MATES V Proposed Enhanced Monitoring in EJ Communities Near Refineries

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Definitions

- Major petroleum refineries
  - Refineries with FCC Unit
    - Includes:
      - Chevron (El Segundo)
      - Phillips 66 (Carson)
      - Phillips 66 (Wilmington)
      - Tesoro (Carson)
      - Tesoro (Wilmington)
      - PBF (Torrance)
      - Ultramar-Valero (Wilmington)

- EJ definitions used in recent SCAQMD work
  - Carl Moyer Program
  - 2016 AQMP Socioeconomic Report
SCAQMD Definition (Carl Moyer Program)

- EJ & non-EJ
- 2x2 km grid
- Poverty (Federal) ≥ 10% (2008 – 2012 American Community Survey data)
- Cancer Risk in top 15% OR PM2.5 in top 15%
  - MATES IV, 2012 Annual PM2.5 Avg.
- Annual mean PM2.5 concentration > 11.1 μg/m³
- Toxic cancer risk > 894 in a million
- (Updated over time)
Refineries and definition used in Carl Moyer program

- Chevron Refinery
- Phillips 66 Carson Refinery
- Phillips 66 Wilmington Refinery
- Tesoro Carson Refinery
- Tesoro Wilmington Refinery
- Torrance Refinery
- Ultramar Inc. - Valero Wilmington Refinery

Legend:
- Non-EJ
- EJ
AQMP EJ Definitions

- Used raw data from CalEnviroScreen 2.0 to assign a percentile ranking based on the mean value, relative to the basin.
  - Assigned by census tract
- Included SCAQMD cancer risk estimates.
- Categorized census tracts by top 25%ile or top 50%ile.
AQMP Definition 1

- Census tracts
- Demographic indicators:
  - Income (poverty status)
- Air quality Indicators
  - PM2.5
  - Toxic cancer risk (MATES IV)
  - Ozone

Most akin to those used by the SCAQMD in the current EJ designation for grant allocation purposes.

EJ assignments are categorized by top 25% or top 50% of census tracts.
AQMP Definition 3 includes more demographic and non-air related indicators available in CalEnviroScreen.

Other demographic indicators:
- Age
- Asthma
- Education
- Linguistic isolation
- Low birth weight
- Unemployment.

Other environmental burdens:
- Drinking water
- Pesticides
- Toxic releases
- Traffic that are directly related to exposure
- Cleanup sites
- Groundwater threats
- Hazardous waste
- Impaired water bodies
- Solid waste
Summary

- Wilmington, Carson, and the Long Beach areas near refineries are EJ areas based on several recent SCAQMD definitions of EJ
  - Do you agree with this assessment?
- Community near Torrance Refinery will have monitoring through a separate effort outside of MATES