

## AB32 Community Screening Approach

- Concepts for Discussion -

AB32 Public Health Working Group Meeting  
July 6, 2009

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## AB32 Specifies That...

- ◆ Prior to market mechanism...
- ◆ Consider direct, indirect, and cumulative emission impacts...
- ◆ In communities already adversely impacted by air pollution

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## Discussion Today

- ◆ Screening approach - concepts
  - e.g., overlay GIS map layers
- ◆ Examples - indicators of air pollution exposure
- ◆ Discussion of concepts

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## Examples of Data Layers for Use in Screening Approach

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## Ozone Exceedance Data

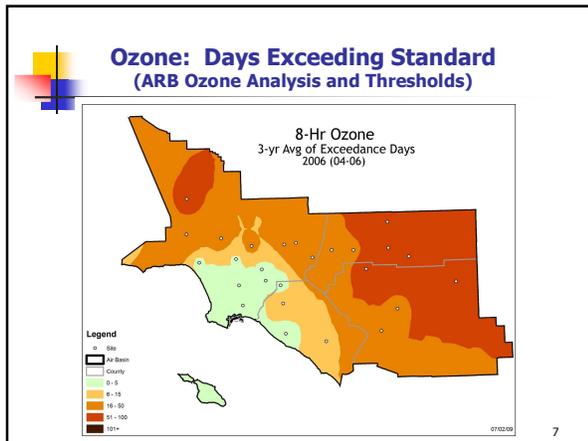
- ◆ Average of 3 years
- ◆ Interpolated from monitors to census tracts
- ◆ Values and/or days that exceed federal 8-hour ozone standard

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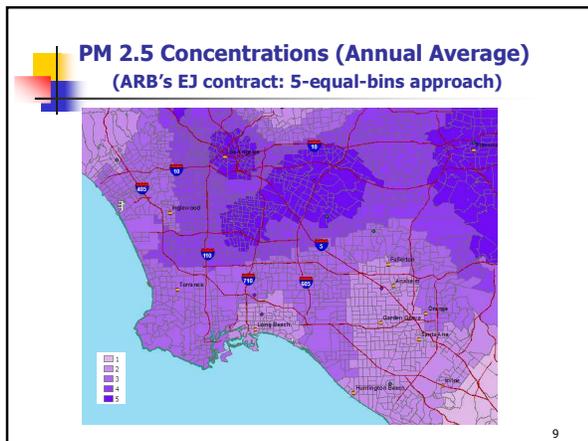
## Ozone: Concentration in Excess of Standard (ARB's EJ contract: 5-equal-bins approach)



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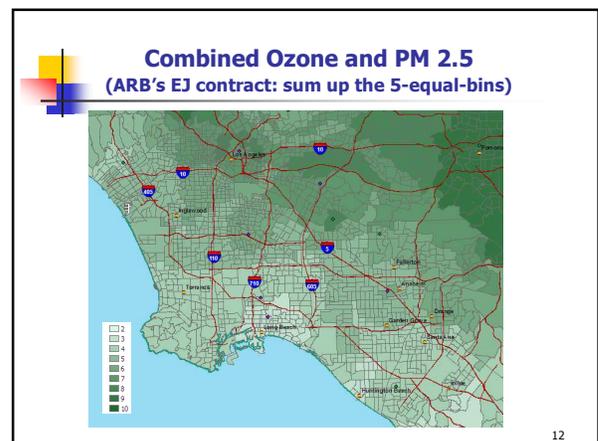
- ### PM 2.5 Concentrations
- ◆ Average of 3 years
  - ◆ Interpolated from monitors to census tracts
  - ◆ Measured air concentrations of fine PM
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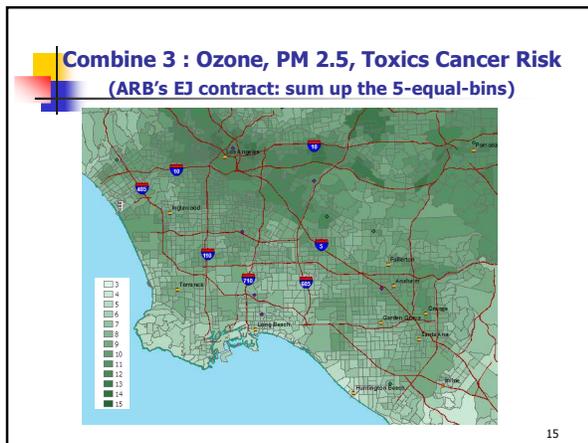
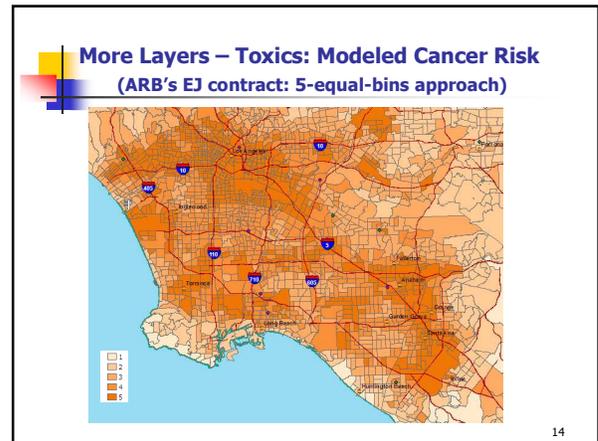


- ### Considerations for Breakpoints
- ◆ ARB's EJ research contract uses 5 equal bins
    - Ranking of values, 1 to 5 (quintile approach)
  - ◆ Health considerations for breakpoints
    - Threshold effects observed in literature
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### Combining Layers on Maps

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- ### Considerations for Combining Layers
- ◆ ARB's EJ research contract sums the 1-5 bins across all layers
  - ◆ Health considerations for combining layers
    - Relative weighting of layers, health impacts
    - Differing health endpoints, target organs
    - Sensitive age groups
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### Other Considerations

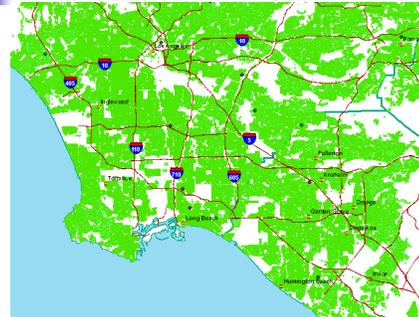
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## Land Use Layers

- ◆ Data quality varies by region
- ◆ **Residential zoning and/or population density**
- ◆ **Sensitive land uses**  
(e.g., schools, hospitals, child care...)
- ◆ **Proximity to hazardous land uses**  
(e.g., ports, railyards, major facilities)

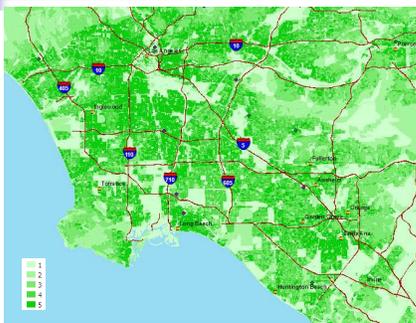
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## Residential Land Use Zones (ARB's EJ contract: Residential zoning only)



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## Population Density (Census Data – shown in 5-equal-bins)



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## Sensitive Land Uses (Schools, Hospitals...) (ARB's EJ contract: Count hazards near sensitive people)



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## Considerations for Residential Population

- ◆ **Residential land zoning - used in EJ contract**  
- Some population is not addressed
- ◆ **Population density**
- ◆ **Other options?**

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## Seeking Work Group Input

- ◆ **Appropriate indicator layers & breakpoints**
- ◆ **Combining layers**
- ◆ **Relative weighting**
- ◆ **Residential population density/land use options**
- ◆ **Hazard proximity methods for sensitive populations**
- ◆ **Other**

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