# **Earth System Research Laboratory**

Serving Society through Science

## **Regional Air Quality and Public Health - Information for Decision Makers**

http://www.esrl.noaa.gov/about/dedication

Session Chair: Dr. James Meagher, James.F.Meagher@noaa.gov

### **Human Impacts**

NOAA

Tens of thousands of premature deaths and hospitalizations are attributed to poor air quality each year. Health and welfare costs are estimated at more than \$100 billion annually. More than half of the people in the U.S. live where the air quality does not meet EPA health-based standards.

### **Integrated Research**

Air quality research at ESRL provides an integrated program to assess the causes and potential solutions for poor air quality. The program includes laboratory studies, field experiments, and predictive model development.

### Modeling

Building on our improved understanding of the underlying science, we are developing the next generation of models for application in air quality forecasting, policy analysis, climate change, and weather prediction.

# Stating Upper-air Network Full tropospheric profilers Boundary-layer profilers NWS Rawinsondes NWS Rawinsondes NetRAD ExcAQS-II Enhancements Boundary-layer profilers Boundary-layer profilers Boundary-layer profilers Boundary-layer profilers Sind rawinsondes

County non-attainment

4 pollutants 3 pollutants 2 pollutants 1 pollutant

### **Decision Support**

New insights and understanding developed from NOAA's regional air quality assessments have had significant impact on National policies and regional strategies for air quality management.