MATES V Proposed Enhanced Monitoring in EJ Communities Near Refineries

Jo Kay Ghosh

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MATES V Technical Advisory Group meeting

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
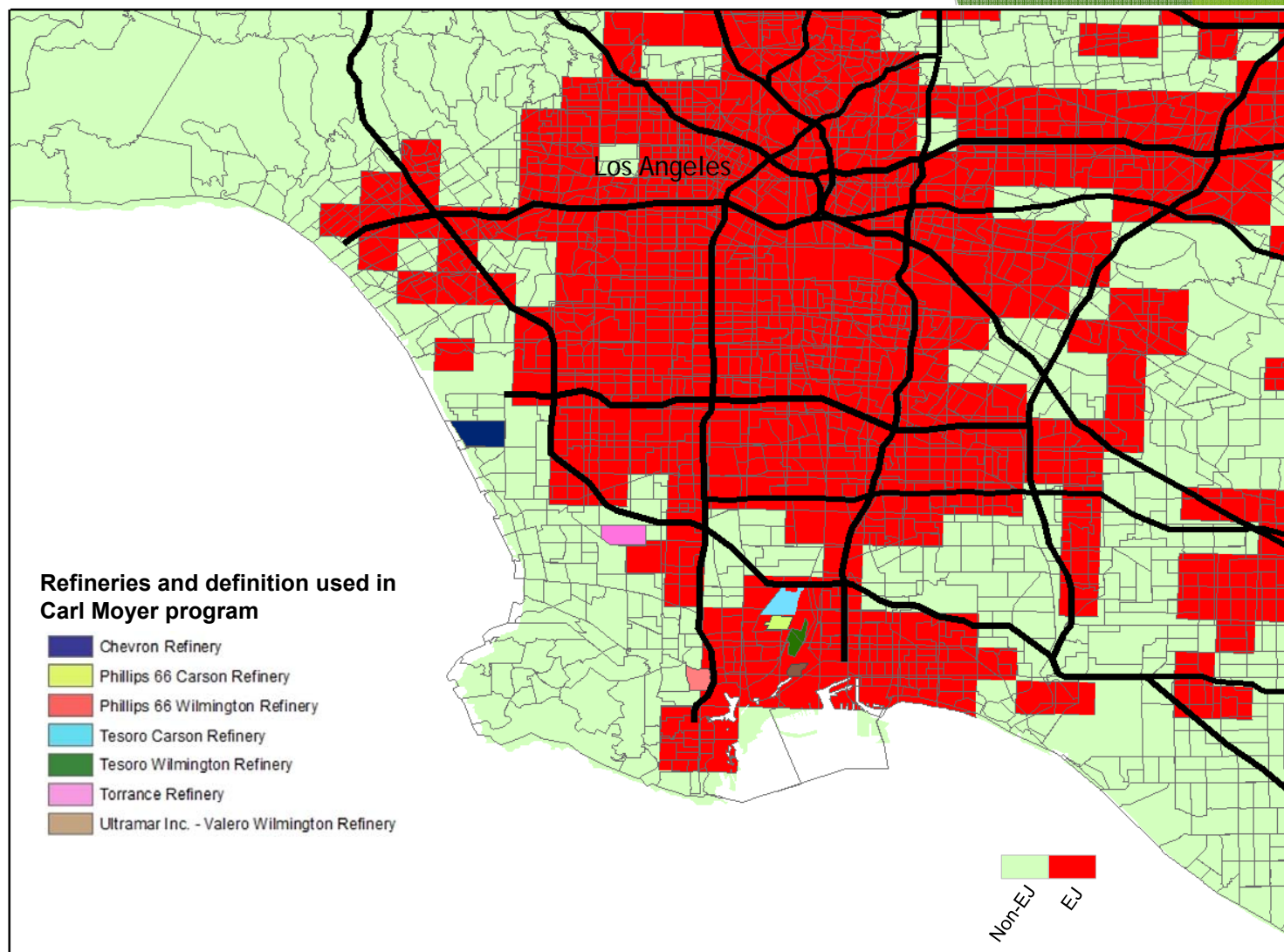
SCAQMD Definition
(Carl Moyer Program)

- 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.
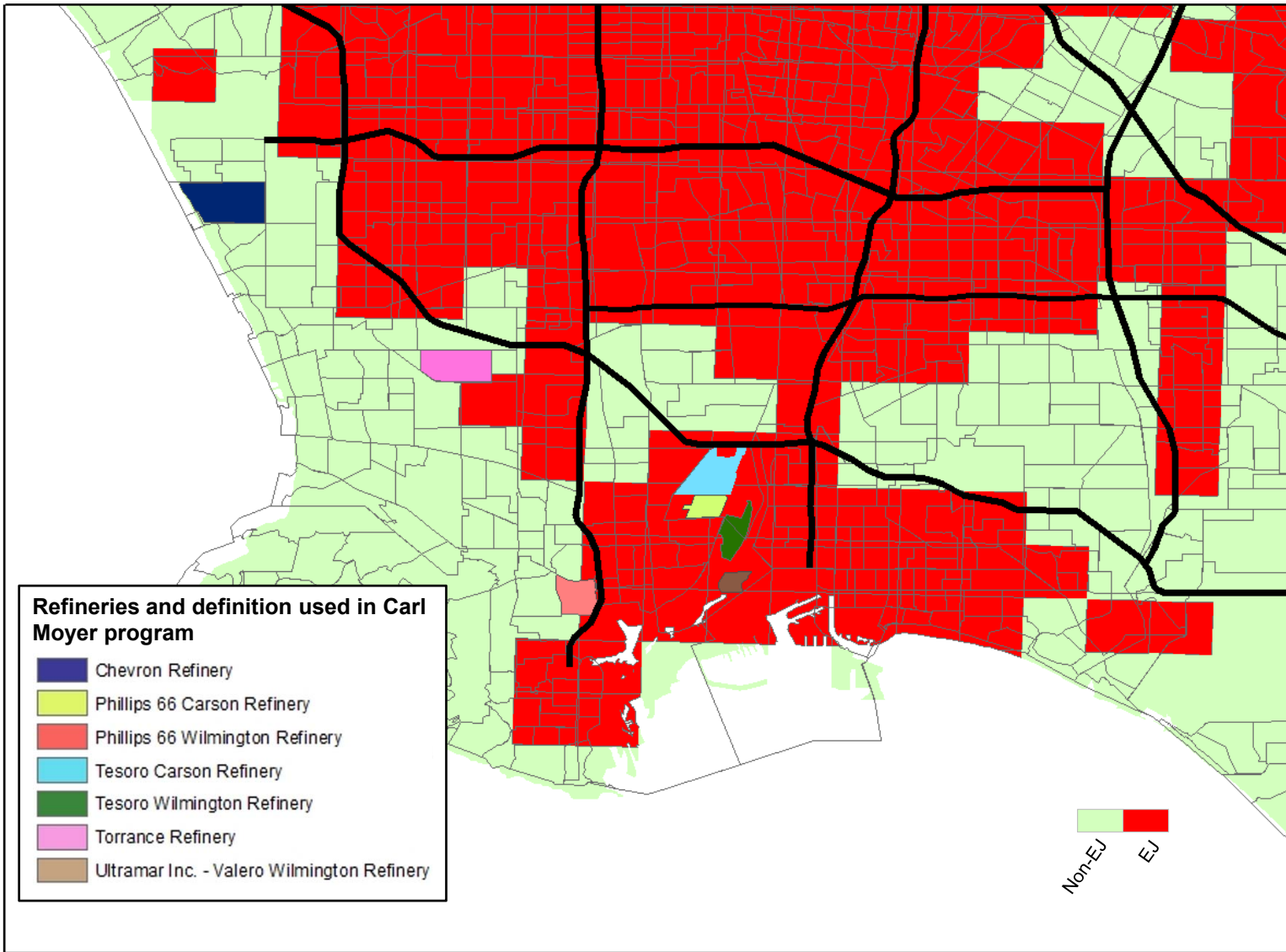
- *Annual mean PM2.5 concentration > 11.1 µg/m3*

- *Toxic cancer risk > 894 in a million*

- *(Updated over time)*

2016

Los Angeles

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

Non-EJ   EJ

Refineries and definition used in Carl Moyer program

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Non-EJ   EJ

AQMP EJ Definitions
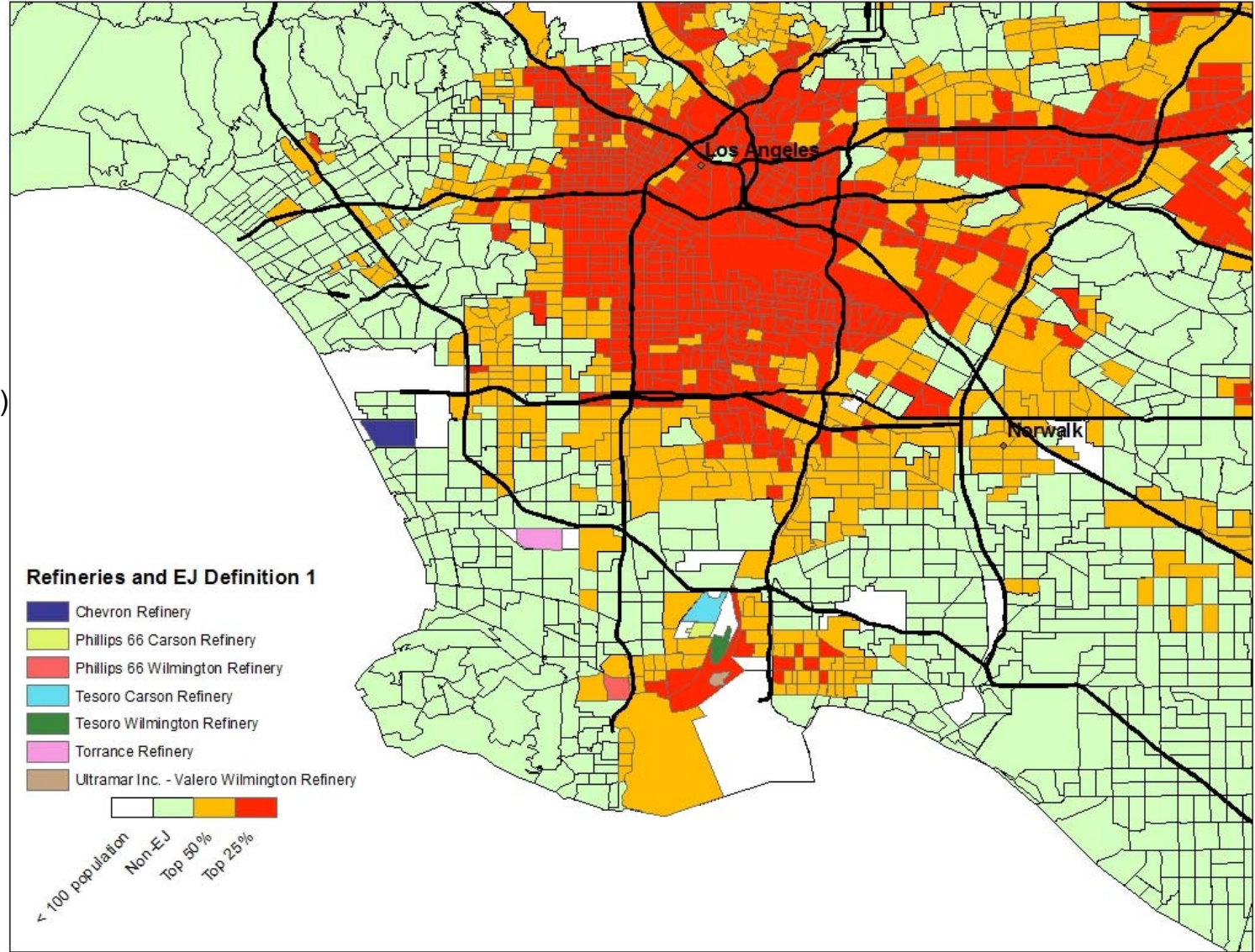
▶ Used raw data from CalEnviroScreen 2.0 to assign a percentile ranking based on the mean value, relative to the basin.

    ▶ 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.

Refineries and EJ Definition 1

- Chevron Refinery
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< 100 population   Non-EJ   Top 50%   Top 25%
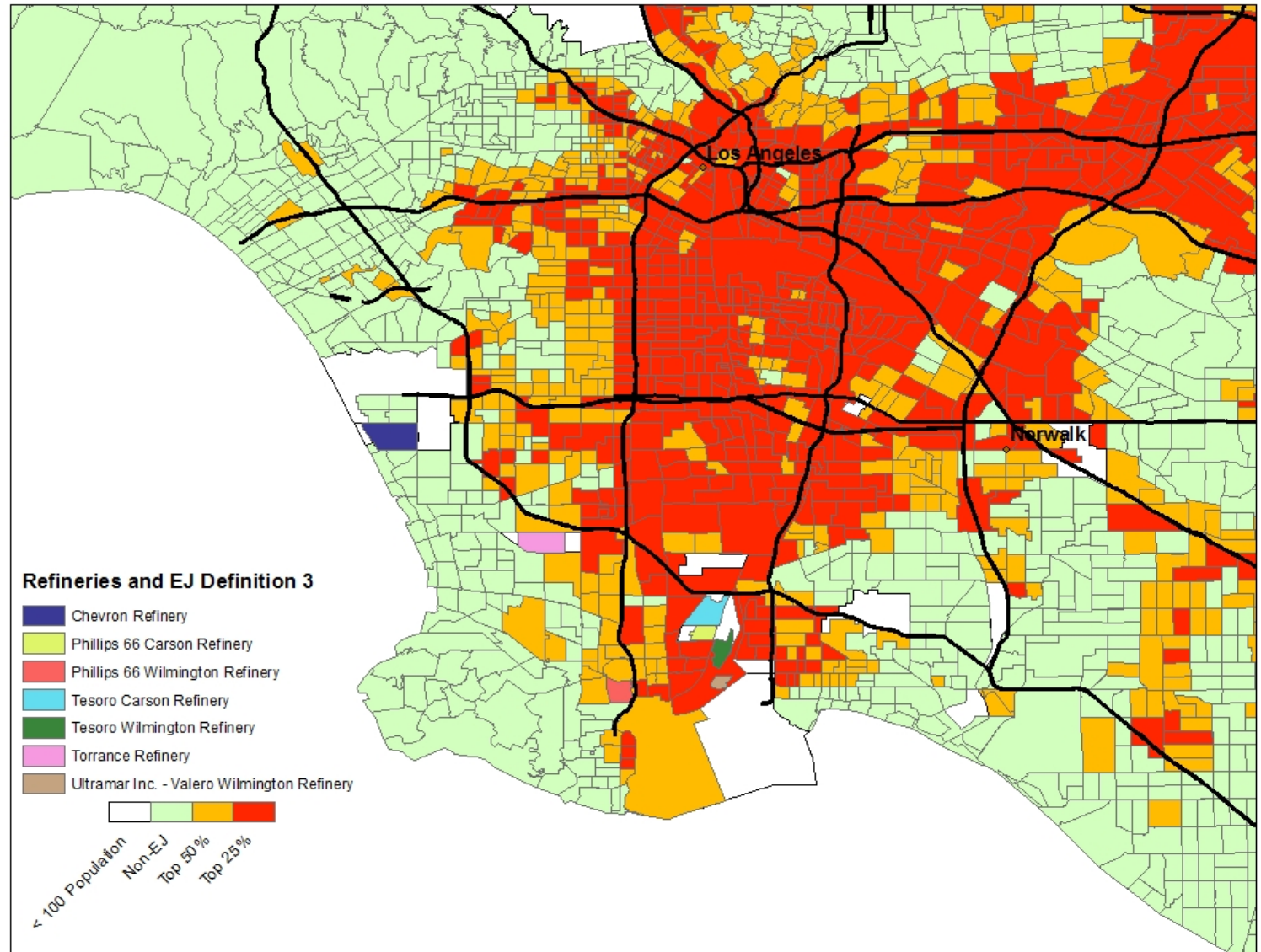
AQMP Definition 3

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

Refineries and EJ Definition 3

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< 100 Population | Non-EJ | Top 50 % | Top 25 %

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