

Planned Air Pollution Research

Fiscal Year 2007-2008

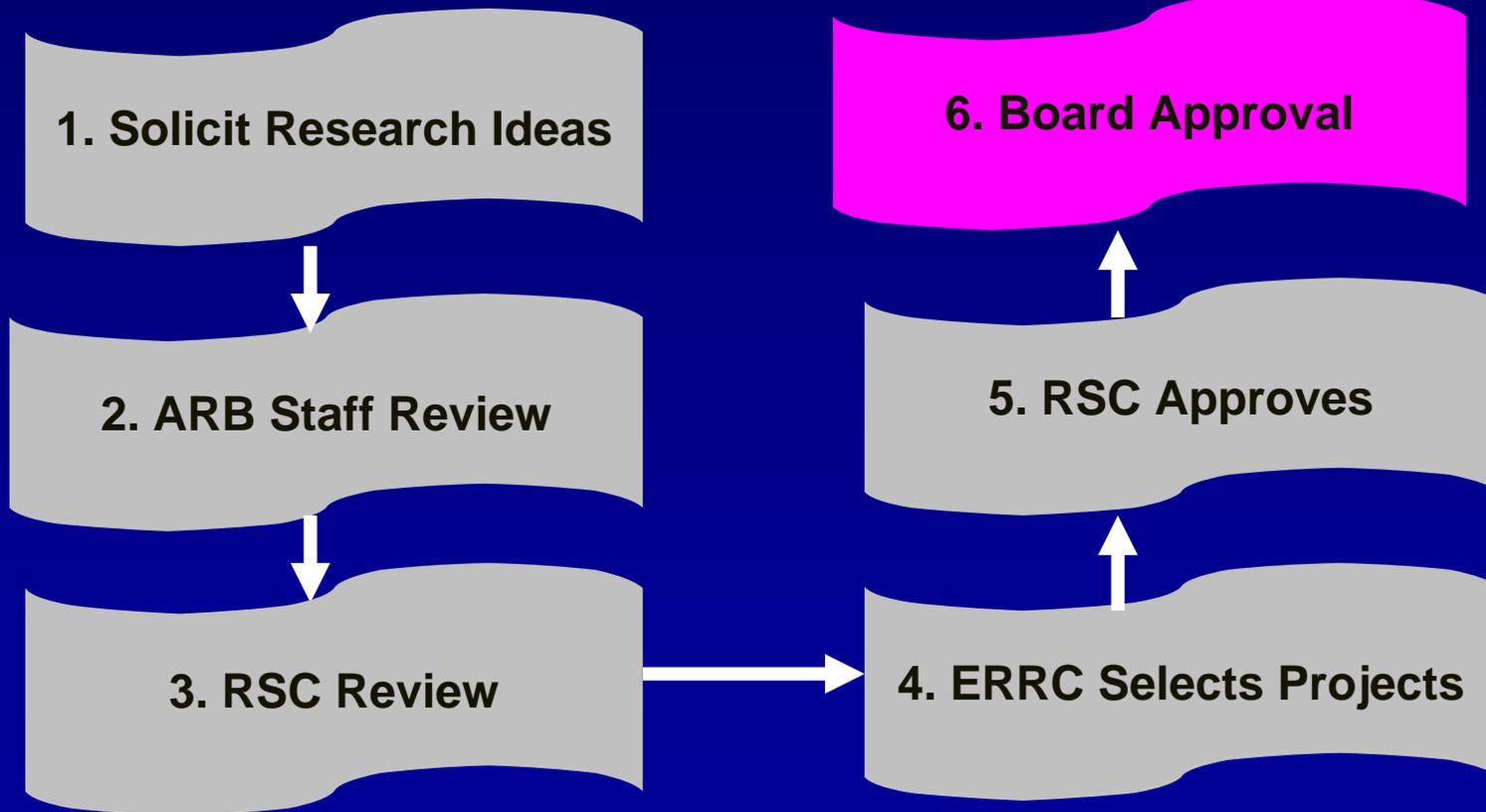
May 24, 2007

California Environmental Protection Agency



Air Resources Board

Research Planning Process

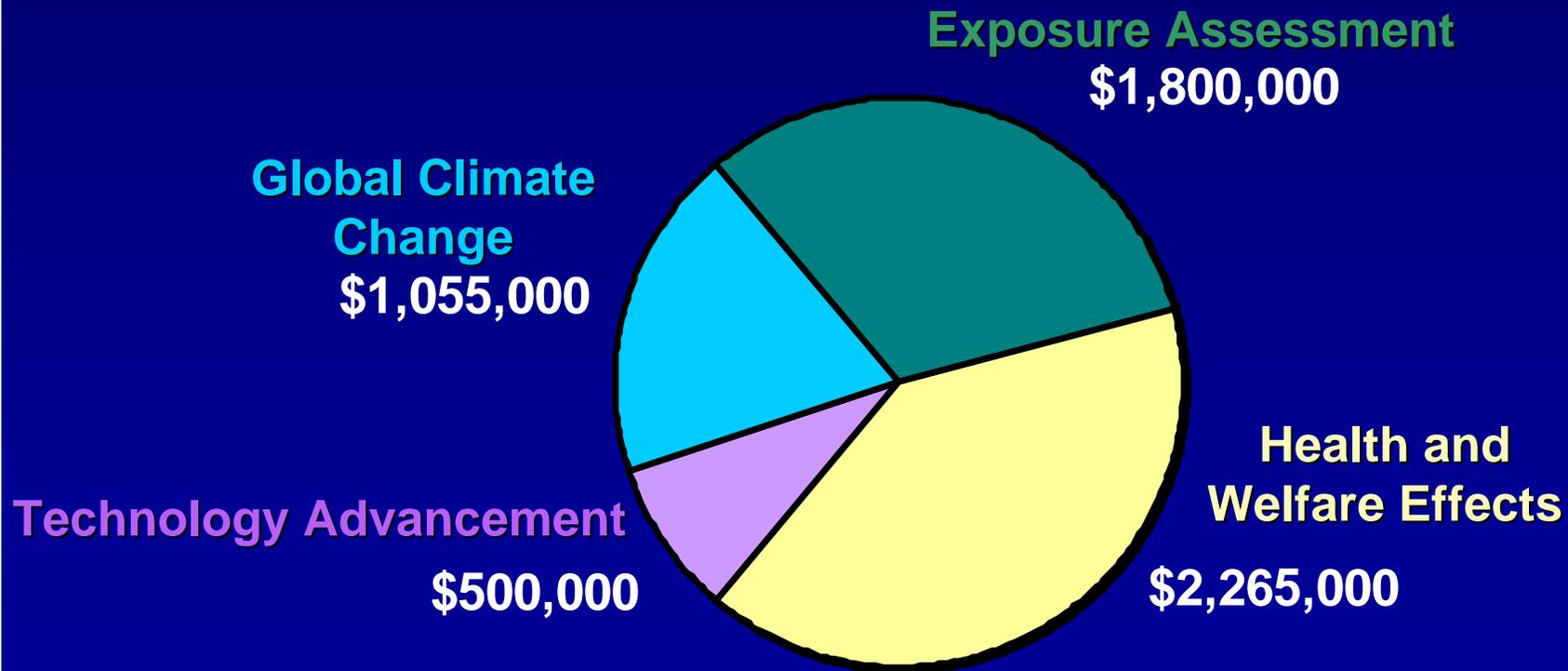


Categories

- **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)**

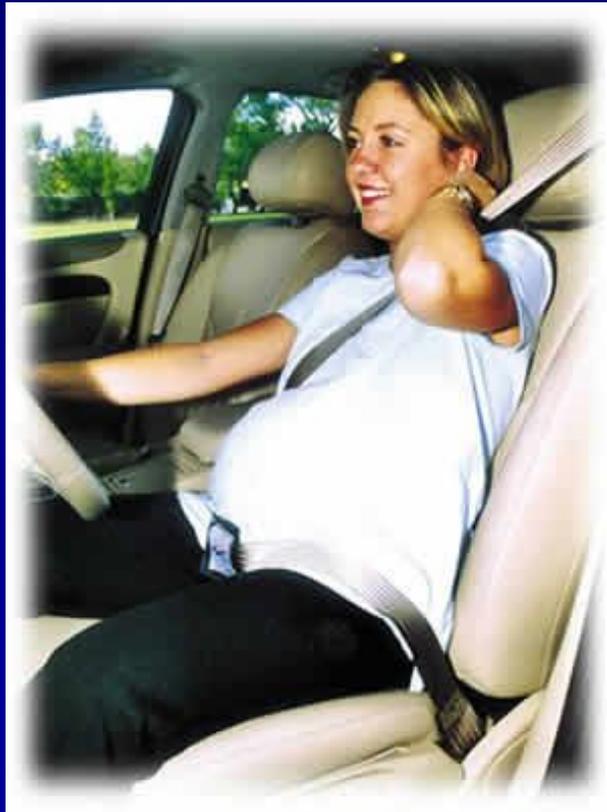
Health and Welfare Effects

(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)

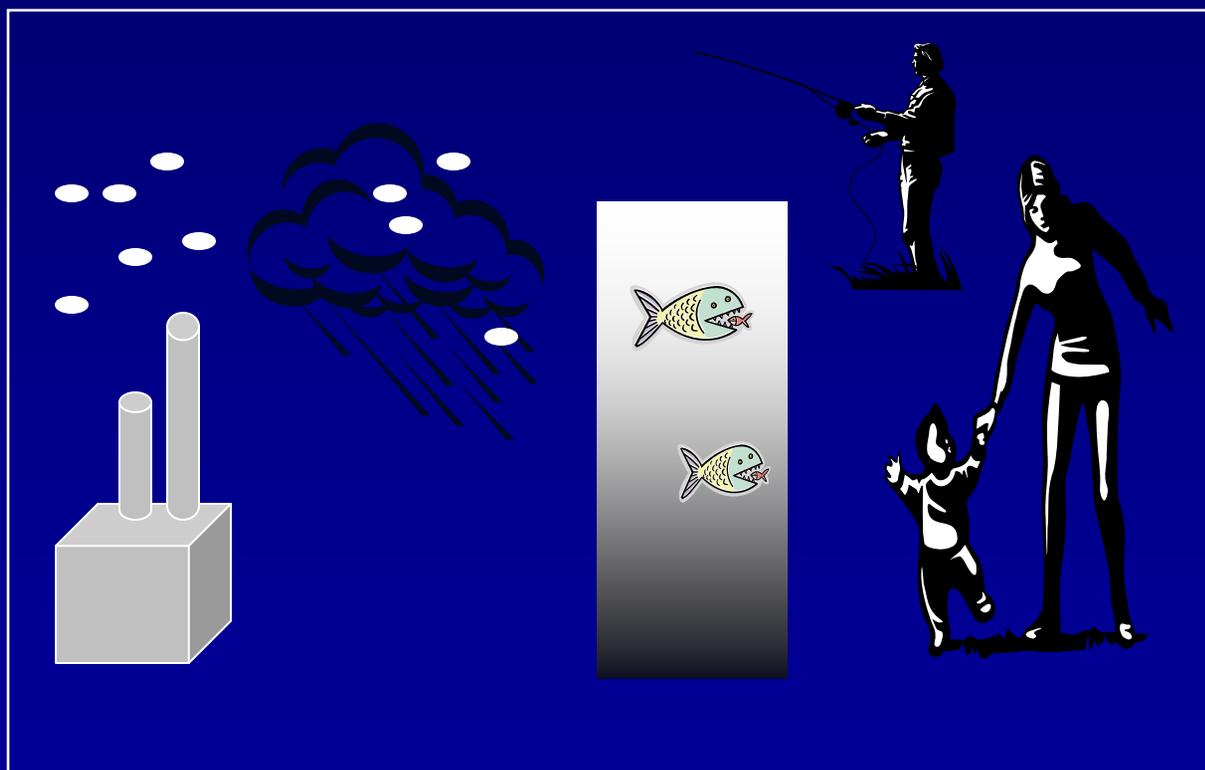
Exposure Assessment

(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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