



Oregon Air Quality Monitoring

1. PM_{2.5} Monitoring
 - a. Background
 - b. Network
 - c. Trends
2. Other Monitoring
 - a. PM₁₀
 - b. Ozone
 - c. Air Toxics
 - d. Meteorology
3. Air Quality Products



Size

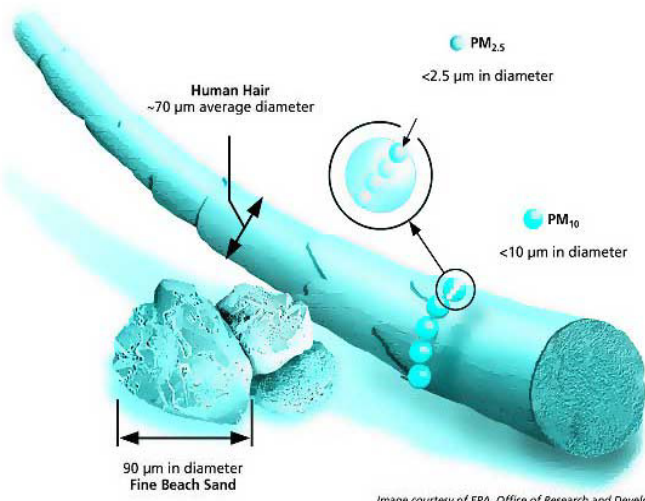


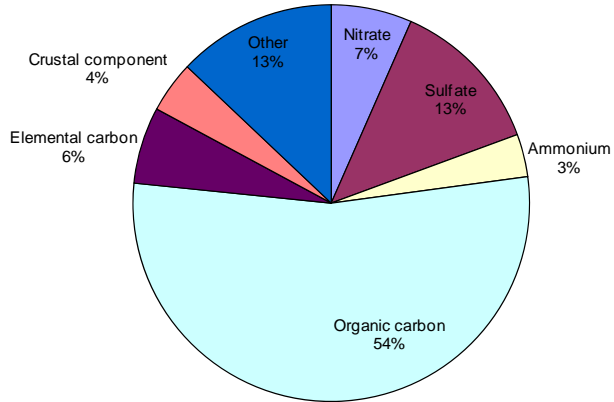
Image courtesy of EPA, Office of Research and Development

1. PM_{2.5} Monitoring - Background

Laboratory



Composition



1. PM_{2.5} Monitoring - Background

Crustal Component:
aluminum, silicon, calcium, iron, and titanium.

Laboratory

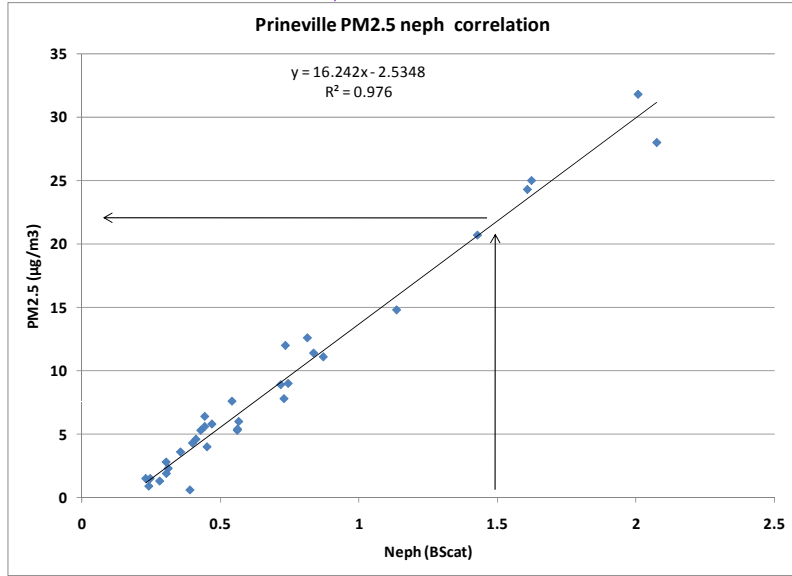


PM2.5/Nephelometer Correlation



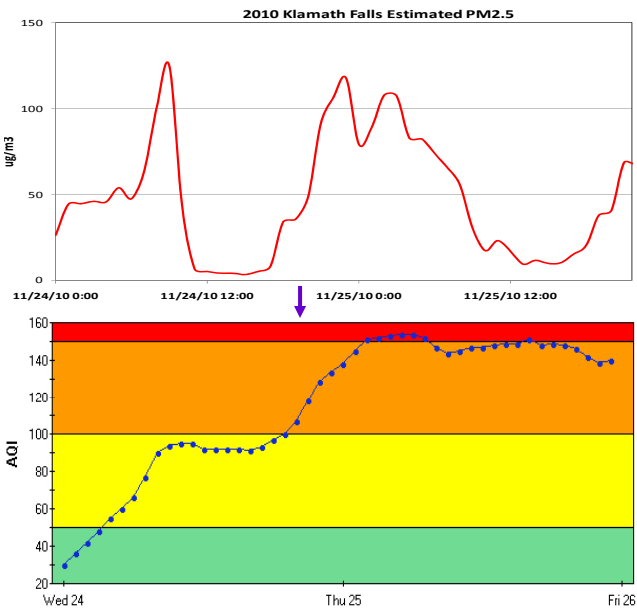
1. PM_{2.5} Monitoring - Background

Laboratory



1. PM_{2.5} Monitoring - Background

Laboratory



1. PM_{2.5} Monitoring - Background

Laboratory

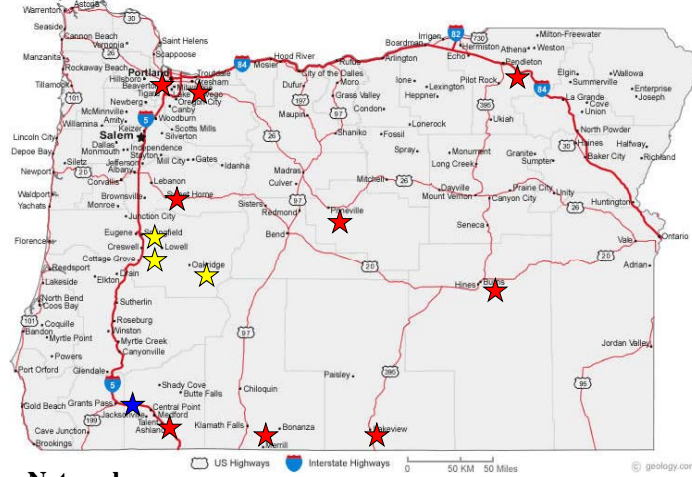


State of Oregon
Department of
Environmental
Quality

2. PM_{2.5} Monitoring

(Official Filter Samplers – FRMs) – 13 sites

Portland, Hillsboro, Sweet Home, Eugene, Cottage Grove, Oakridge, Grants Pass, Medford, Klamath Falls, Lakeview, Burns, Prineville, Pendleton.



1. PM_{2.5} Monitoring - Network

Laboratory



State of Oregon
Department of
Environmental
Quality

Nephelometer (AQI) – Continuous (Estimated) PM_{2.5}

Funding

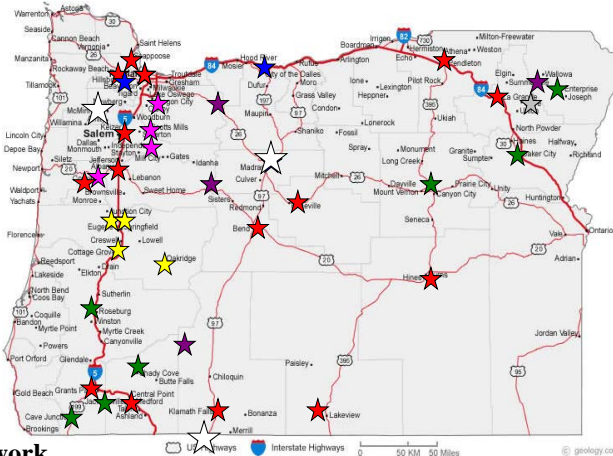
- ★ EPA
- ★ DEQ
- ★ LRAPA
- ★ USFS/BLM
- ★ OR Dept of Ag
- ★ DEQ Visibility
- ★ Union County

Current sites:

20 EPA, 7 USFS, 4 Ag, 4
Visibility, 4 LRAPA

Reductions:

- North Portland
- McMinnville
- Madras
- Klamath Falls Background



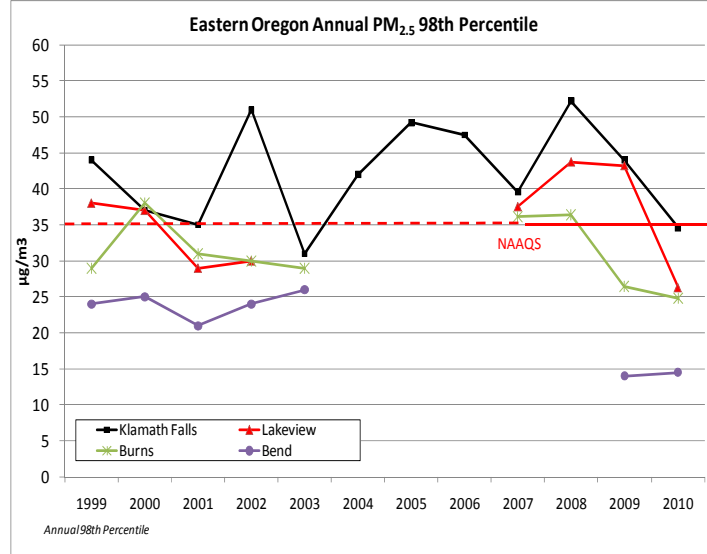
1. PM_{2.5} Monitoring - Network

Laboratory



State of Oregon
Department of
Environmental
Quality

Trends

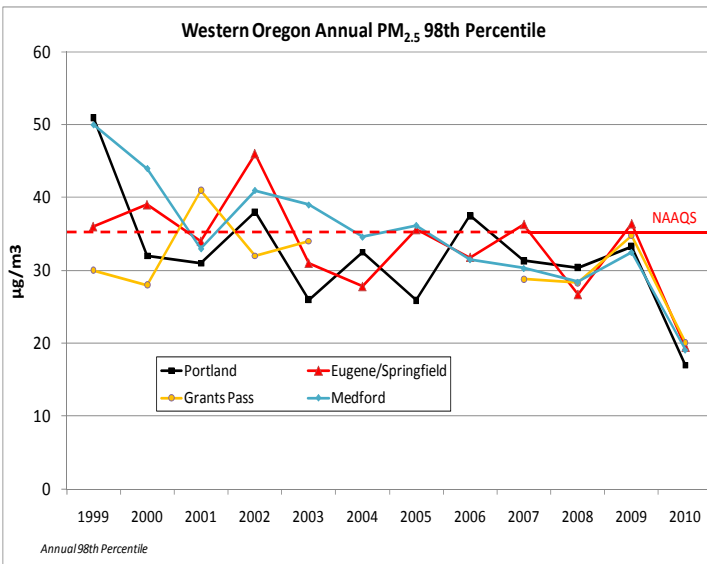


1. PM_{2.5} Monitoring - Trends

Laboratory



State of Oregon
Department of
Environmental
Quality



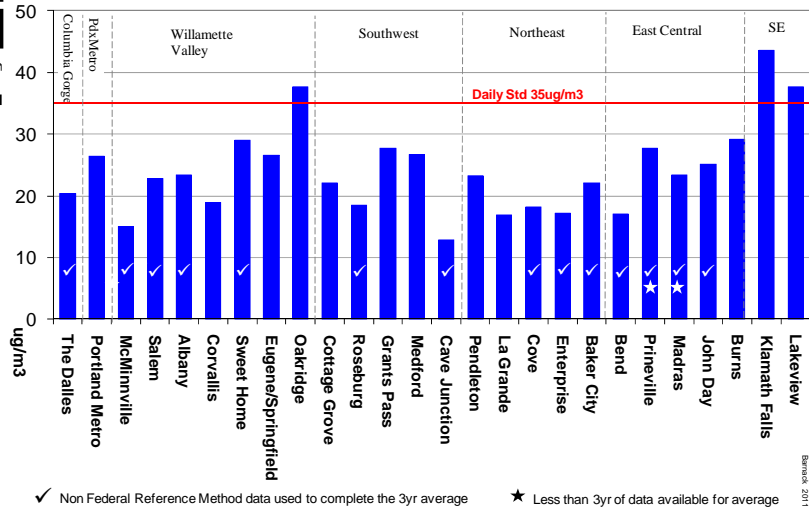
1. PM_{2.5} Monitoring - Trends

Laboratory



State of Oregon
Department of
Environmental
Quality

2008-2010 Oregon Cities Compared to the New Daily PM_{2.5} Standard



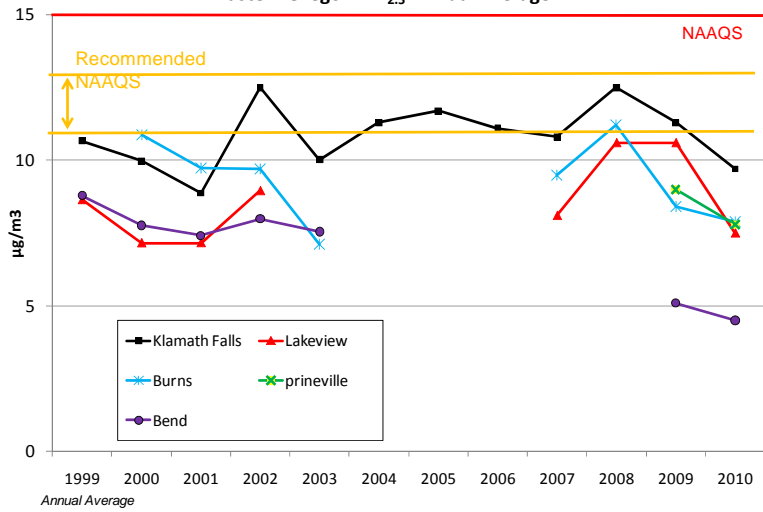
1. PM_{2.5} Monitoring - Trends

Laboratory



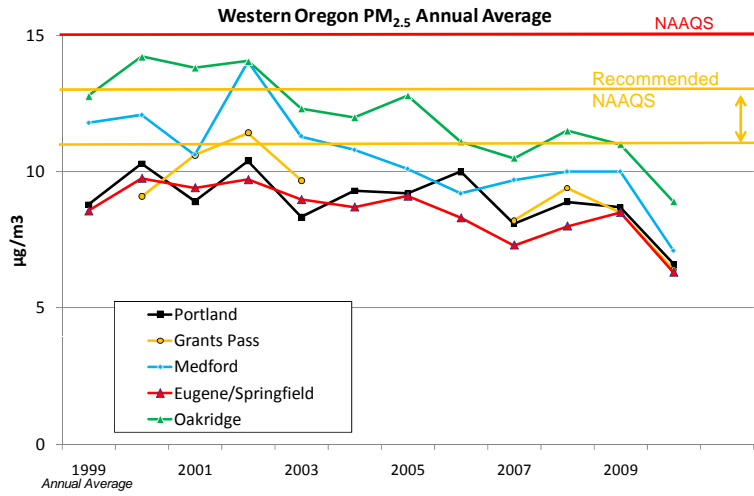
State of Oregon
Department of
Environmental
Quality

Eastern Oregon PM_{2.5} Annual Average



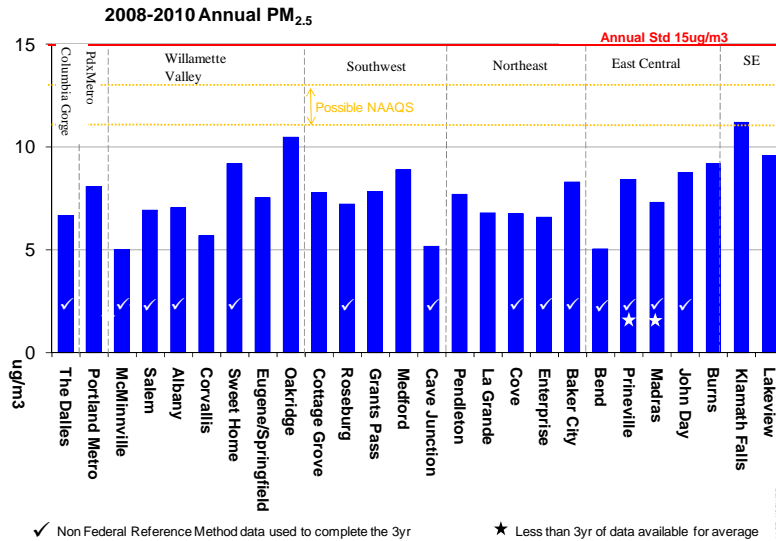
1. PM_{2.5} Monitoring - Trends

Laboratory



1. PM_{2.5} Monitoring - Trends

Laboratory



✓ Non Federal Reference Method data used to complete the 3yr

★ Less than 3yr of data available for average

Revised: 2011

1. PM_{2.5} Monitoring - Trends

Laboratory



State of Oregon
Department of
Environmental
Quality

PM₁₀

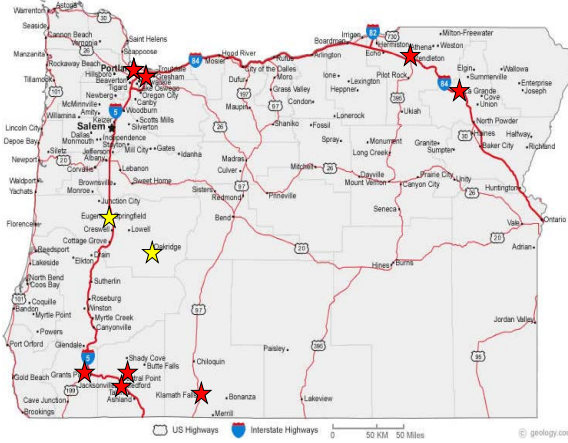
Current sites:

Portland (3), Medford,
La Grande, White City,
Eugene, Oakridge

Includes Air Toxics sites

Reductions:

- Pendleton
- Medford
- Grants Pass
- Klamath Falls



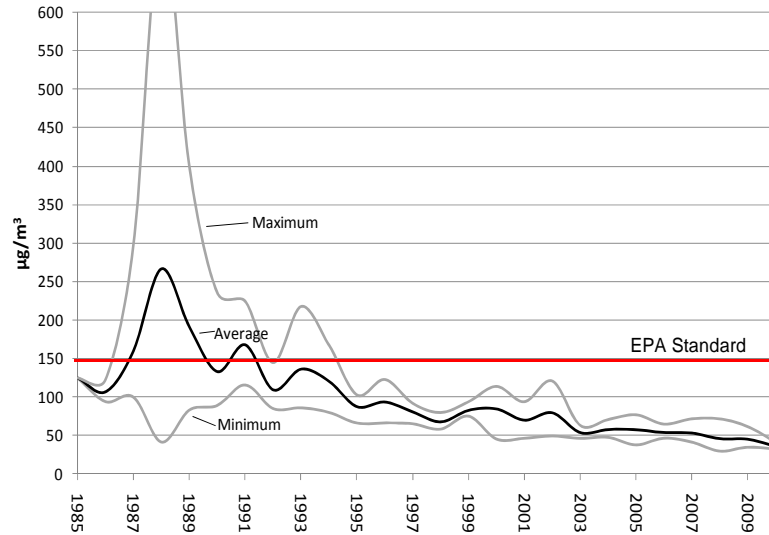
2. Other Monitoring – PM₁₀

Laboratory



State of Oregon
Department of
Environmental
Quality

PM₁₀ for Eastern Oregon Cities from 1985 to 2010
(Maximum, Average, and Minimum Concentrations)



2. Other Monitoring – PM₁₀

Laboratory



State of Oregon
Department of
Environmental
Quality

Ozone

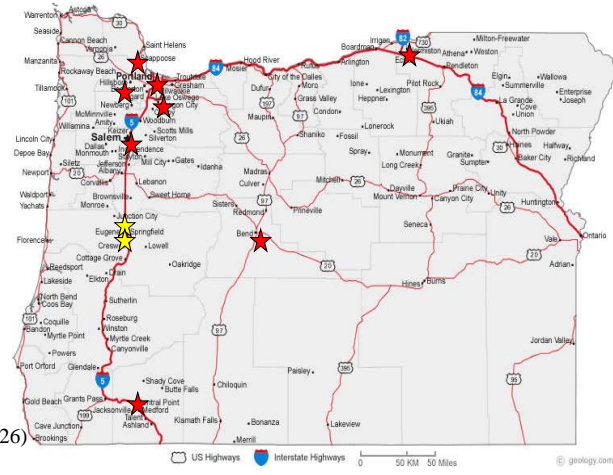
Current sites:

Portland (4), Salem, Medford,
Bend, Hermiston, Eugene (2)

Reductions: None

New requirements (3):

- Corvallis/Albany
 - Transport site
 - Secondary Standard site (W126)
- New NAAQS
August 2011 (60 – 70 ppb)

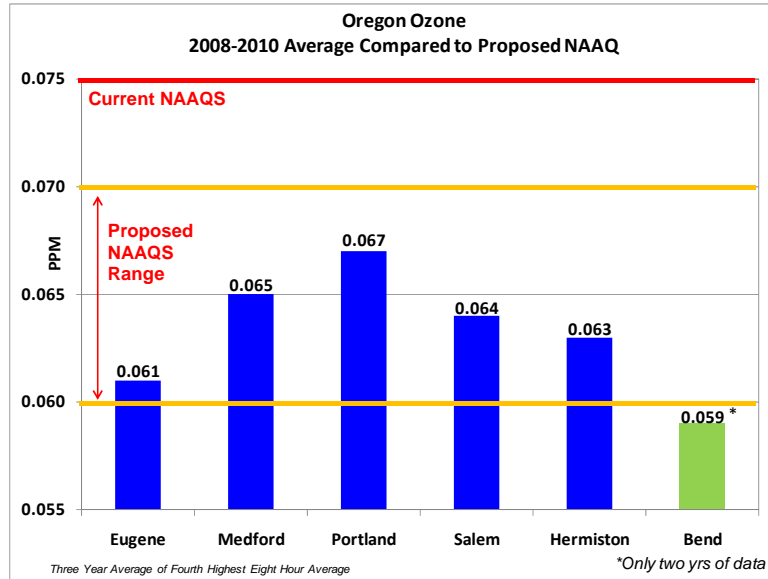


2. Other Monitoring – Ozone

Laboratory



State of Oregon
Department of
Environmental
Quality



2. Other Monitoring – Ozone

Laboratory



State of Oregon
Department of
Environmental
Quality

Air Toxics Summary

Parameters:
VOC, Aldehydes, Metals,
PolyAromatic Hydrocarbons (PAHs),
Black Carbon (Diesel Particulate)

Current and recent sites:
Portland, La Grande, Klamath Falls,
Medford, Eugene (LRAPA)

Reductions:
Klamath Falls, Eugene

Upcoming Changes:
Relocate Medford



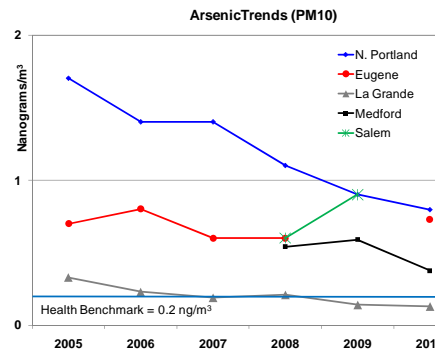
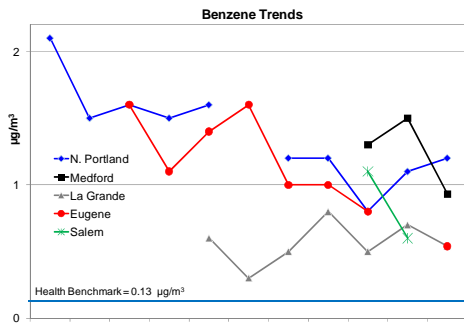
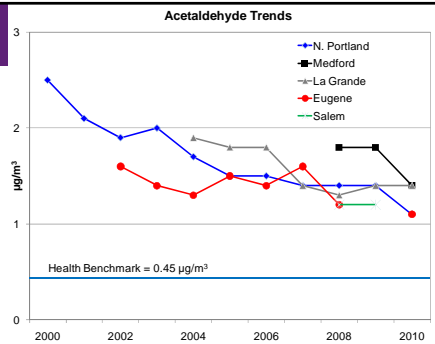
2. Other Monitoring – HAPs

Laboratory



State of Oregon
Department of
Environmental
Quality

Air Toxics Trends



2. Other Monitoring – HAPs

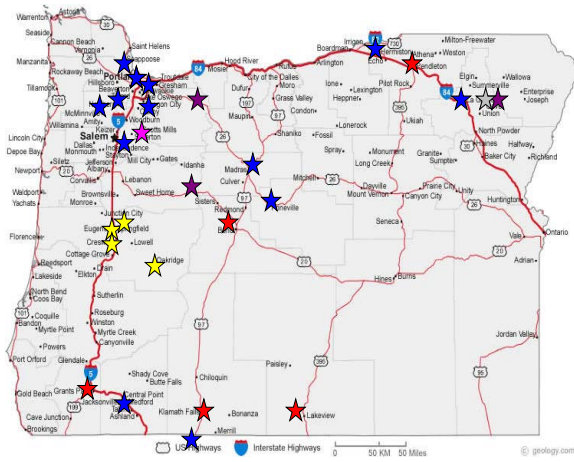
Laboratory



Meteorology

- ★ EPA Funded
- ★ DEQ
- ★ LRAPA site
- ★ Field Burning
- ★ Visibility
- ★ Union County

- Parameters:**
 WS/WD, Temp, BP,
 Solar Radiation, Relative Humidity
- Current sites:**
 Ozone, PM2.5, Field Burning,
 Visibility sites
- Reductions:**
 •McMinnville
 •Klamath Falls Background



2. Other Monitoring – Met

Laboratory



Monitoring Support for Air Programs

- Air Quality Index Health Information
 - PM2.5, Ozone
- Wildfire Air Quality Rating
 - PM2.5
- Woodstove Advisory
 - Meteorology, Neph, PM2.5
- Ozone and PM2.5 Forecasting
 - Meteorology, PM2.5, Ozone
- Field Burning
 - Meteorology, Neph, PM2.5
- Forest Health
 - Neph
- Visibility
 - Meteorology, Neph, Ozone

3. Products

Laboratory



State of Oregon
Department of
Environmental
Quality

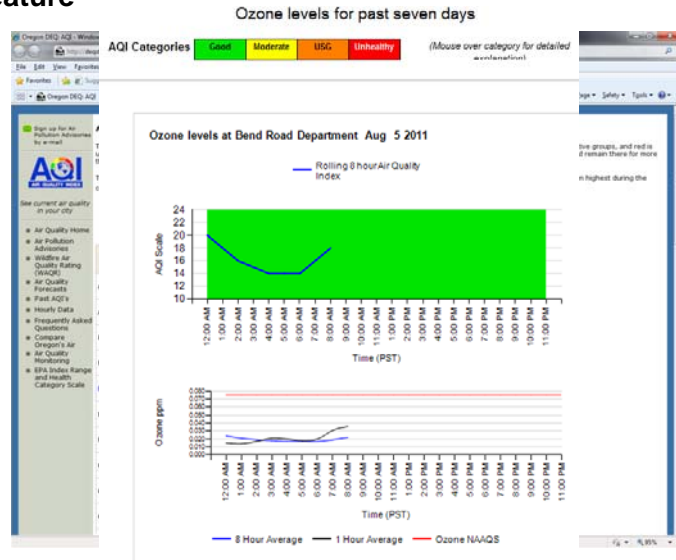
- Products:**
- Real Time:
 - AQI (DEQ and AIRNow)
 - WAQR
 - Raw Data
 - Daily
 - DEQ Woodstove Advisory Web Page
 - AIRPACT – PM2.5 and Ozone Forecast Simulation
 - NOAA – Smoke and Ozone Forecast Simulation
 - NWS – Met Forecast
 - MM-5 - Met Model
 - MODIS – Satellite Image
 - Annual
 - Annual Report - Summary
 - EPA Air Data - Summary
 - DEQ LASARWeb – All data
 - EPA Datamart – All data
 - NADP and IMPROVE

Laboratory



State of Oregon
Department of
Environmental
Quality

AQI New Feature



3. Products - Realtime



State of Oregon
Department of
Environmental
Quality

ODEQ Wildfire Air Quality Rating

Station ID	Station Name	Rating
10103	John Day Blue Mtn. Jr. H.S.	24 hr avg Good
10146	Pendleton - Mckay Creek Pk.	8 hr avg Good
10162	Enterprise Forest Service	8 hr avg Good

3. Products - Realtime



State of Oregon
Department of
Environmental
Quality

Data for Forecasting & Woodstove Advisory

Nephelometry Data

Seven days of raw nephelometer data will be available from this page. Click on the link for the day you are interested in. The data is an MS Excel spreadsheet. Click on the worksheet for the city you are interested in. We currently have data for Bend, Grants P, Klamath Falls, LaGrande, Lakeview, Medford and Pendleton.

- Monday
- Tuesday
- Wednesday
- Thursday
- Friday
- Saturday
- Sunday

PM2.5 Concentration Forecast

Predictions of hourly PM2.5 concentrations, for each hour of the day, are updated early each morning. This data is provided courtesy of Washington State University - AIRPACT. For more information about the AIRPACT data, follow these links: [Data Source](#) [Disch](#)

The data is available in text file format (Txt) or an MS Excel spreadsheet (xls). Click on the file type link for the day of interest.

Day	File Type
Monday	txt xls
Tuesday	txt xls
Wednesday	txt xls
Thursday	txt xls

3. Products - Daily



Annual Report

OREGON.gov

Google Custom Search Find

Text Size: A+ A- A

DEQ Air Quality

- Department
- About Us
- Contact Us
- Search DEQ
- Projects and Programs
- Publications and Forms
- Public Notices
- Laws and Regulations
- Permits and Licenses
- Compliance and Enforcement
- News Releases
- Databases

Working to Ensure Clean Air and Skies for All Oregonians



The mission of the Department of Environmental Quality's Air Quality Program is to preserve and enhance Oregon's air quality to support healthy, clean air for all Oregonians. The Air Quality Program protects Oregon's air through program planning development and guidance, industrial source control, major new source review, coordination of permit and plan review programs, data analysis and reporting, and regulation.

The program includes the Air Quality Division (headquarters), five Air Quality Sections in the regional divisions, and the Air Quality Monitoring Section at the Laboratory and Environmental Assessment Division.

Current Topics
Oregon Air Gets Mixed Grades

Resources
Overview of Portland Air Quality

- Advisories
- Air Pollution
- Air Toxics
- Burning
- Business Assistance
- Climate Change
- Maintenance Areas
- Vehicle Inspection
- Quick Links**
- Air Quality Annual Report
- Asbestos

3. Products - Annual



State of Oregon
Department of
Environmental
Quality

Questions?

2010 Bend Air Quality Index
Based on PM2.5 and Ozone

