

Planned Air Pollution Research

Fiscal Year 2007-2008

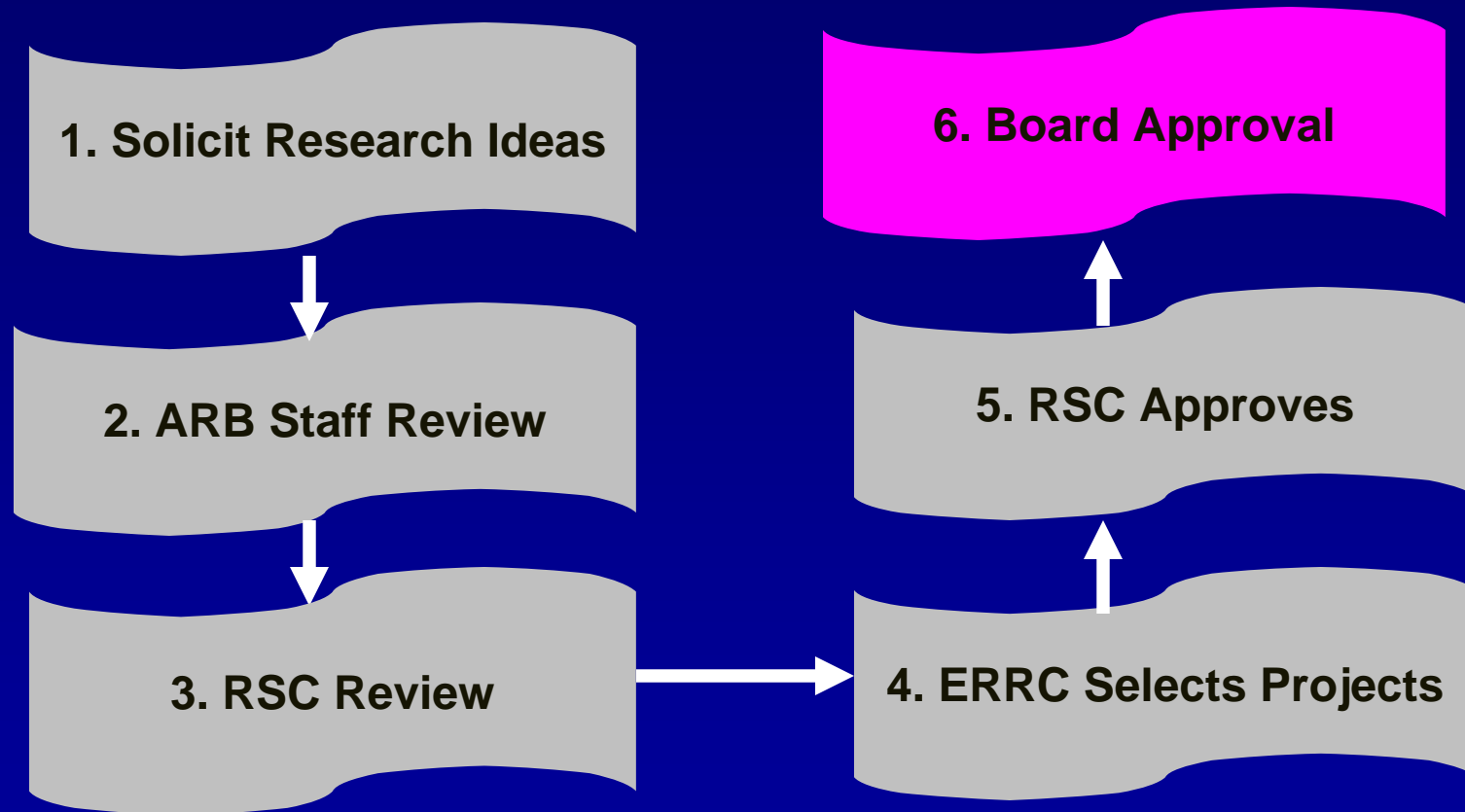
May 24, 2007

California Environmental Protection Agency



Air Resources Board

Research Planning Process

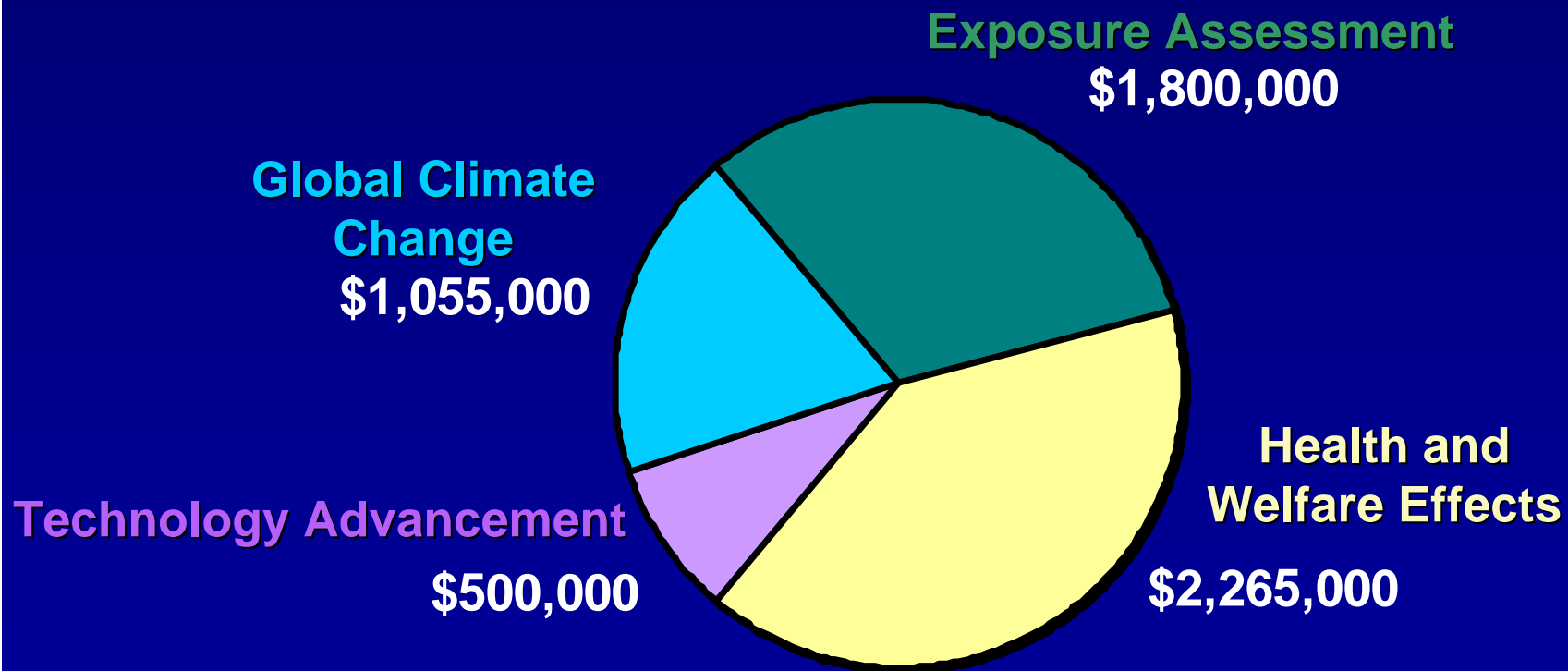


Categories

- **Health and Welfare Effects**
- **Exposure Assessment**
- **Technology Advancement and Pollution Prevention**
- **Global Climate Change**

Funding Allocations

\$5,620,000



Health and Welfare Effects

Health Effects from PM and Traffic

- **Improve exposure assessment of in-vehicle pollution among pregnant women and assess the potential health outcomes (\$450,000)**
- **Examine cardiopulmonary health effects and toxicities near-sources (\$450,000)**
- **Determine health benefits of anti-wood burning campaigns (\$100,000)**

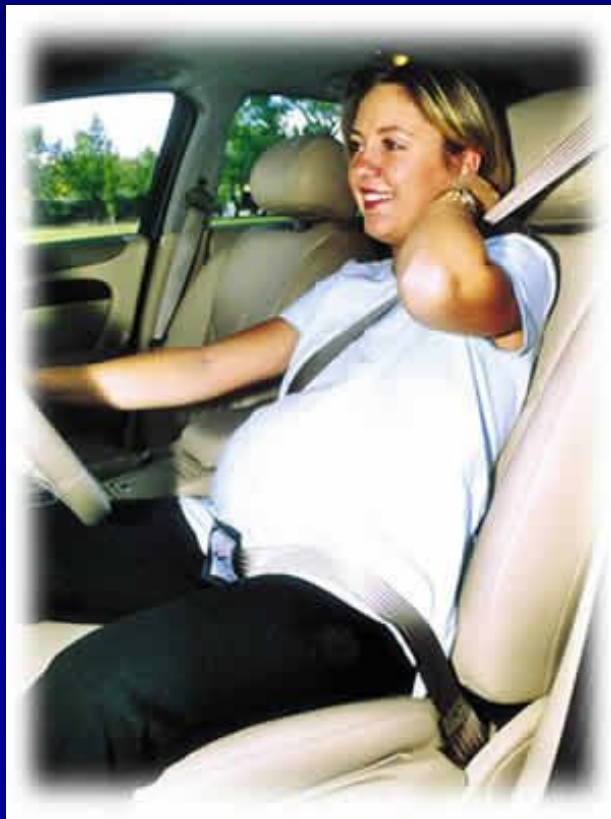
Health and Welfare Effects

(continued)

Asthma and Respiratory Disease

- Determine the effect of gene type on allergic airway inflammation (\$250,000)
- Identify asthma disparity among Californians (\$300,000)
- Assess childhood respiratory disease from pre- and post-natal air pollution exposure (\$715,000)

Pregnant Women and their In-Vehicle Air Pollution Exposure



Does in-vehicle air pollution adversely affect birth outcomes and childhood respiratory disease?

Exposure Assessment

Multi-Media

- Source apportionment of dry and wet deposition of mercury and other toxic metals (\$330,000)

Personal Exposure

- Survey of Californians' activity patterns for estimating exposure to air pollution (\$600,000)

Atmospheric Processes

- Measure and model biogenic VOC in central California (\$200,000)
- Source apportionment of carbonaceous components of PM (\$400,000)

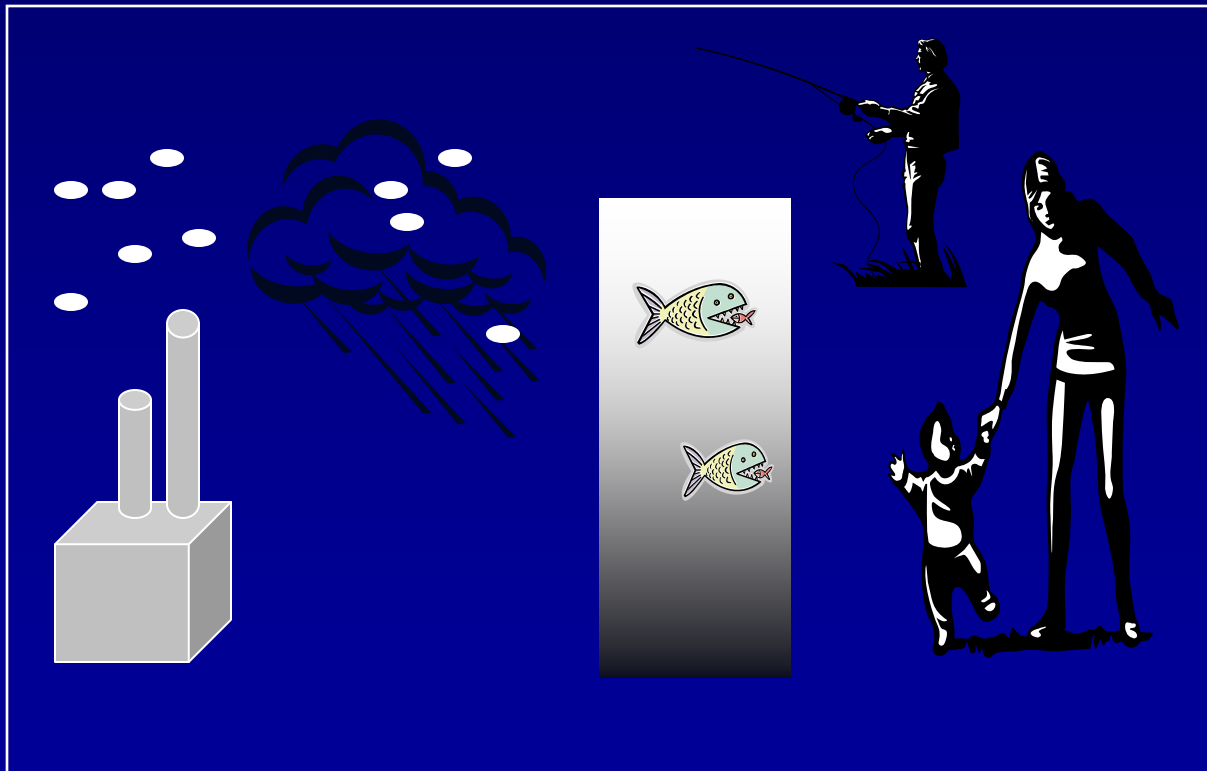
Exposure Assessment

(continued)

Emission Inventory

- Measure on-road motor vehicle emission measurements (\$95,000)
- Improve geospatial forecasting of marine vessels (\$40,000)
- Develop a California-specific intermodal freight transport model (\$200,000)
- Measure fumigant pesticide emissions (\$100,000)

Source Apportionment of Atmospheric Deposition of Mercury and Other Toxic Metals



**What is the
toxic metal
deposition
to California
water
bodies?**

Technology Advancement and Pollution Prevention

Enhanced Emission Monitoring

Evaluate PM Measurement Methods
(\$500,000)



Global Climate Change

Emission Inventory

- Develop an inventory for high global warming potential gases in specific applications (\$200,000)

Impacts

- Evaluate heat vulnerability under future scenarios (\$175,000)

Long-Range Transport

- Assess transport of PM from Asia (\$80,000)

Global Climate Change

(continued)

Mitigation

- **Assess the greenhouse gas mitigation industry in California (\$200,000)**
- **Evaluate industrial efficiency activities for achieving greenhouse gas emission reduction targets (\$100,000)**
- **Estimate life-cycle emission reductions from carbon content labeling (\$300,000)**

An Economic Analysis of Current Market and Prospects for Growth in the Global Economy



What is the potential for the emerging climate change mitigation industry in California?

Recommendation

**Approval of the
Planned Air Pollution Research
Fiscal Year 2007-08**

AIR POLLUTION RESEARCH

California Environmental Protection Agency



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