



BAY AREA  
AIR QUALITY  
MANAGEMENT  
DISTRICT

AGENDA: 4

# **Regulation 2, Rule 5, New Source Review of Toxic Air Contaminants: Proposed Amendments**

**Stationary Source Committee Meeting  
February 1, 2016**

**Carol Allen**

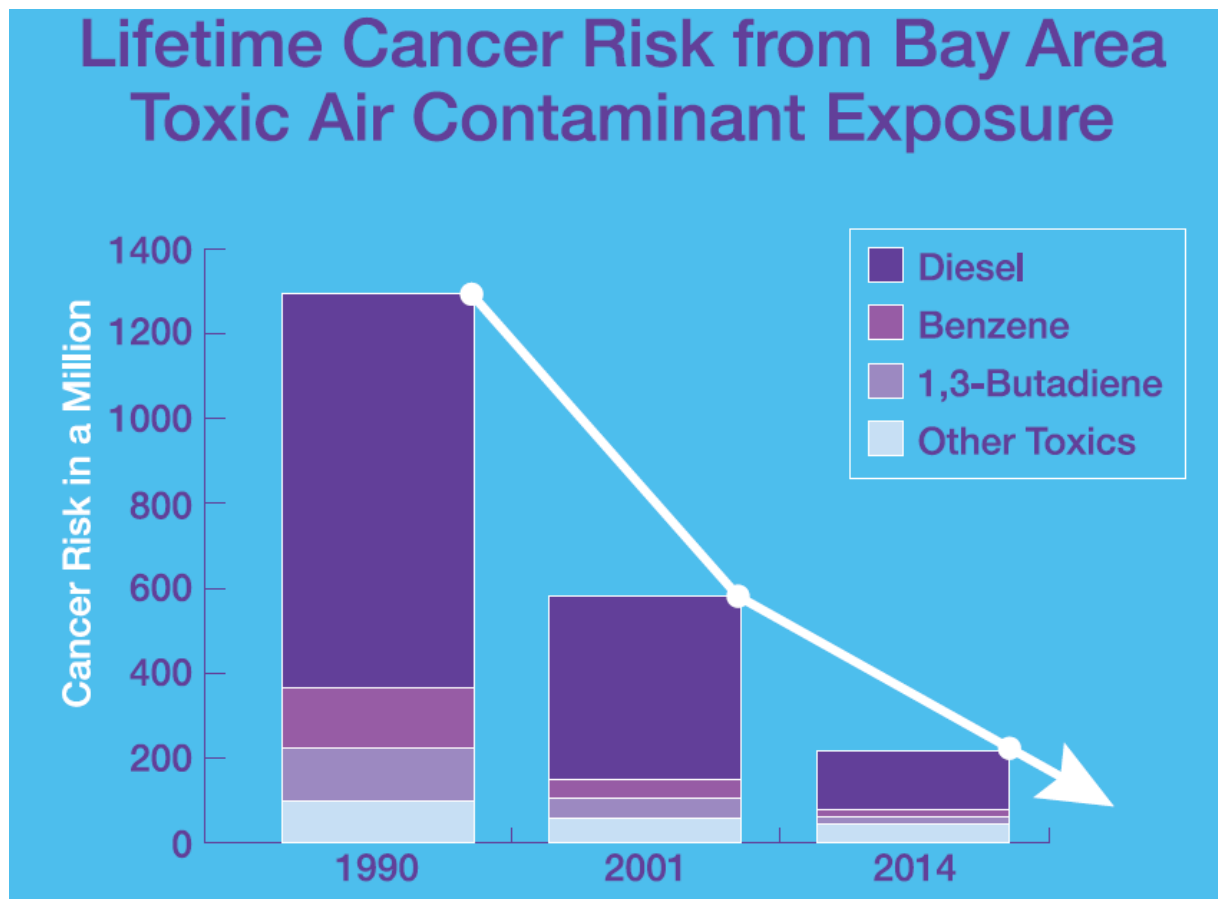
**Supervising Air Quality Engineer**

- **Background**
- **Statewide Guidance Changes**
- **Summary of Rule 2-5 and Need for Amendments**
- **Proposed Rule 2-5 Revisions and Expected Impacts**
- **Public Outreach and Next Steps**

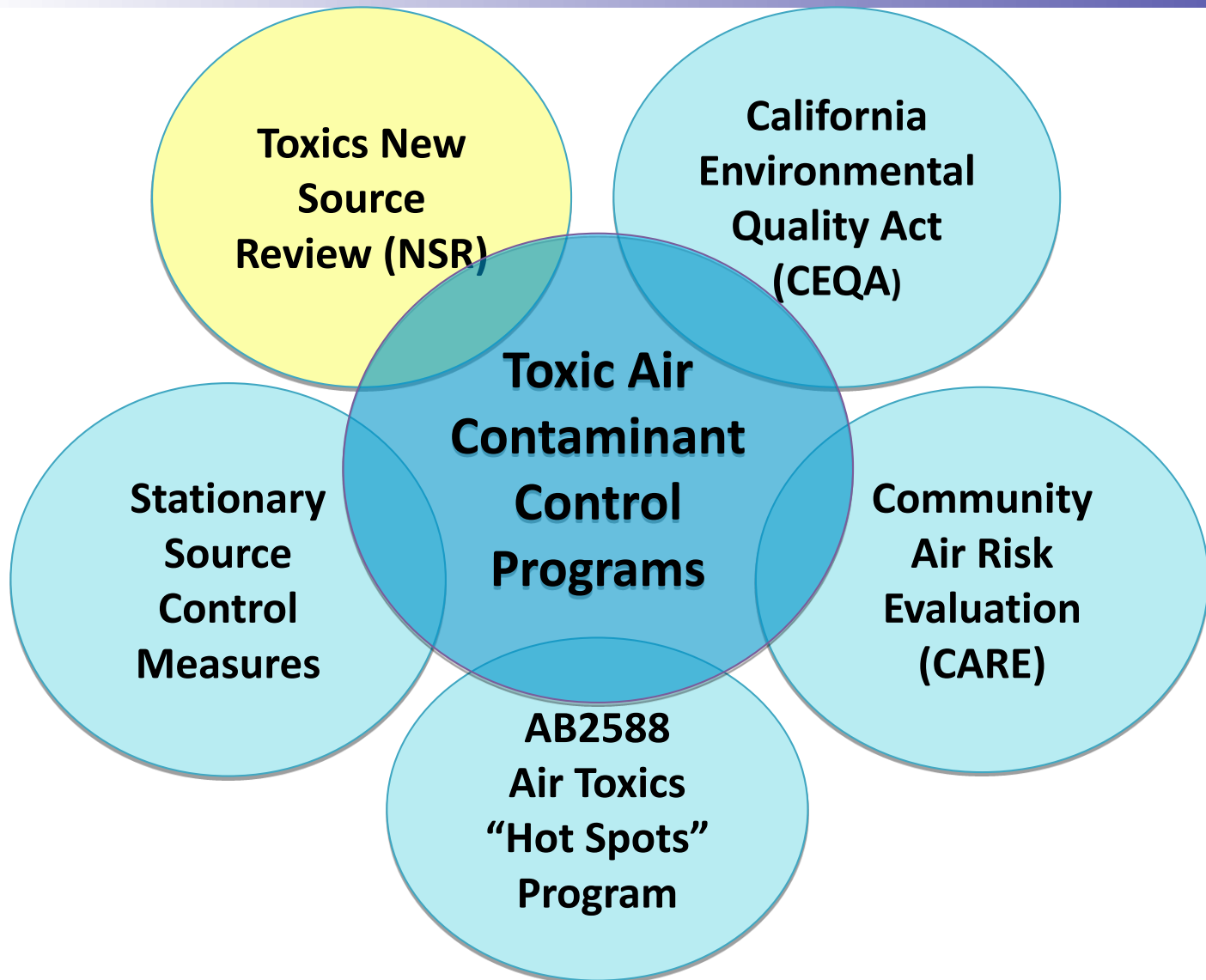


# Background

## 83% Reduction in Cancer Risk Since 1990



# Stationary Source Programs





# Statewide Guidance for Regulation 2, Rule 5

## ➤ **Health Risk Assessment (HRA)**

- A Set of Procedures Used to Calculate Health Risks
- Office of Environment Health Hazard Assessment (OEHHA) is the Cal/EPA Agency Responsible for developing HRA guidance for California toxic programs

## ➤ **Risk Management (RM)**

- Thresholds or Limits at Which Action is Taken
- California Air Resources Board (CARB) and California Air Pollution Control Officers Association (CAPCOA) provide RM guidance for stationary sources to Air Districts





# Regulation 2, Rule 5 New Source Review for TACs

## ➤ **Implements Air District's HRA Procedures and RM Policies through the Permitting Program**

1987: Initiated Toxic NSR Program

2005: Codified as Regulation 2, Rule 5

2010: Included Age Sensitivity Factors

## ➤ **Follows Statewide HRA and RM Guidance**

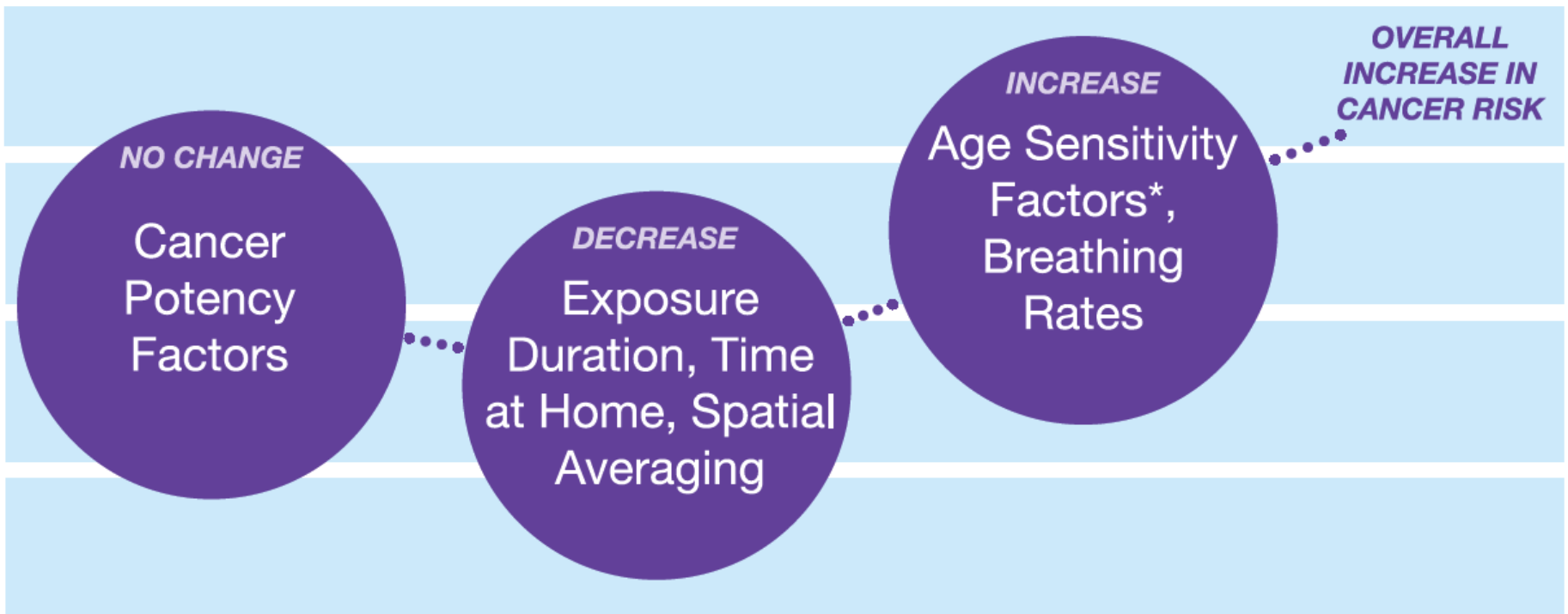
1999: SB25 – Children's Environmental Health Protection Act

2015: OEHHA, CARB & CAPCOA Updated HRA and RM Guidelines



# Health Risk Assessment Guideline Changes

## Impacts of OEHHA's HRA Guideline Changes on Cancer Risk





# Summary of Regulation 2, Rule 5

## ➤ Health Risk Assessment (HRA) Requirements

- Requires HRA if TAC Emissions Exceed a TAC Trigger Level
- Requires HRA be Completed per District HRA Guidelines

## ➤ Risk Management (RM) Requirements

- Requires TBACT if Source Risk Exceeds Thresholds:
  - Cancer Risk  $> 1.0$  in a million; Chronic Hazard Index  $> 0.2$
- Limits Total Project Health Risks
  - Cancer Risk  $\leq 10.0$  in a million; Hazard Index  $\leq 1.0$





# Proposed Rule 2-5 Changes

- **Update the Air District's HRA Guidelines to Incorporate the State's Guideline Changes**
- **Incorporate New and Revised Toxic Air Contaminant Trigger Levels**
- **Simplify TAC Emission Calculation Procedures for Modified Sources**
- **Update Regulation Language to Conform with State Guidelines**



# Impacts of Rule 2-5 Revisions

- For most projects, cancer risk will increase by about 40% compared to current procedures
- For projects involving multi-pathway TACs, cancer risk may increase by 2-5 times
- Less toxic emission increases will be allowed for new projects than allowed by current rule



# Impacts of Rule 2-5 Revisions

## ➤ Increase the Number of Projects Triggering HRAs

- About 100 more NSR HRAs per year

## ➤ Increase the Number of Projects Required to Implement Risk Reduction Measures

- About 80 more projects per year
- Potential Gasoline Throughput Limits:  
2-14 million gallons per year

## Open Houses

- **January 28, 2016**  
5-7 pm  
**Redwood City**  
Sequoia High School
- **February 2, 2016**  
6-8 pm  
**San Jose**  
San Jose Elks Lodge
- **February 4, 2016**  
6-8 pm  
**Richmond**  
Performing Arts Center

## Documents Posted on Web Site:

[http://www.baaqmd.gov/rules-and-compliance/  
rule-development/regulatory-workshops](http://www.baaqmd.gov/rules-and-compliance/rule-development/regulatory-workshops)



# Next Steps

- **Public Comment Open Through:**
  - **March 9, 2016**
  
- **Board Hearing Likely By:**
  - **Summer 2016**





# AB 2588 Air Toxics “Hot Spots” Update

## Stationary Source Committee

**Eric Stevenson**  
**Director of Meteorology, Measurements & Rules**  
**February 1, 2016**



# Overview

- Background
- AB 2588 Air Toxics “Hot Spots” Act
- Air District “Hot Spots” Program
- Updated Health Assessment Science
- Reducing Public Exposure to Air Toxics Risk



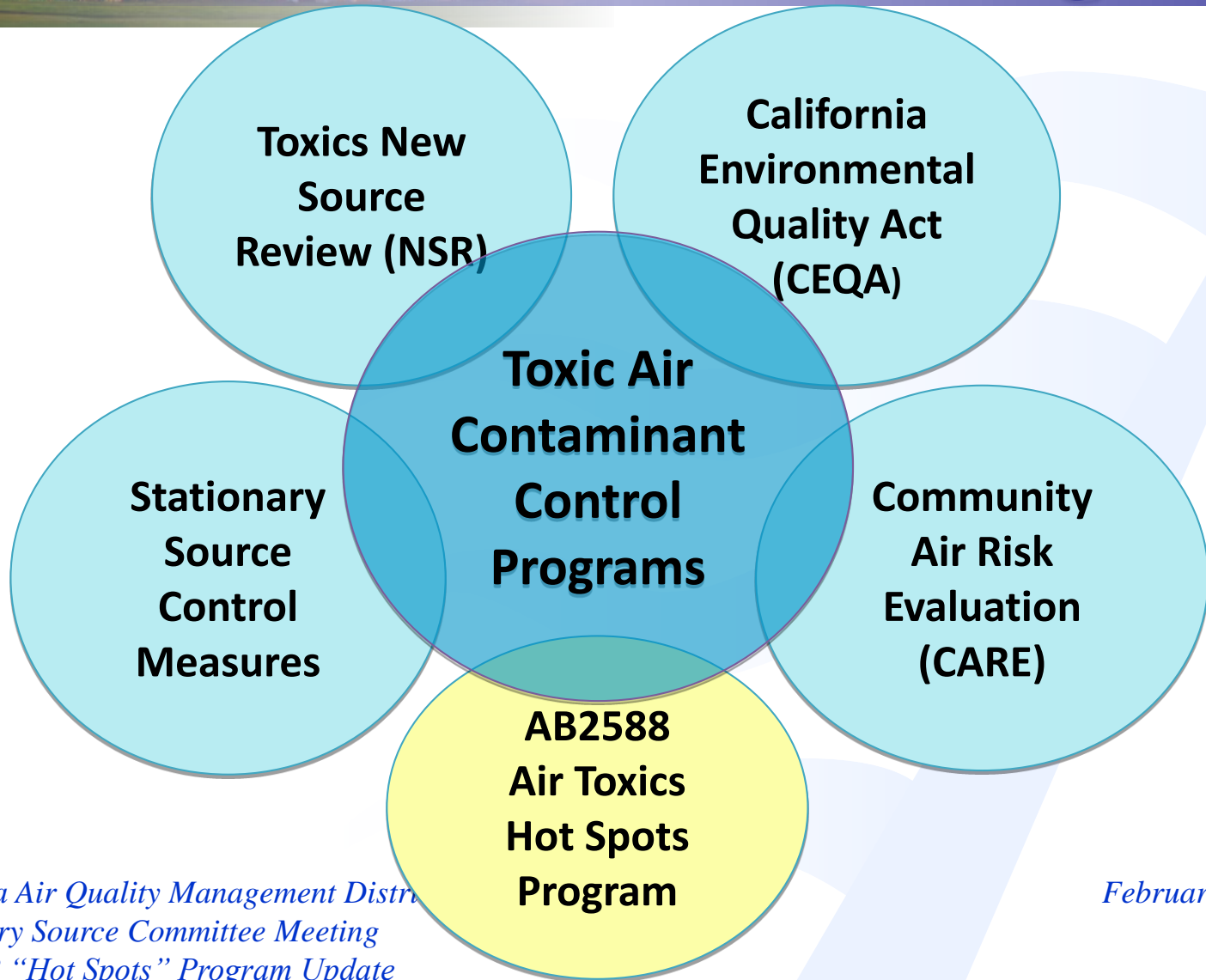
The background of the slide features a scenic view of the Golden Gate Bridge in San Francisco, California, spanning across the water under a clear blue sky. The bridge's iconic orange-red towers and suspension cables are prominent. In the foreground, there's a glimpse of a building and some greenery on the left side.

# Air Toxics “Hot Spots” Act

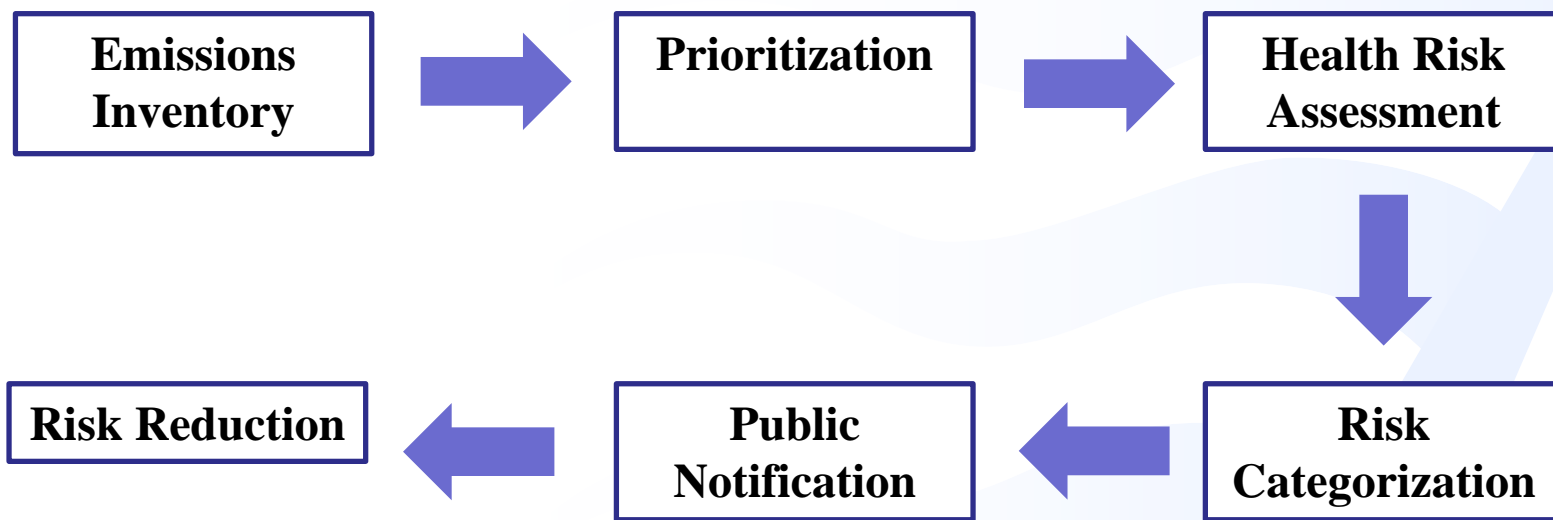
- Enacted in 1987
- Identify existing facilities with local health impacts
- Ascertain *facility-wide* health risks
- Affected facilities:
  - Report emissions of toxic air contaminants
  - Notify exposed residents of risk
  - Reduce risk



# Stationary Source Air Toxics Programs



# AB 2588 Process







# Health Risk Assessments

## Health Risk Assessment (HRA)

- A Set of Procedures Used to Calculate Health Risks
- Office of Environment Health Hazard Assessment (OEHHA) is the Cal/EPA Agency Responsible for developing HRA guidance for California toxic programs
- New Health Effects Values
- New toxic air contaminants (TACs)
- Hotspots Analysis and Reporting Program (HARP)

# Risk Drivers & Sources

## Drivers

- Diesel Exhaust: 86%
- 1,3-Butadiene: 4%
- Benzene: 3%
- Chromium VI: 3%
- Formaldehyde: 1%
- Other: 3%

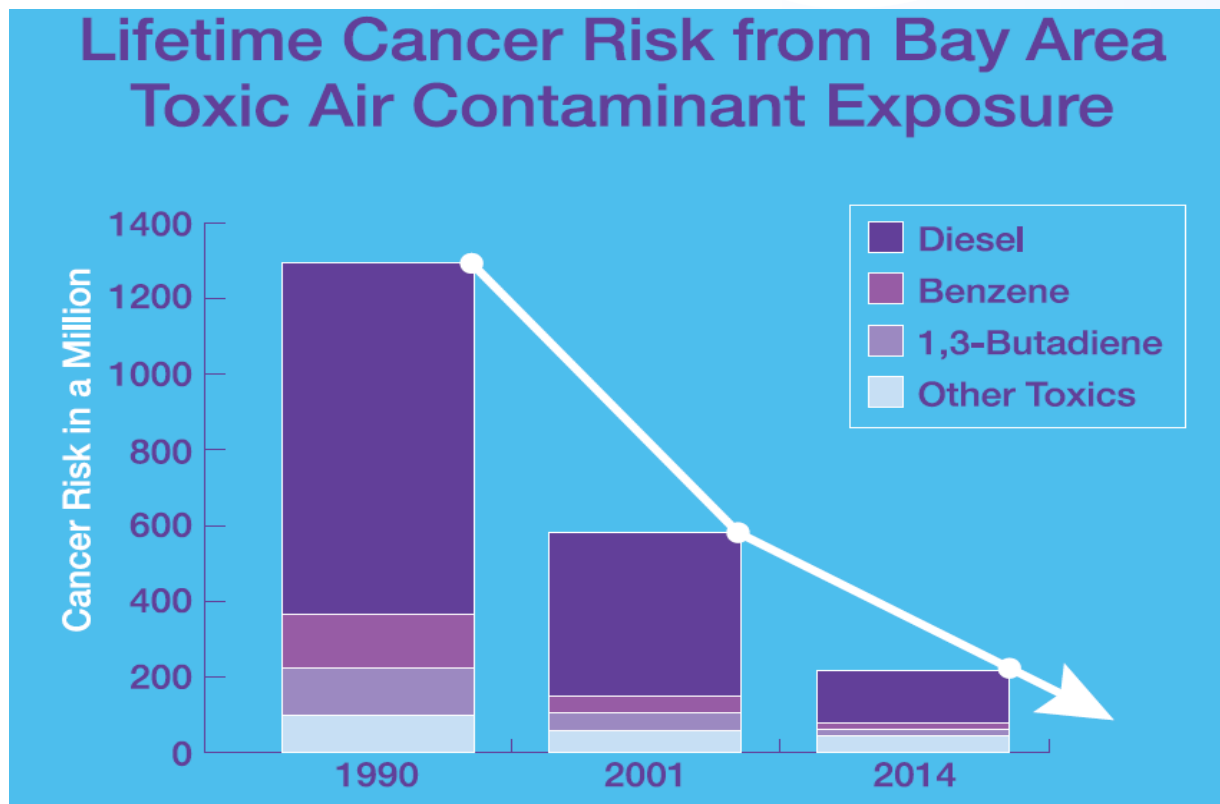
## Sources

- On-road Mobile Sources: 31%
- Construction Equipment: 29%
- Ships / Commercial Boats: 13%
- Indust. / Commercial Equipment: 7%
- Transport Refrigeration Units: 4%
- Farm Equipment: 3%
- Trains: 3%
- Other: 10%

Source: BAAQMD 2010 Clean Air Plan

# Risks Declining

## 83% Reduction in Cancer Risk Since 1990



A background image of a forest with tall trees and green ferns in the foreground.

# Protecting Public Health

## Revise Risk Management Threshold

- Cancer risk: 100/M to 25/M
- Non-cancer Hazard Index: 10 to 2.5

## Estimated Outcomes

- Notifications: 159 facilities
- Risk Reduction: 9 facilities



# Top Risk Facilities

- Petroleum Refineries
- Perchloroethylene Dry Cleaners
- Metal Melting Facilities (Foundries)
- Gasoline Stations



# Schedule

- **Begin Public Process**
  - Meetings & Consultations with Stakeholders
- **Update Stationary Source Committee**
- **Board Action – Fourth Quarter 2016**

