

A photograph of the Portland skyline, Oregon, with several skyscrapers and a bridge visible. The scene is reflected in a body of water in the foreground. The text is overlaid on the image.

Portland Air Toxics Assessment

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Follow-up to the Study

- Program Evaluation
- Communication Plan
- Emission Reduction Strategies



Selection of CALPUFF

- Local-scale (neighborhood level) refinement
- Separate run for each pollutant
- Run in 5 separate components
 - On-road mobile (cars, trucks, buses),
 - Non-road mobile (construction, agricultural, recreational equipment),
 - Special (airport, marine vessels, rail),
 - Area sources (consumer products, residential heat, generators), and
 - Point sources (Title V, ACDP, dry cleaners)



Selection of CALPUFF

- Spatial Allocation

- Land Use Categories

- Residential (heating, consumer products)
- Commercial businesses (auto repair)

- Special polygons for special sources

- Construction projects

- Expanded population of point sources

- Dry cleaners
- Boilers
- Chrome electroplaters
- Degreasers



Program Evaluation

- Formal Air Toxics Geographic Plan for Portland
 - Baseline year
 - 10-year future analysis
 - Strategy analysis



Develop Communication Plan

- To build stakeholder understanding of air toxics issues
- To encourage voluntary actions
 - Neighborhood associations
 - Local governments
 - Business associations
 - Public health organizations
 - Environmental advocate groups



Develop Local Partnerships

- To work collaboratively with state and local government agencies to address air toxics issues
 - EJAG & ODOT I-5
 - OHSU
 - Sustainable Development Commission



Develop Early Reductions Strategy

- To collaborate with government, industry, and non-profits on pollution-reduction projects
 - Clean Diesel Initiative
 - Dry Cleaners
 - Automotive repair solvents



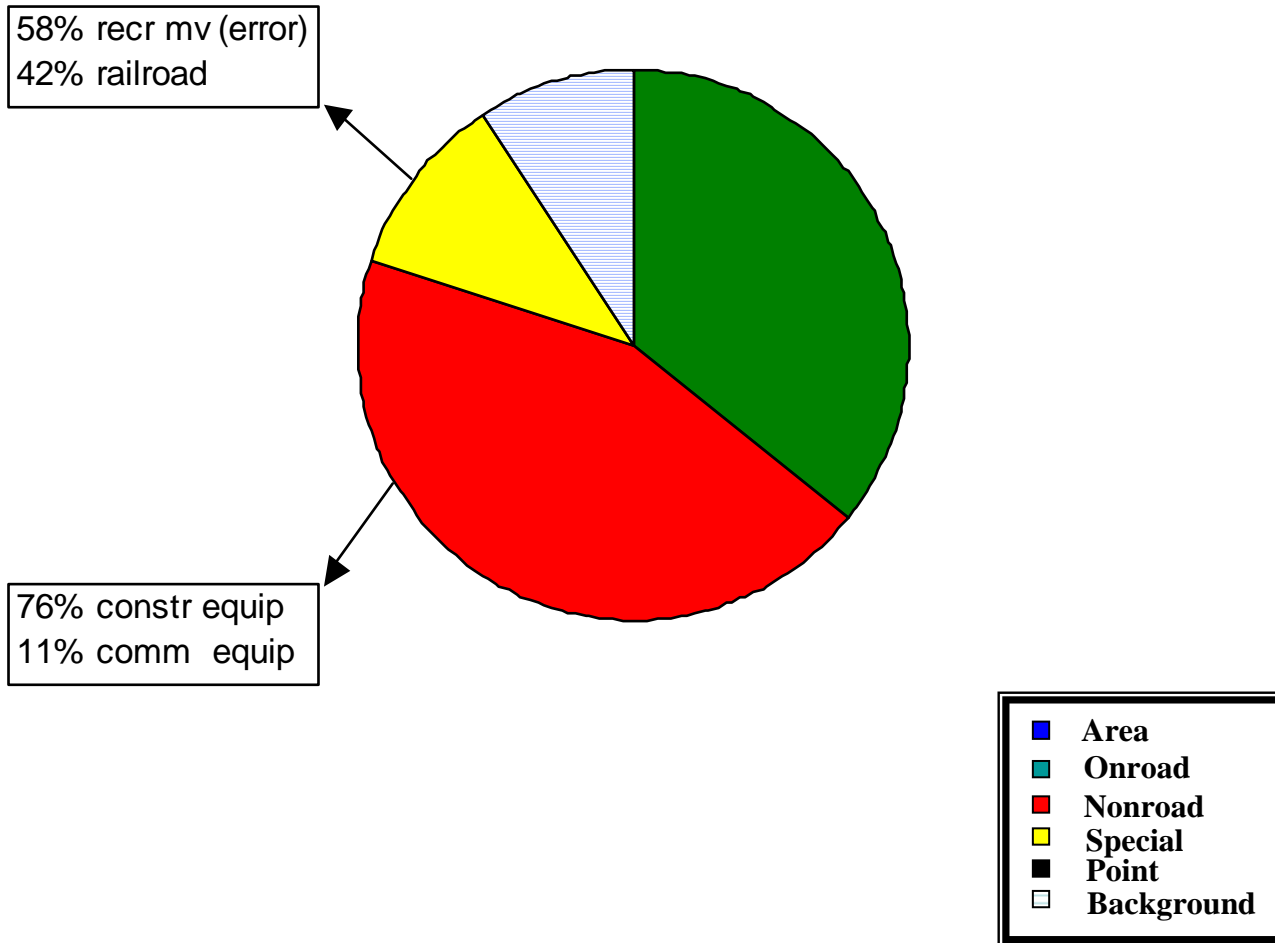
Summary of Results

Pollutant	Times over benchmark	Important Sources
Diesel PM	789.9	Construction equipment, on-road engines, Recreational Marine Vessels
Benzene	26.9	On-road engines, Residential Wood Combustion
Total Chromium	25.3	Surface coating of plastic parts
Primary Formaldehyde	16.9	On-road engines, construction equipment, railroads, RMV, airports
POM	16.1	RWC
Primary Acrolein	11.5	Structural fires
1,3 – Butadiene	6.7	On-road engines, lawn & garden equipment, RMV
Chloroform	2.0	Wastewater Treatment
Perchloroethylene	1.1	Dry cleaners, consumer brake cleaners
Primary Acetaldehyde	1.1	On-road engines, construction equipment



Diesel Particulate Matter

MULTNOMAH COUNTY



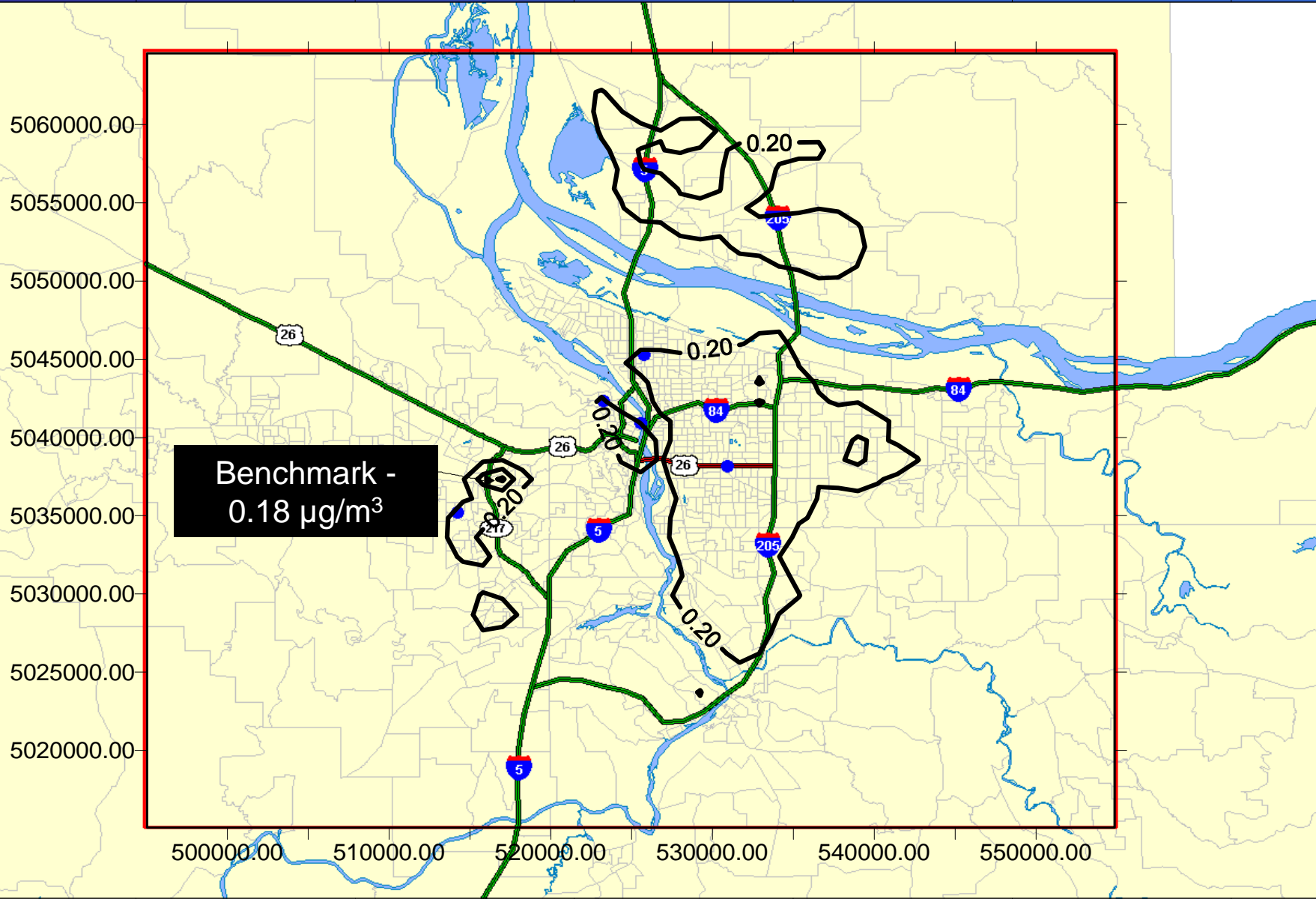
Clean Diesel Initiative

- ULSD & retrofits
- Anti-idling campaigns
- Biodiesel
- Construction projects



Perchloroethylene

(annual average concentration, $\mu\text{g}/\text{m}^3$)



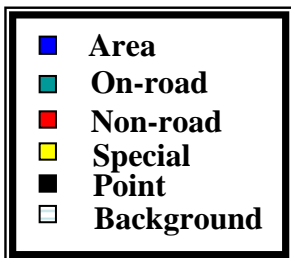
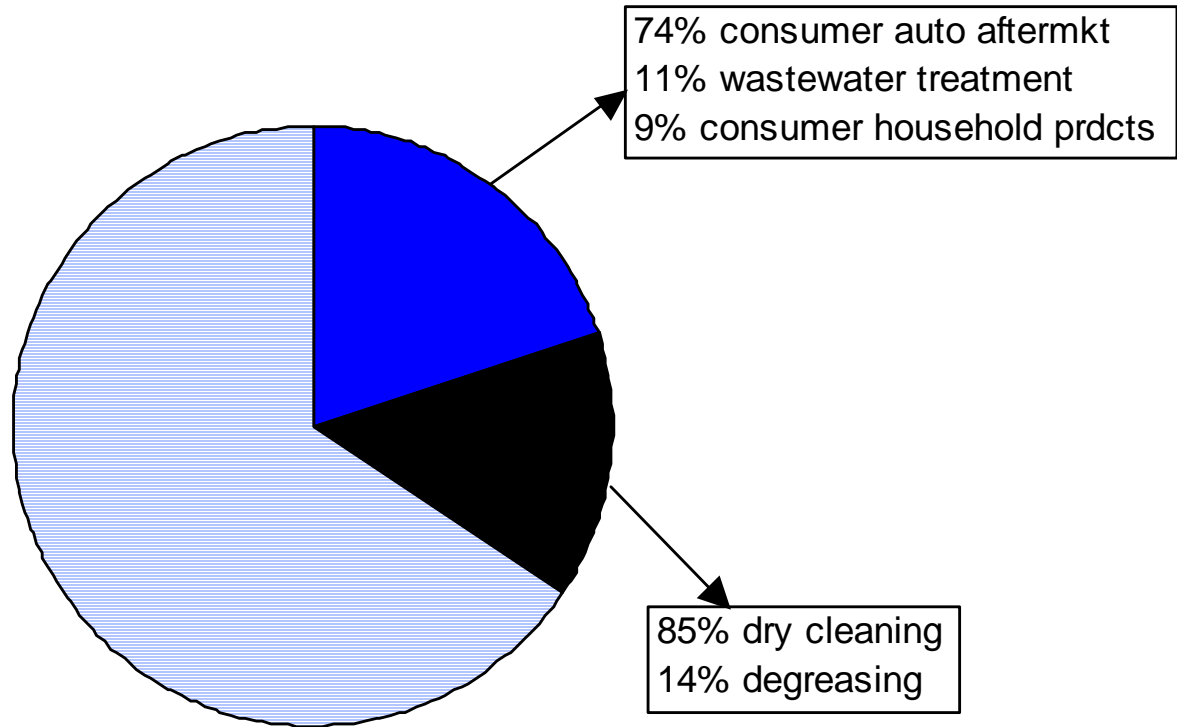
Dry Cleaners

- Factsheet to promote non-perc dry cleaners
- Recognition by SBCAP
- Partnership with trade associations
- Demonstration project
 - Subsidy to dry cleaners to purchase new non-perc equipment
 - Pre and post Survey



Perchloroethylene

MULTNOMAH COUNTY



Automotive Repair Solvents

- Factsheet to promote non-toxic automotive repair solvents
- Partnership with NATA
- Partnership with retailers

