The State of Roadside Air Toxics Analysis in CEQA

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California Environmental Quality Act (CEQA)

State and local agencies must:

- Analyze and disclose to the public the environmental impacts of proposed projects
- Determine whether impacts to the environment are significant
  - Using significance thresholds
- Mitigate impacts to less than significant, or to the extent feasible

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Example CEQA Projects

- Housing development
- Wastewater treatment plant
- High school
- New freeway on-ramps
- Ski resort expansion
- City/County General Plan update
- Biomass power plant
- Motorsports race track
- Trucking distribution center
- New state park
- Zero emissions vehicle regulation

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Example CEQA Analyses

Scenario	Threshold Basis	Mitigation
Building houses near Swainson's hawk habitat	Proximity to active nests	Cease construction activity during nesting season
New airport runway near existing neighborhood	Noise exposure standards	Upgrade windows of affected houses; Limit take-off and landings
Roadway widening project	Filling a wetland	Alignment relocation; construct wetland at suitable offsite location
Building homes next to a freeway	?	setbacks, HVAC systems, vegetation

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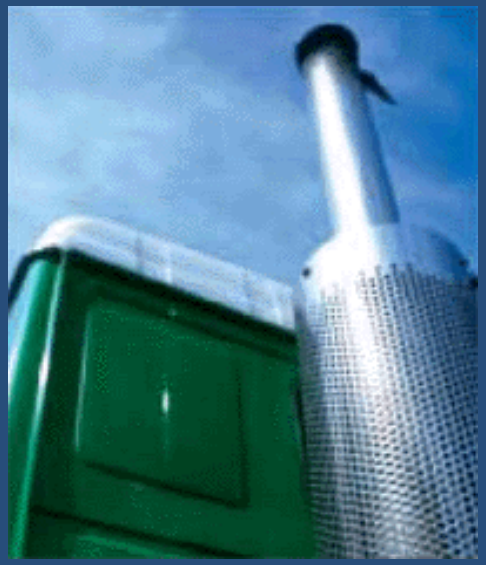
Current State of TAC Analysis

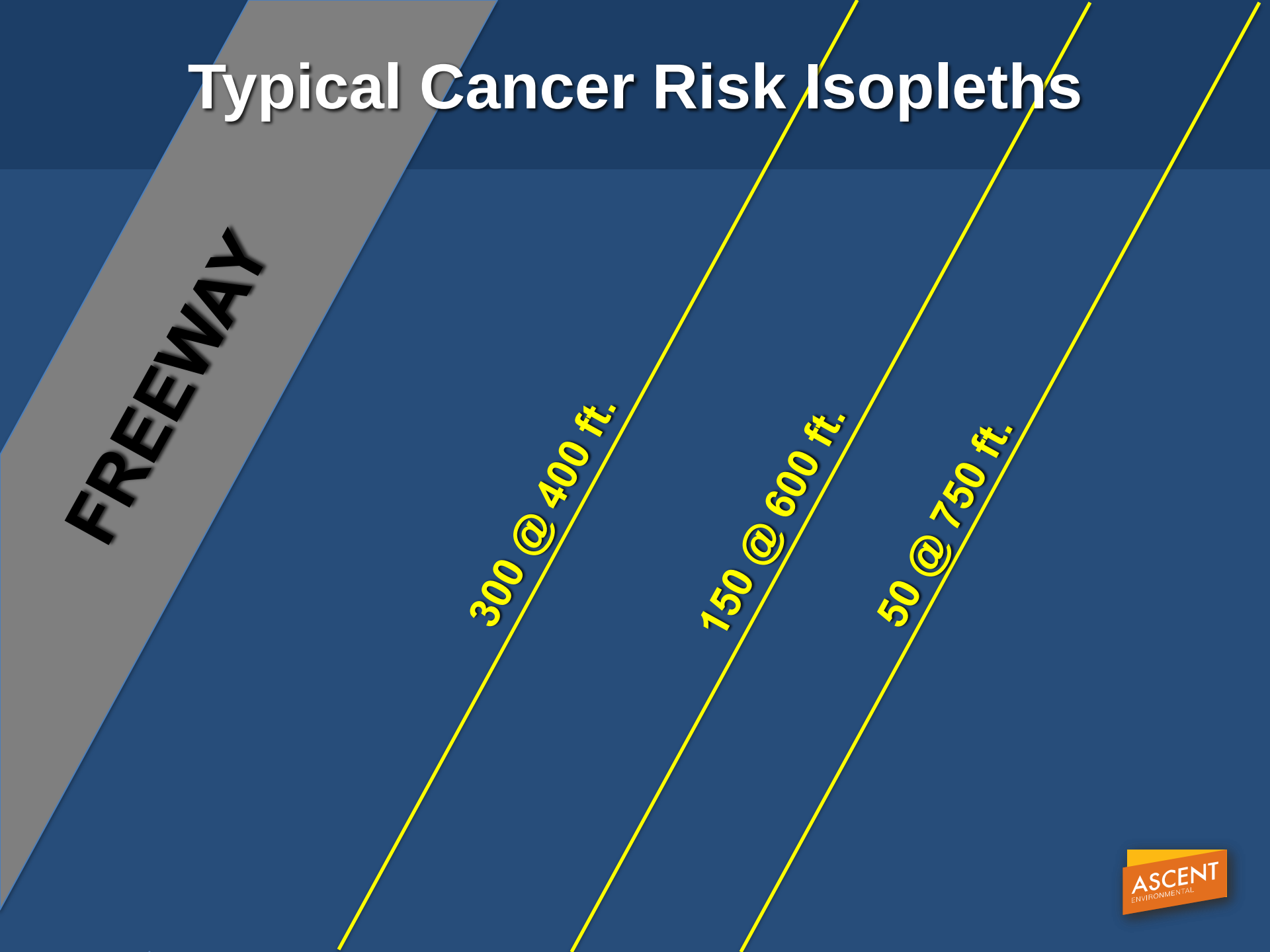
- Focus is on diesel particulate exhaust
- Little attention to non-cancer chronic risk or acute risk from freeways
- Very little attention to tire wear and brake wear



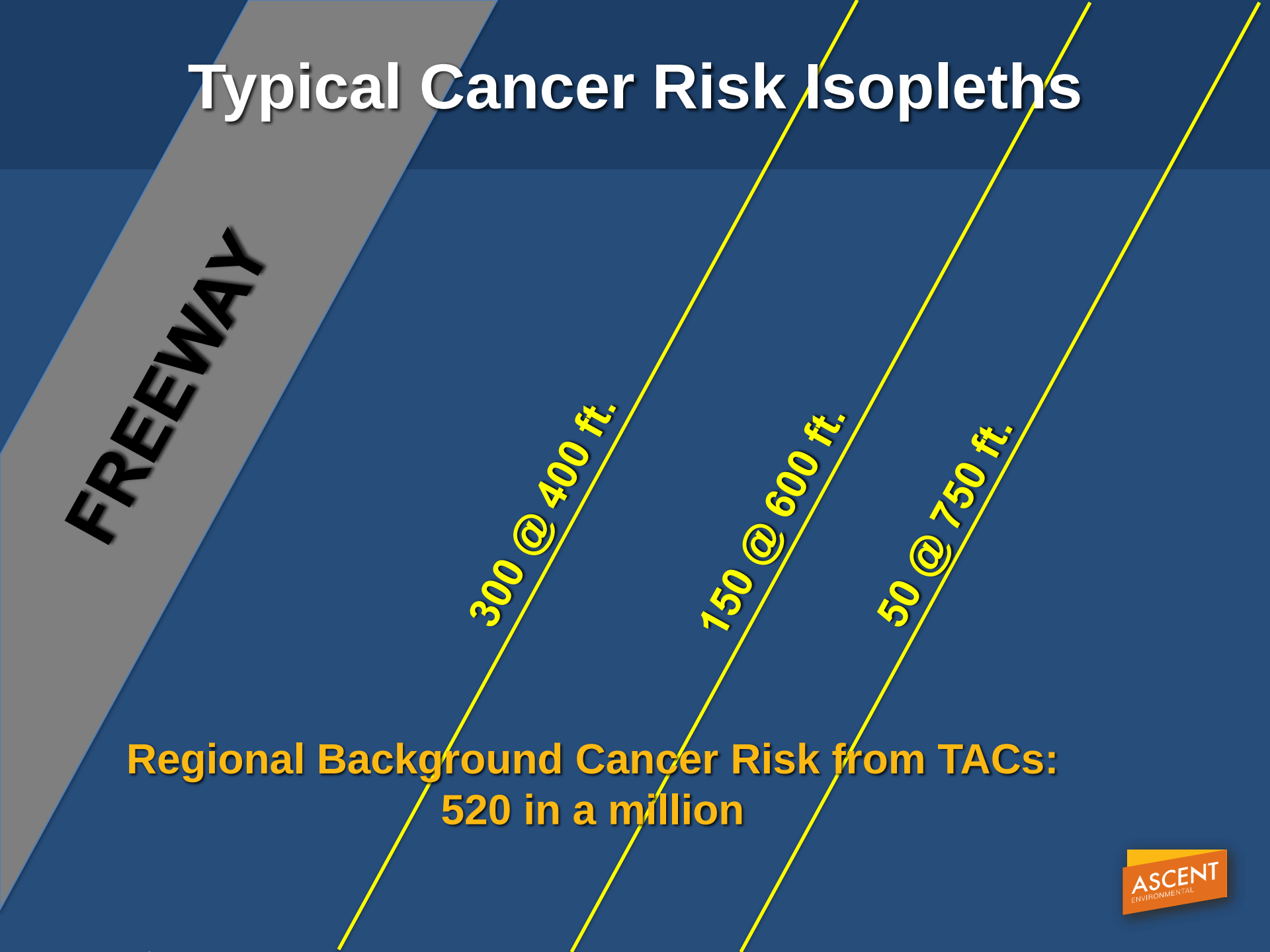
Cancer Risk Thresholds for TACs

	A	B
Scenario	Locating a new source of TACs near existing receptors	Locating new receptors near existing TAC source
Threshold	Incremental increase in cancer risk of 10 in one million	No established threshold!

Typical Cancer Risk Isopleths



Typical Cancer Risk Isopleths



Regional Background Cancer Risk from TACs:
520 in a million

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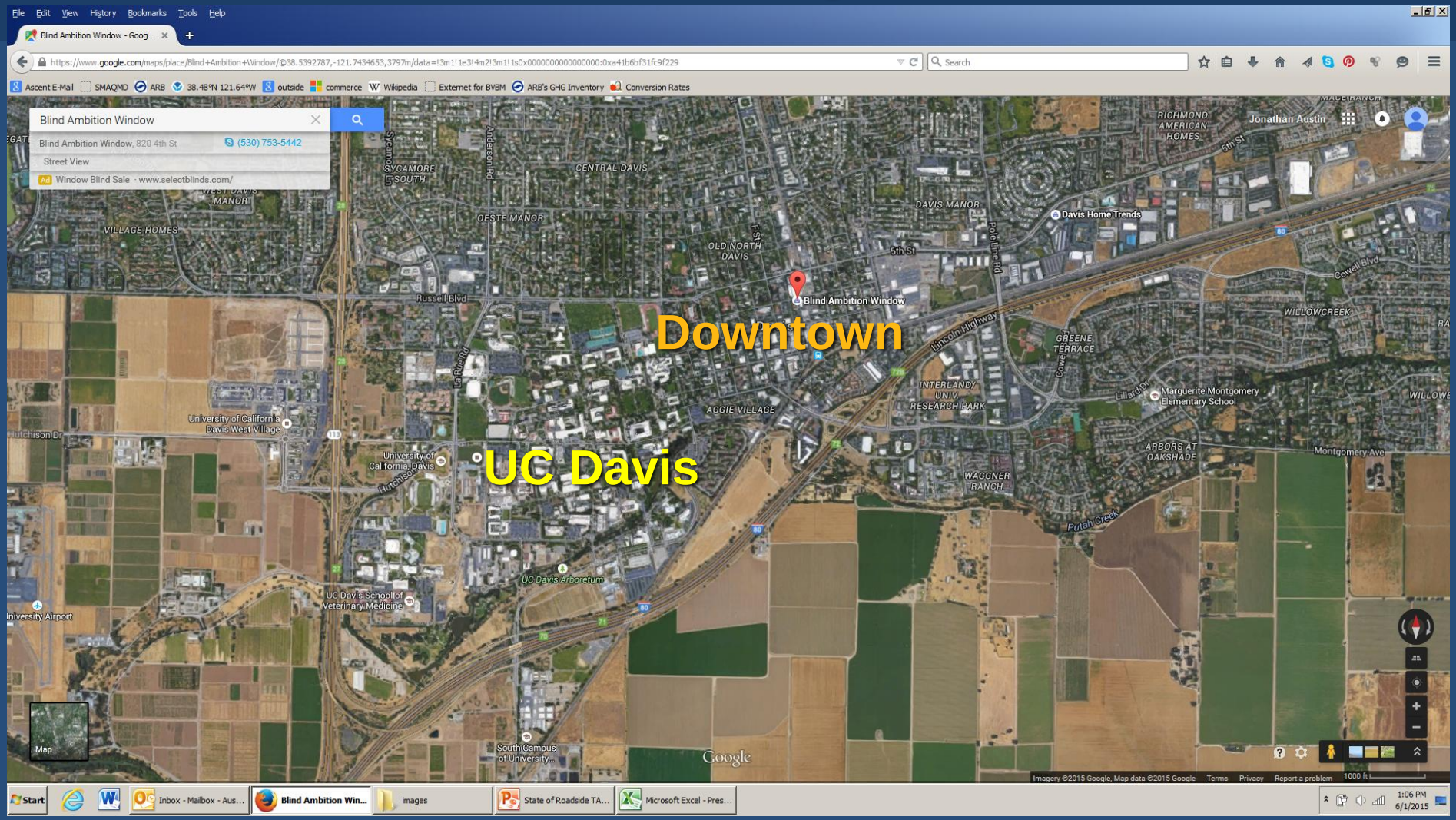
Infill vs. Sprawl



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Mitigation Measures

- Setbacks
- High-performing HVAC Systems
  - Better air filtration
  - Positively pressured buildings
- Noise barriers?
- Vegetation

A Call for Input

- How much air toxics risk is too much?
- Prioritizing diesel particulate, break wear, and tire wear
- Quantification of risk reduction achieved by mitigation
  - including vegetation

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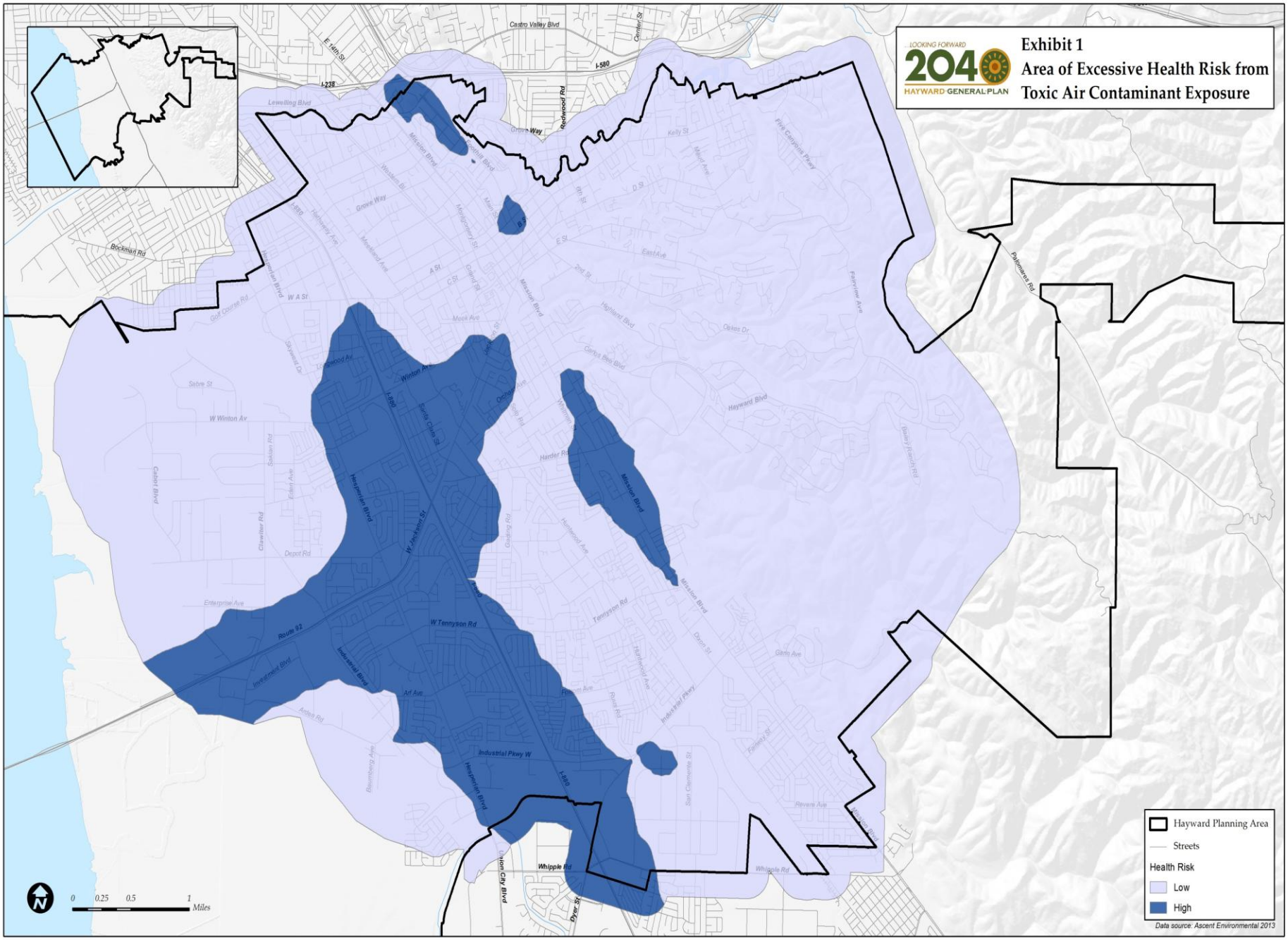

Cancer_Risk

January, 2014