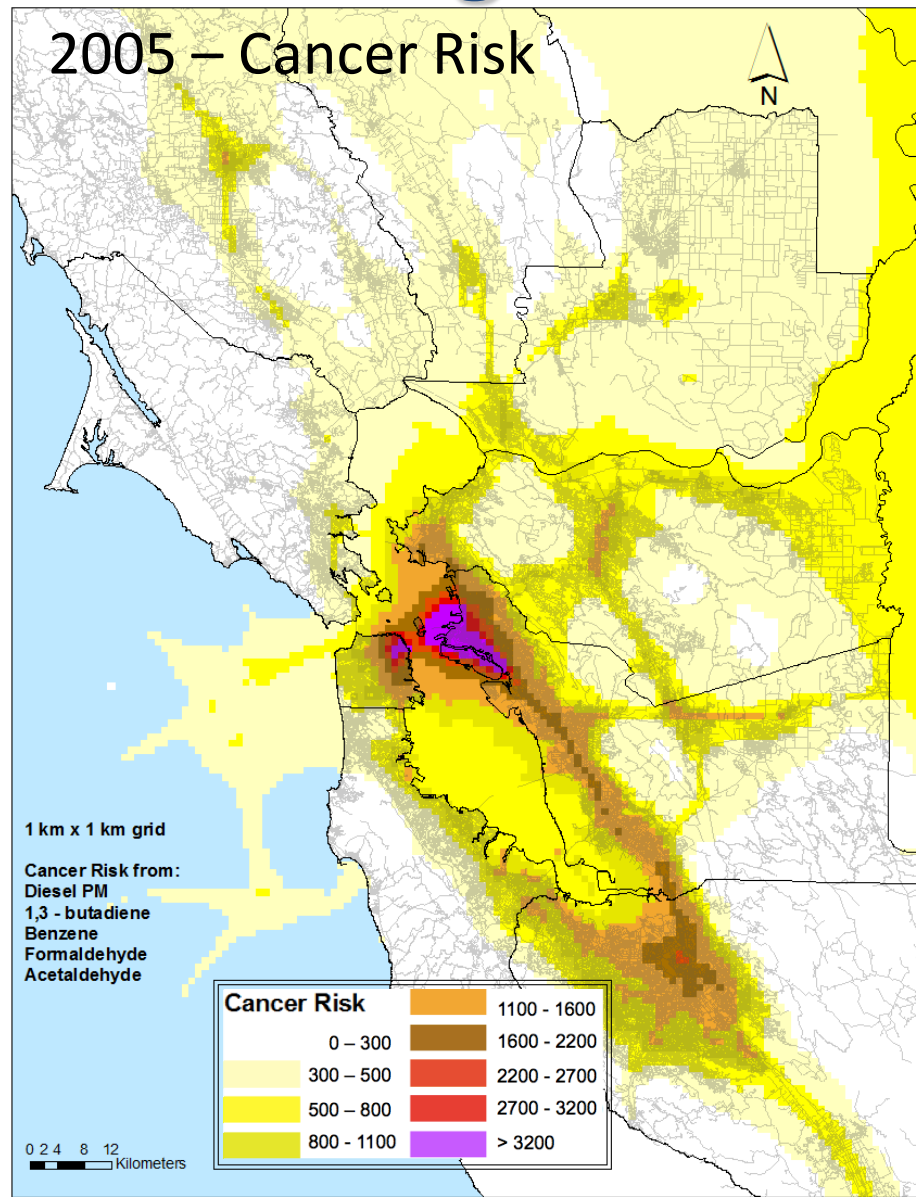


FINAL 2017 CLEAN AIR PLAN






ADOPTED APRIL 19, 2017

Overall Air Pollution Down, but Higher Risks in Some Communities



Bay Area Communities Most Impacted by Air Pollution

- Areas with higher health impacts from particulate matter (PM), ozone, and toxics 
- Areas with episodes of higher PM 
- Areas with episodes of higher ozone 



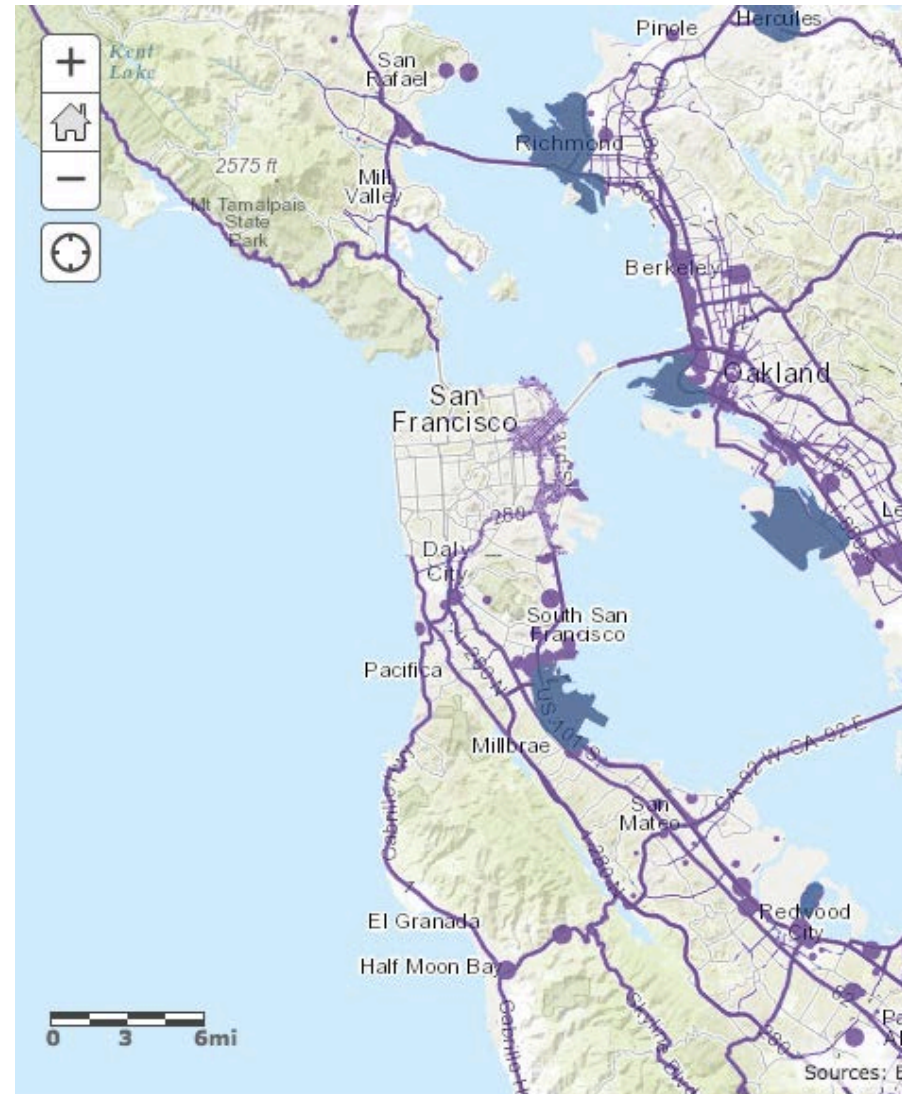
Infill Development

- Many benefits:
 - Housing
 - Pollution reduction
 - Public transit, walking, biking
 - Green space
- Potential for increased air pollution exposures
 - Traffic-associated adverse health outcomes
 - Highest levels of fine PM & toxics occur near air pollution sources



Air District Guidance and Tools

- Guidance on addressing impacts
- Project-by-project approach:
 - Uncertainty
 - Limited options
 - Inconsistencies
- Community Risk Reduction Plan option
- Air District *Planning Healthy Places* to aid with planning



Community Risk Reduction Plan

- Address potential air pollution risks in long-range local plans rather than on a project-by-project basis
- Develop a community-wide, integrated strategy
- Integrate risk/hazard reduction measures into local planning processes
- Simplify environmental review for infill projects
- Address existing as well as new exposures
- Provide a focal point for healthy-community discussions

San Francisco Plan

- Model particle concentrations and cancer risk from
 - On-road cars and trucks
 - Permitted stationary sources
 - Rail
 - Ships and harbor craft
 - Transit terminal
 - Large construction projects
- Set thresholds
- Map areas above thresholds
- Develop measures to reduce risk in new and existing developments
- Develop measures to reduce impacts in communities with greatest health burdens from air pollution



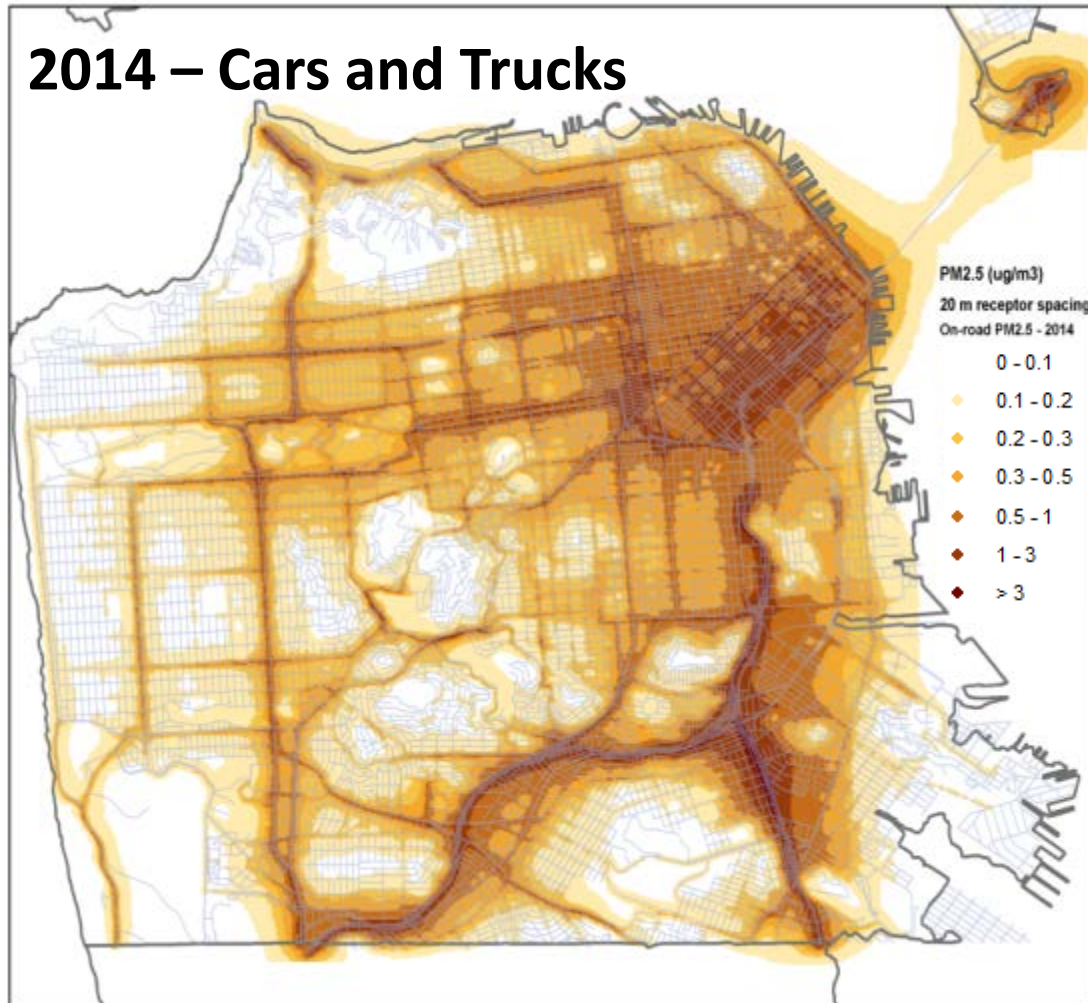
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Examples of Modeling Results: Fine Particles and Potential Cancer Risk

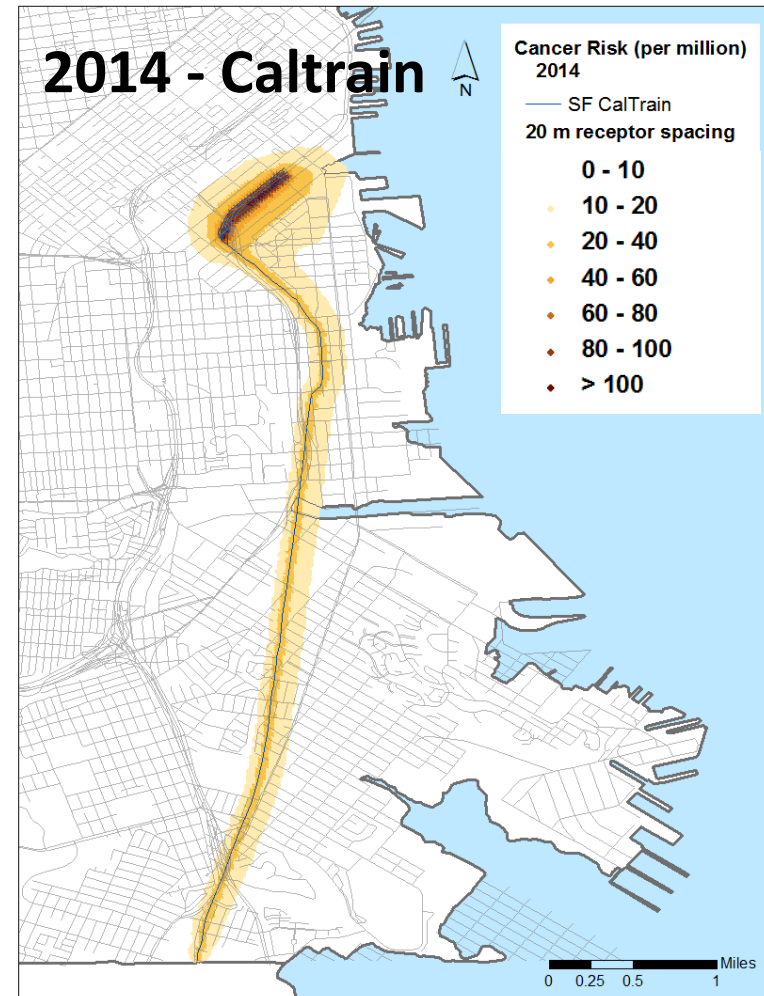
Fine particulate matter (PM_{2.5}) annual concentrations

Potential cancer risk (lifetime exposure)

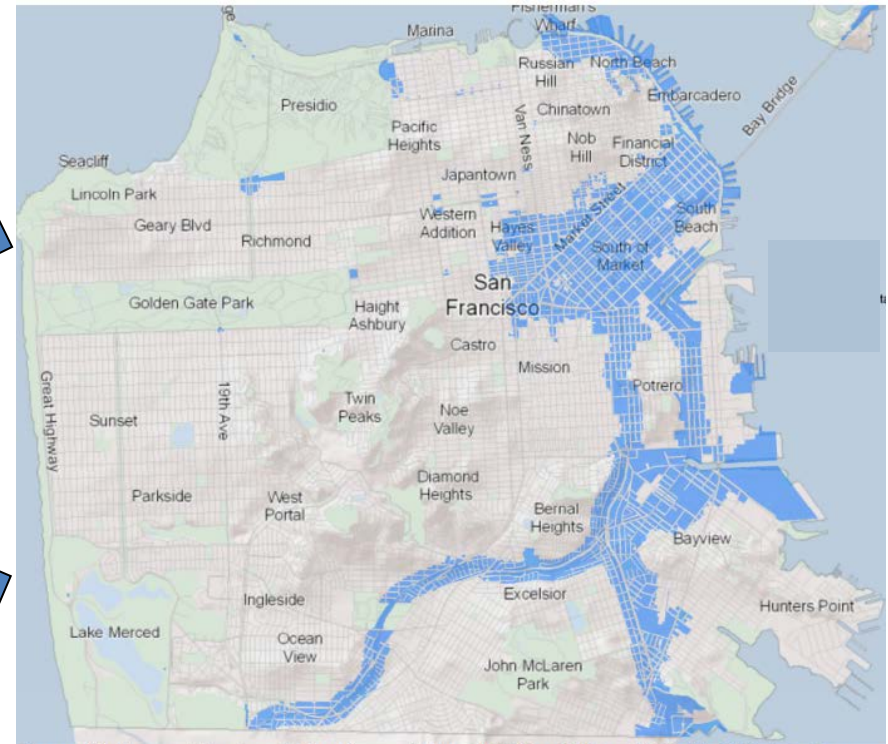
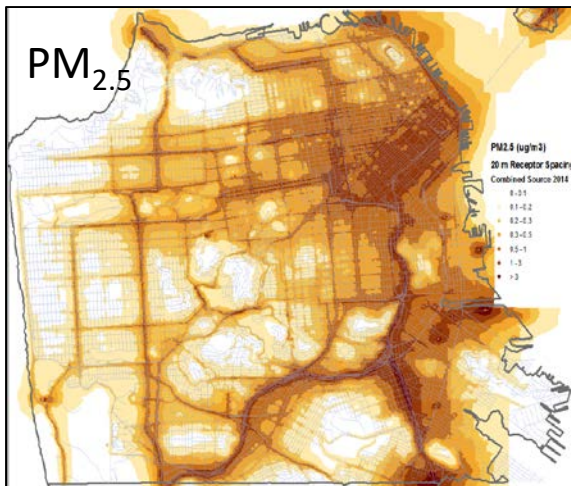
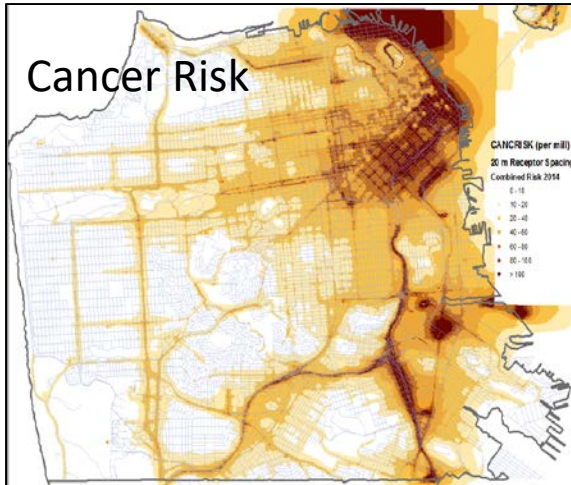
2014 – Cars and Trucks



2014 - Caltrain



Partnered with SF Planning, DPH on Community Risk Reduction Plan



Access official map with notes at: <https://www.sfdph.org/dph/files/EHSDocs/AirQuality/AirPollutantExposur>

City adopted thresholds for cancer risk and PM_{2.5} to form **Air Pollutant Exposure Zones**

More Information

- 2017 Clean Air Plan

<http://www.baaqmd.gov/plans-and-climate/air-quality-plans/current-plans>

- Community Air Risk Evaluation (CARE) Program

<http://www.baaqmd.gov/CARE/>

- Planning Healthy Places

<http://www.baaqmd.gov/plans-and-climate/planning-healthy-places>