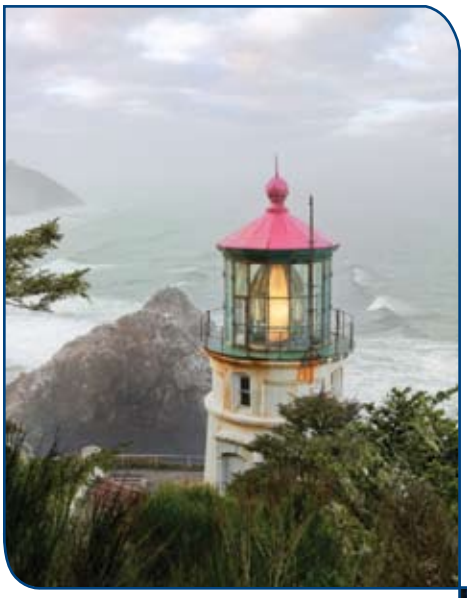
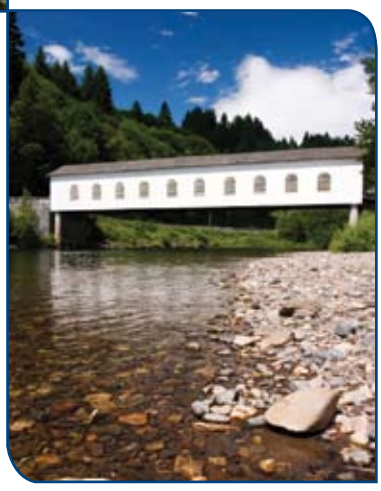
Lane Regional Air Protection Agency

2009 Annual Report





LRAPA
Lane Regional Air Protection Agency

Table of Contents

Vision

Community partners working together to ensure clean air for everyone

Mission

To protect public health, quality of life and the environment as a leader and advocate for the continuous improvement of air quality in Lane County

Goals

Air Quality

Our goal is to ensure healthful air quality for all Lane County citizens.

Involvement

Our goal is to inform and involve citizens and businesses in improving air quality.

Service

Our goal is to serve citizens and other stakeholders fairly, courteously, and in a timely manner.

Partnerships

Our goal is to work with our partners to leverage resources to make a difference in local air quality.

LRAPA
Lane Regional Air Protection Agency

Letter from the Director

The year 2009 proved to be a turning point for many issues related to air quality. Legislation and rulemaking at the federal, state, and local levels will result in cleaner air for communities in Lane County and Oregon.

At the federal level, the Environmental Protection Agency (EPA) is proposing a lower standard for ozone that will be more protective of public health. In 2008, the 8-hour primary and secondary standards were revised, with the primary standard lowered from 0.08 parts per million (ppm) to 0.075 ppm. Lisa Jackson, the new head of EPA, made the decision to reconsider the standard based on the original Clean Air Science Advisory Committee recommendations of a range between 0.060 and 0.070 ppm, and a review of over 1,700 scientific studies and public comments gathered during the 2007 rulemaking process. A new standard in the proposed range could provide health benefits between $13 billion and $100 billion. A final determination will be made in August 2010.

The 2009 session of the Oregon legislature proved to be a landmark year as two critical pieces of legislation were passed. The Heat Smart bill, sponsored by the Oregon Department of Environmental Quality (DEQ), will reduce emissions from residential wood heating devices. Heat Smart contains several key elements that will be implemented statewide to improve wintertime air quality. The bill requires the removal of uncertified woodstoves when selling a home, allows the state to set emission standards for new stoves, and prohibits the burning of garbage and illegal materials inside homes. Oregon is the first state in the country to require the removal of uncertified stoves upon sale of a home.

A bill calling for a ban on field burning was introduced in the 2009 legislative session. Sponsored by Representative Paul Holvey of Eugene, the bill narrowly passed after a lengthy debate. The legislation greatly reduces open field burning, stack burning and propane flaming. Although LRAPA has never had jurisdiction over field burning, the agency responded to complaints from citizens of Lane County, which were tallied weekly and forwarded by the Department of Agriculture to the Governor's Office.

LRAPA made steady progress this year to protect local air quality. LRAPA Title 44 governing hazardous air pollutants was amended to reduce sources of air toxics from gasoline dispensing facilities. The amendments to Title 44 include, among other rules, vapor recovery requirements for delivery trucks and a no-topping off rule for refueling facilities. Both requirements will reduce emissions of harmful volatile organic compounds (VOCs) into the local airshed.

Continuing work to characterize air toxics emissions in the Eugene/Springfield area, LRAPA received funding to place a second air toxics monitor in west Eugene to complement the historical monitoring data from the south Eugene site. The west Eugene monitoring station was established in Petersen Park with the cooperation of the City of Eugene and the Eugene Water and Electric Board. Air toxics monitoring is scheduled to begin in April, 2010.

LRAPA also renewed its efforts to provide cleaner, safer heating appliances for residents in Oakridge. Ten residents were given assistance to replace old, uncertified stoves with new, high-effiency wood stoves. In 2010, funding from the Oregon Department of Energy will help LRAPA continue the program and make further progress toward meeting clean air standards.

I expect 2010 to be a great year for air quality!

Merlyn Hough

LRAPA Organization

2009 LRAPA Board of Directors*

The LRAPA Board of Directors is a nine-member board that meets monthly to establish policy and adopt agency regulations. Board members are appointed by their respective city councils and the Lane County Board of Commissioners. Membership includes three representatives from the City of Eugene, one each from Lane County and the City of Springfield, one from either the City of Cottage Grove or City of Oakridge, and one at-large representative appointed by the board. Cities with more than one member may appoint the second or third member from the public within their jurisdictions.

Bill Carpenter, chair
5 yrs. service
Springfield City Council
Appointment

Glenn Fortune, vice-chair
5 yrs. service
At-large General Lane County

David Monk
5 yrs. service
Eugene City Council
Appointment

Drew Johnson
5 yrs. service
Eugene City Council
Appointment

Kit Kirkpatrick
2 yrs. service
Eugene City Council
Appointment

Andrea Ortiz
2 yrs. service
Eugene City Council

Bran Forge
1 yr. service
At-large General Lane County

Dave Ralston
9 yrs. service
Springfield City Council

Faye Stewart
5 yrs. service
Lane County Board of
Commissioners

* This report reflects the 2009 Board and committee members. Changes in memberships have occurred since January 2010.

LRAPA Organization

2009 LRAPA Citizens Advisory Committee*

The LRAPA Citizens Advisory Committee includes local citizens representing specific areas of interest, including agriculture, community planning, fire suppression, industry, public health, and the general public. The committee is called upon to advise the board and staff on a variety of air quality issues, rules, and policies.

Russ Ayers - 10 yrs. service
Representing Major Industry
Diana Bollenbaugh - 1 yr. service
Representing Industry
Maurie Denner - 5 yrs. service
Representing General Public
Larry Dunlap - 11 yrs. service
Representing Public Health
Paul Engelking - 12 yrs. service
Representing General Public
Chuck Gottfried - 1 yr. service
Representing Agriculture
Don Holkestad -1 yr. service
Representing General Public
Earl Koenig - 2 yrs. service — Chair
Representing General Public
Hugh Larkin II - 3 yrs. service
Representing General Public
Marilyn Lowe - 3 yrs. service
Representing General Public
Amy Peccia - 3 yrs. service
Representing Industry
Link Smith - 1 yr. service
Representing Fire Suppression
John Tamulonis - 12 yrs. service
Representing Planning
Gary Vander Meer - 7 yrs. service
Representing General Public

* This report reflects the 2009 Board and committee members. Changes in memberships have occurred since January 2010.

2009 LRAPA Budget Committee*

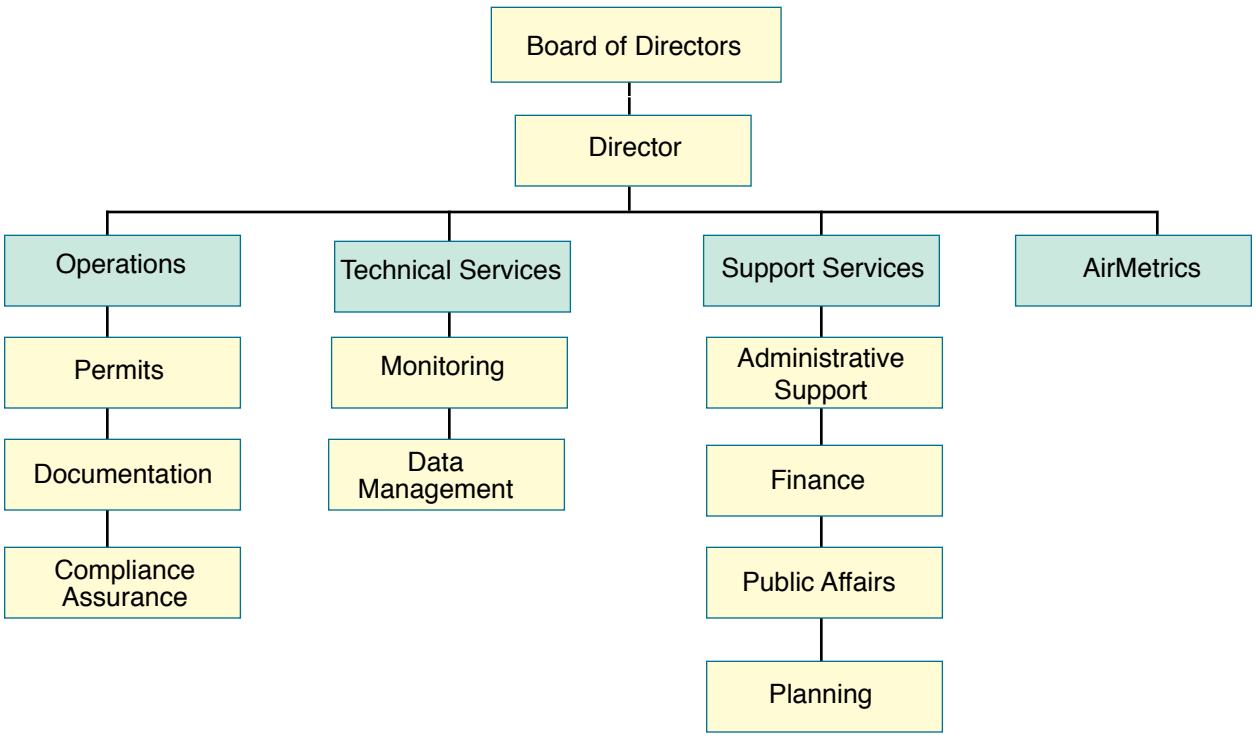
The LRAPA Budget Committee consists of the LRAPA Board of Directors plus nine board-appointed citizens. The committee meets yearly to review and approve LRAPA's budget request. The nine board-appointed citizens include:

John Woodrow II
Landa Gillette
Earl Koenig
Kevin Matthews
Eric DeFreest
Don Hampton
Bob Houston
John Ahlen
Gary Williams

LRAPA Organization

The board of directors appoints the director of the agency, who has overall authority to appoint and direct the LRAPA staff. The director makes policy recommendations to the board and is responsible for implementing board decisions.

Staff Organizational Chart



LRAPA Phone Numbers

Business Office	541-736-1056
Home Wood Heating Advisory Line	541-746-HEAT
Backyard Burning Advisory Line	541-726-3976
Florence Backyard Burning Advisory Line	541-997-1757
24-Hour Complaint Line	541-726-1930
Toll-Free Line	1-877-285-7272
Website	www.lrapa.org
E-mail	lrapa@lrapa.org

LRAPA Program Operations

The LRAPA staff consists of 20 professional and technical employees who perform permitting, enforcement, planning, clerical, financial, enterprise, and public information and outreach programs.

Operations — Permitting, Compliance and Enforcement

Permitting - establishes conditions under which regulated industrial sources may operate.
Compliance/Enforcement - assures permitted sources comply with permitting requirements; enforces agency rules and regulations through education and enforcement actions.

Technical Services — Monitoring and Data Management

Monitoring- collects ambient air quality data and provides quality assurance.
Data Management - determines whether ambient air quality standards are being met, and provides technical assistance for program priorities and planning.

Administration and Planning — Planning, Finance and Human Resources

Air Quality Planning - identifies present and potential future air quality problems and develops appropriate control strategies.
Finance - provides the agency with full financial management services.
Human Resources - manages agency personnel matters.

Public Information — Public Affairs Program

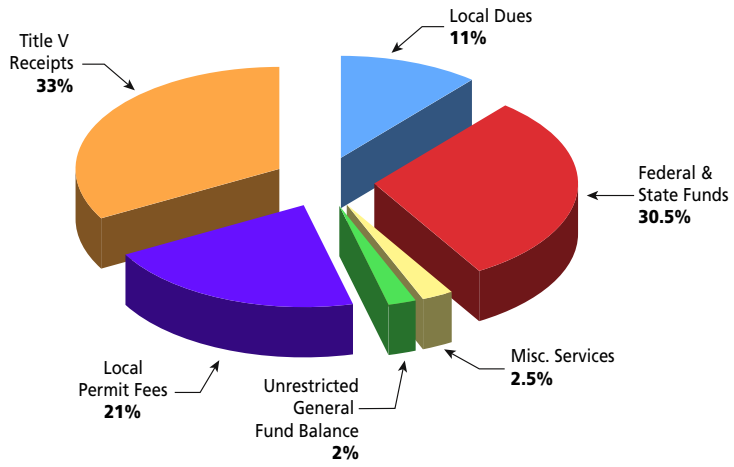
Public Information/Education - works with all sections of the agency to promote public understanding, education and awareness of the agency and local air quality issues.

Airmetrics

Manufactures and markets portable air-sampling devices and services.

Funding/Budget

Funding Resources FY 2009 — $2,408,330

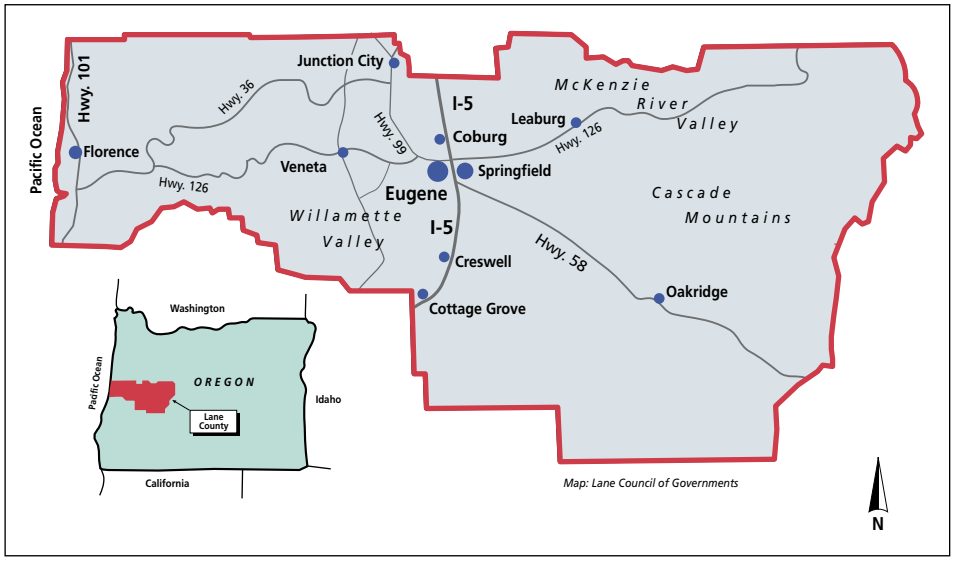


LRAPA's funding sources include: local contributions (Lane County and the cities of Eugene, Springfield, Oakridge, and Cottage Grove); state and federal grants; industrial and open burning permit fees; asbestos demolition/ renovation fees; Airmetrics sales and services; and miscellaneous contracts.

Lane County, Oregon — The Setting, Topography and Meteorology

The Setting: The Willamette Valley

Lane County is located at the southern end of the Willamette Valley and stretches from the Cascade Mountains to the Pacific Ocean. The county is approximately the same size as the state of Connecticut. The county's population is around 323,000 or about 10 percent of the state's total population. The incorporated cities of Eugene and Springfield comprise the second largest urban area in Oregon with an estimated 199,990 residents. (*U.S. Census*)



Topography and Meteorology

Lane County has many distinct geographic features and multiple airsheds. The Willamette Valley is framed to the west by the Coast Range mountains and the east by the Cascade mountains. There are distinct climate differences between the Willamette Valley, coastal areas, and the Cascades. The temperate coastal climate is contrasted by the snowy Cascades. The Willamette Valley experiences cool, wet winters and hot, dry summers.

Air quality in most of Lane County is very good, with Eugene/Springfield averaging 323 days a year in the "green" category of the air quality index. However, some of the inland areas and mountain valleys experience periods of air stagnation. When this happens during winter months, cold air often becomes trapped near the valley floor with slightly warmer air aloft, creating temperature inversion conditions. The combination of cold, stagnant air and restricted ventilation causes air pollutants to become trapped near the ground. Wintertime temperature inversions contribute to high particulate levels. Stagnant periods in the summertime contribute to increases in ozone levels, causing the local air quality to deteriorate.

Periodic episodes of stagnant air cause pollution to build up in the Willamette Valley. This photo, taken in late summer, shows a poor air quality day with a heavy brown haze over Eugene and Springfield. During summer time bad air episodes, this mix of ozone, dust, and other pollutants reduces visibility and poses a problem for public health.

National Ambient Air Quality Standards

The Environmental Protection Agency (EPA) has established health-based National Ambient Air Quality Standards (NAAQS) for six air pollutants (criteria pollutants): particulate matter (PM_{10} and $PM_{2.5}$), ozone (O_3), carbon monoxide (CO), sulfur dioxide (SO_2), nitrogen dioxide (NO_2) and lead (Pb). Three of the six pollutants are monitored in Lane County: particulate matter, ozone and carbon monoxide.

Particulate Matter (PM) - Federal Standards

There are three particulate standards: one for particles 10 microns and smaller in size, and two for fine particules measuring no larger than 2.5 microns in size.

24-hour PM_{10} Standard — The standard is met when the second highest value at each monitoring site is less than or equal to 150 micrograms per cubic meter.

Annual $PM_{2.5}$ Standard — The standard is met when the three-year annual mean at each monitoring site is less than or equal to 15 micrograms per cubic meter.

24-hour $PM_{2.5}$ Standard — The standard is met when the three-year average of the 98th percentile value at each monitoring site is less than or equal to 35 micrograms per cubic meter.

Carbon Monoxide - Federal Standard

There are two carbon monoxide standards, a one-hour and an eight-hour standard.

One-hour Standard — The standard is met when the maximum one-hour average concentration does not exceed 35 parts per million.

The Eight-hour Standard — The standard is met when the maximum eight-hour average concentration does not exceed nine parts per million.

Ozone - Federal Standard

On May 27, 2008, EPA revised the eight-hour standard for ozone. The ozone standard is attained when the consecutive three-year average of the annual fourth highest daily maximum eight-hour average concentration does not exceed 0.075 parts per million (ppm). The standard is being reviewed again and EPA is proposing a tighter standard between 0.060 and 0.070 ppm. EPA will make a final decision in late August 2010.

Federal Ambient Air Quality Standards

Pollutant	Federal Standard	Monitoring Status in Lane County
Particulate ($PM_{2.5}$)		
24-hour standard	35 µg/m³	Required
Annual standard	15 µg/m³	Required
Particulate (PM_{10})		
24-hour standard	150 µg/m³	Required
Carbon Monoxide (CO)		
8-hour average	9 ppm	Required
1-hour average	35 ppm	Required
Ozone (O_3)		
8-hour average	0.075 ppm	Required
Sulfur Dioxide (SO_2)		
24-hour average	0.14 ppm	Not required
1-hour average	0.10 ppm	Not required
Nitrogen Dioxide (NO_2)		
Annual average	0.05 ppm	Not required
Lead (Pb)	1.5 µg/m³	Not required

µg/m³: micrograms per cubic meter

ppm: parts per million

The daily $PM_{2.5}$ standard is 35 micrograms per cubic meter (µg/m³) and the three year annual mean standard is 15 micrograms per cubic meter.

NAAQS and Local Air Quality

Lane County Attainment History

In Lane County, three criteria pollutants have historically been of concern: particulate matter, ozone, and carbon monoxide. The Eugene/Springfield area is monitored for all three pollutants, while the city of Oakridge is monitored for particulate matter only.

Particulate Matter (PM)

Particulate matter is measured at three locations in Eugene, one location in Springfield, and one each in Oakridge and Cottage Grove. In Lane County, two areas, the Eugene/Springfield urban area and the City of Oakridge, have been designated "non-attainment" for PM_{10}. Eugene currently meets the standard and is in the process of regaining attainment status. Oakridge was declared a non-attainment area for $PM_{2.5}$ in December, 2008.

- The Eugene/Springfield area was designated a "non-attainment" area on January 10, 1980, for exceeding the 24-hour secondary "total suspended particulate" (TSP) standard.
- The TSP standard was changed to the PM_{10} standard (particulate matter 10 microns in size or smaller) in 1987.
- The Eugene/Springfield area was redesignated a PM_{10} "non-attainment" area on August 7, 1987.

  — Last exceeded the standard in 1987.
- Oakridge was proposed a PM_{10} "non-attainment" area in September 1992, and designated on January 20, 1994.

  — Last exceeded the standard in 1993.
- On September 16, 1997, EPA established daily and annual $PM_{2.5}$ standards that were immediately challenged by industry.
- In March 1998, $PM_{2.5}$ monitoring began in Eugene/Springfield.
- In November 1998, $PM_{2.5}$ monitoring began in Oakridge.
  - On February 27, 2000, the U.S. Supreme Court unanimously upheld the new standards.
- On December 17, 2006, EPA formally adopted new standards for $PM_{2.5}$. The 2006 standards tighten the 24-hour fine particle standard from 65 micrograms per cubic meter (µg/m3) to 35 µg/m3, and retain the current annual fine particle standard at 15 µg/m3. The EPA also revoked the three year annual standard for PM_{10}, but retained the 24-hour standard of 150 µg/m3.

  — On October 8, 2009, the Environmental Protection Agency (EPA) issued final area non-attainment designations for the 24-hour national air quality standards for fine particulate matter ($PM_{2.5}$). An area containing Oakridge and Westfir was declared "non-attainment."

  — Oakridge last exceeded the standard in 2009.

  — Eugene/Springfield currently meet the $PM_{2.5}$ standards.

Ozone (O3)

Ozone is measured at one site in Eugene and one in Saginaw. Lane County is in attainment with the federal ozone standards.

- In 1970, EPA established a one-hour ozone standard.
- In May 1974, the Eugene/Springfield area began monitoring ozone and has continued to measure ozone, although the area has remained in attainment.
- In 1997, the standard was changed to an eight-hour standard, but this was challenged by industry.
- In 2000, the U.S. Supreme Court unanimously upheld the eight-hour standard.
- In 2007, the U.S. Environmental Protection Agency reviewed the primary and secondary eight-hour standards for ground level ozone. On May 27, 2008, EPA revised the both the primary and secondary eight-hour standards for ozone. The ozone standard is attained when the consecutive three-year average of the annual fourth highest daily maximum eight-hour average concentration does not exceed 0.075 parts per million.

NAAQS and Local Air Quality

Carbon Monoxide (CO)

The Eugene/Springfield area was designated a "non-attainment" area for CO in the late 1970s, but was later redesignated an attainment area.

- In 1970, EPA established an eight-hour CO standard.
- In 1971, LRAPA began monitoring CO in downtown Eugene.
- On March 3, 1978, the Eugene/Springfield area was designated a "non-attainment" area for CO.

  — Last exceeded the standard in 1986.
- On February 4, 1994, the Eugene/Springfield area was redesignated an "attainment" area.

Criteria Pollutants

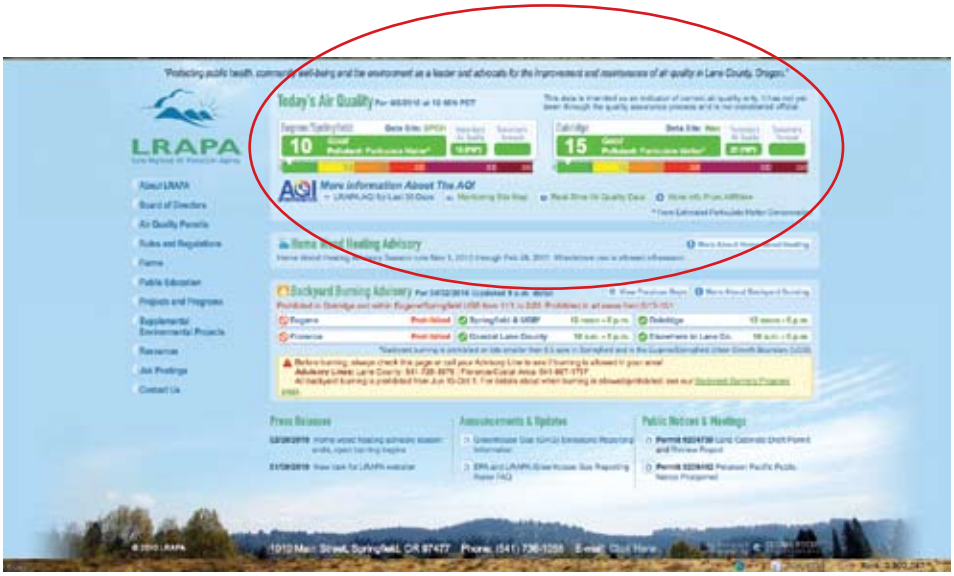
Pollutant	Description	Sources	Health Effects	Environmental Effects
Particulate Matter PM	PM_{10} — Respirable particles less than 10 microns in size $PM_{2.5}$ — Respirable particles less than 2.5 microns in size	Wood burning; industry; fugitive dust; construction activities; street sand application; combustion sources; transportation; open burning; NOx, SO_2, VOC gases	Aggravates ailments such as bronchitis and emphysema; especially bad for those with chronic heart and lung disease, as well as the very young and old, and pregnant women	Causes reduced visibility and haze
Carbon Monoxide CO	An odorless, colorless gas which is emitted primarily from any form of incomplete combustion	Gasoline and diesel-powered mobile sources, such as autos, trucks, buses and locomotives; wood burning; open burning; Industrial combustion sources	Deprives the body of oxygen by reducing the blood's capacity to carry it; harmful to unborn children; causes headaches, dizziness, nausea; high doses may cause death	(None)
Ozone O_3	A gas associated with smog; formed when nitrogen oxides (NOx) and volatile organic compounds (VOC) react with one another in the presence of sunlight and warm temperatures	VOCs and NOx from gasoline-powered mobile sources; industry; power plants; gasoline transfer and storage; paints and solvents; consumer products	Irritates eyes, nose, throat and respiratory system; especially bad for those with chronic heart and lung disease, as well as the very young and old, and pregnant women	Can cause damage to plants and trees; smog can cause reduced visibility; attacks rubber products
Nitrogen Dioxide NO_2	A gas produced as a by-product of high burning temperatures	Combustion processes — fossil fuel power, motor vehicles, industry; home heating; fertilizer manufacturing	Harmful to lungs, irritates bronchial and respiratory systems; increases adverse symptoms in asthmatic patients	Contributes to acid fog and rain, which can damage plant and aquatic life; can cause reduced visibility; precursor to smog
Sulfur Dioxide SO_2	A pungent, colorless gas that combines with water vapor to become sulfurous acid (H_2SO_3), which, when combined with oxygen, produces sulfuric acid (H_2SO_4), a very corrosive and irritating chemical	Fossil fuel power plants; nonferrous smelters; Kraft pulp production	Irritates respiratory system; Increases the risk of adverse symptoms in asthmatic patients	Contributes to acid fog and rain, which can damage plant and aquatic life; dissolves stone and corrodes iron and steel; can contribute to reduced visibility
Lead Pb	A widely used metal, which may accumulate in the body	Leaded gasoline; battery manufacturing; battery recycling; smelting; paint	Causes intestinal distress, anemia and damage to the central nervous system, kidneys and brain; children more adversely affected than adults	Harmful to wildlife

Air Quality Index

The United States Environmental Protection Agency (EPA) has developed the **Air Quality Index (AQI)** to provide the public with simple information about local air quality. Using data from local monitoring stations, the AQI provides a daily report about air quality and the possible health impacts on days with bad air quality.

Each AQI category is assigned a specific color and a brief explanation to make it easier for the public to understand quickly whether air pollution is reaching unhealthy levels in their community.

The LRAPA website, **www.lrapa.org**, displays the current AQI information for Eugene/Springfield and Oakridge on its home page. The AQI is updated on an hourly basis to provide current information to the public. More detailed technical information from all LRAPA monitoring sites can be accessed by clicking on the home page link to "real-time air quality data."



Good

Air quality is considered satisfactory and air pollution poses little or no risk.

Moderate

Air quality is acceptable, however, at these levels there may be a moderate health risk for a very small number of people.

Unhealthy for Sensitive Groups

Certain groups of people who are particularly sensitive to the harmful effects of certain pollutants are likely to be affected at this level.

Unhealthy

The general public may begin to experience adverse health effects. Members of sensitive groups may experience more serious health effects.

Air Quality Index Summary

Eugene/Springfield (number of days)

Year	Good	Moderate	Unhealthy (Sensitive)	Unhealthy
2009	321	35	8	1
2008	325	40	1	0
2007	321	40	4	0
2006	339	25	1	0
2005	294	69	2	0

Totals using CO, $PM_{2.5}$ and O_3 data.

Air Quality Index Summary

Oakridge (number of days)

Year	Good	Moderate	Unhealthy (Sensitive)	Unhealthy
2009	282	59	20	4
2008	272	81	13	0
2007	295	60	10	0
2006	289	70	6	0
2005	268	76	20	1

Totals using CO, $PM_{2.5}$ and O_3 data.

Ozone Data

Yearly Eight-Hour Ozone Levels — 1999 - 2009 (ppm)

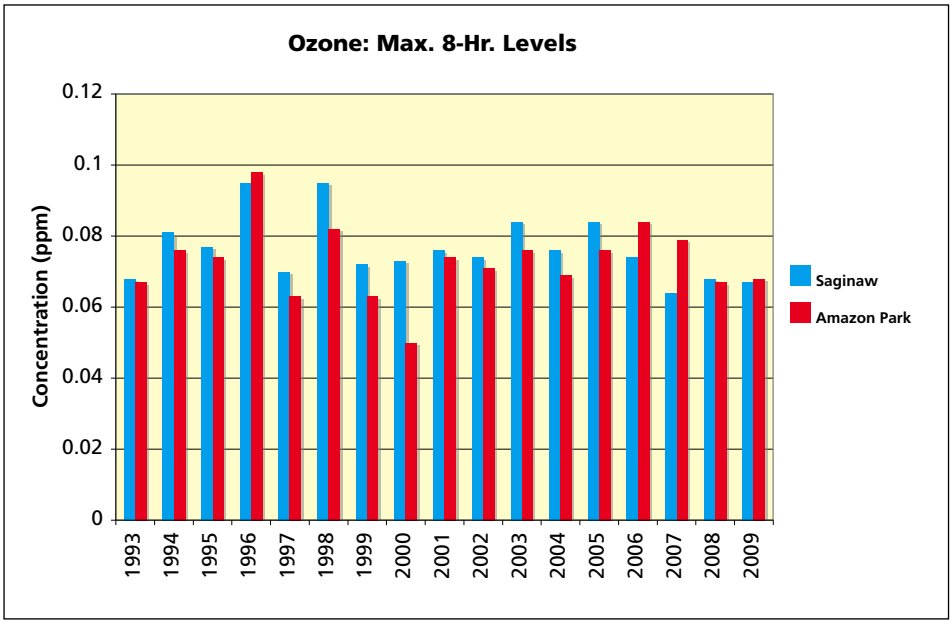
Site #	Site Name	Notes	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
2000036	Delight Valley School — Saginaw	a	.072	.073	.076	.074	.084	.076	.084	.074	.064	.068	.067
		b	.069	.065	.067	.065	.079	.068	.071	.070	.060	.059	.065
		c	0	0	0	0	0	0	0	0	0	0	0
2018060	Amazon Park	a	.063	.050	.074	.071	.076	.069	.076	.084	.079	.067	.068
		b	.057	.047	.062	.067	.071	.064	.064	.076	.058	.059	.063
		c	0	0	0	0	0	0	0	0	0	0	0

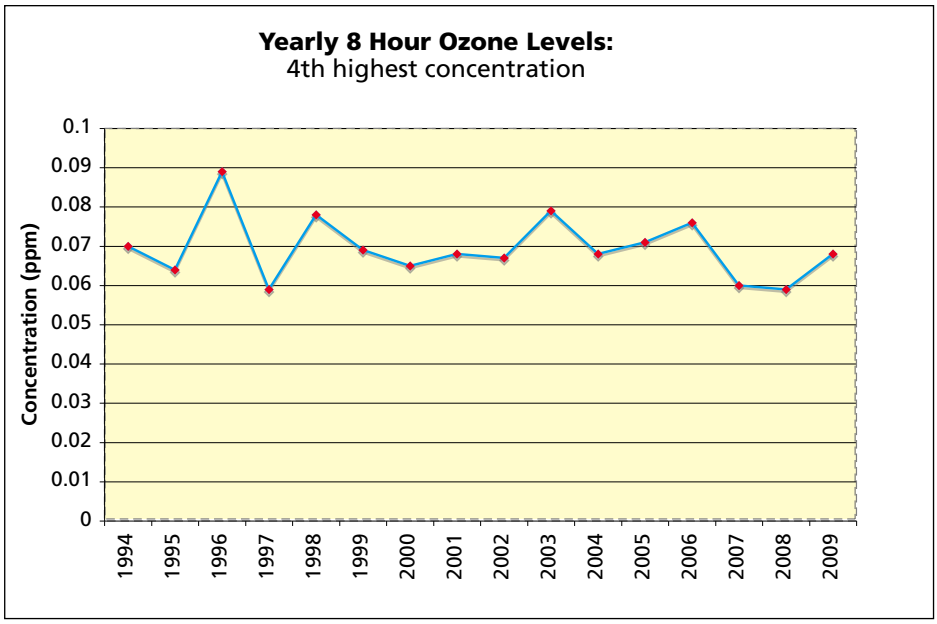
Standard:

Fourth highest 8-hour average: 0.075 parts per million

Notes:

a Highest 8-hour concentration
b 4th highest 8-hour concentration
c Number of exceedances





Particulate Matter Data - PM_{10}

Yearly PM_{10} Levels — 1999 - 2009 (µg/m³)

Site #	Site Name	Notes	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
2018056	Lane Community College (dwntwn)	a	19	19	19	17	15	15	15	14	14	13	13
		b	47	51	53	46	32	36	42	44	69	41	41
		c	45	50	35	45	30	35	40	38	39	38	37
		d	0	0	0	0	0	0	0	0	0	0	0
2018058	Key Bank— Hwy 99N	a	20	21	21	21	19	18	18	20	17	18	17
		b	79	78	70	71	48	64	50	69	83	56	85
		c	67	54	65	67	47	44	47	57	76	52	58
		d	0	0	0	0	0	0	0	0	0	0	0
2018060	Amazon Park	a	18	18	18	---	---	---	---	---	---	---	---
		b	60	58	62	---	---	---	---	---	---	---	---
		c	46	55	35	---	---	---	---	---	---	---	---
		d	0	0	0	---	---	---	---	---	---	---	---
2030003	Willamette Activity Ctr.— Oakridge	a	20	23	24	25	21	18	17	17	15	17	15
		b	99	89	108	94	76	80	83	56	63	52	48
		c	73	73	80	83	63	53	76	50	63	48	46
		d	0	0	0	0	0	0	0	0	0	0	0
2033060	Springfield City Hall	a	16	20	19	17	15	---	---	---	---	---	---
		b	57	56	45	55	40	---	---	---	---	---	---
		c	56	46	38	51	36	---	---	---	---	---	---
		d	0	0	0	0	0	---	---	---	---	---	---
2009002	Harrison Elem. Sch. — Cottage Grove	a	19	18	17	19	16	14	14	15	---	---	---
		b	49	38	44	57	44	38	38	42	---	---	---
		c	41	35	37	54	41	32	36	41	---	---	---
		d	0	0	0	0	0	0	0	0	---	---	---
2018063	Santa Clara	a	---	---	---	---	---	---	---	---	---	---	---
		b	---	---	---	---	---	---	---	---	---	---	---
		c	---	---	---	---	---	---	---	---	---	---	---
		d	---	---	---	---	---	---	---	---	---	---	---
2000037	North Coburg Road	a	---	---	---	---	---	---	15	16	---	---	---
		b	---	---	---	---	---	---	60	62	---	---	---
		c	---	---	---	---	---	---	57	54	---	---	---
		d	---	---	---	---	---	---	0	0	---	---	---

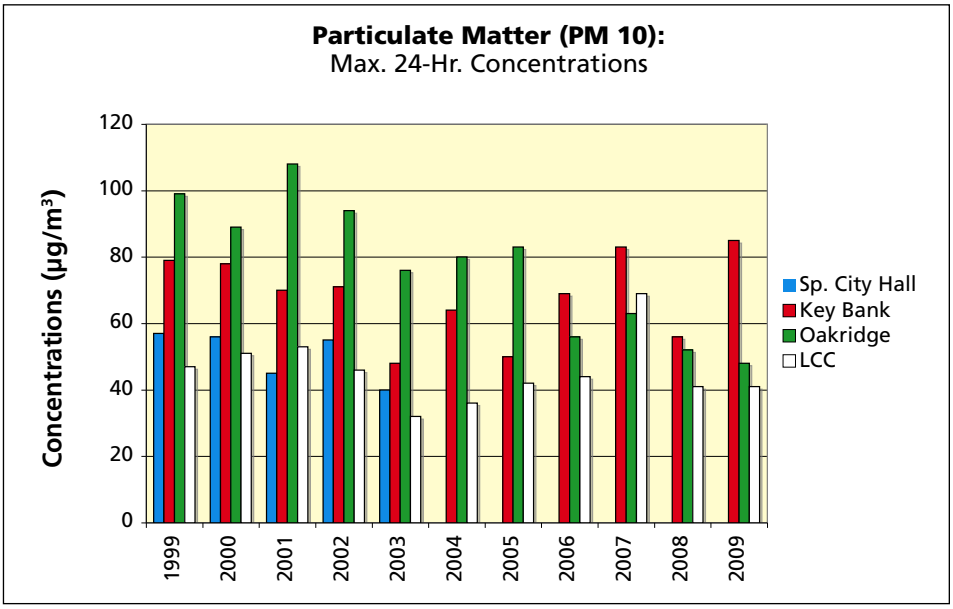
Standards:

24-hour average — 150 micrograms/cubic meter

Annual arithmetic mean — 50 micrograms/cubic meter

Notes:

- a Annual arithmetic mean
- b Highest 24-hour concentration
- c 2nd highest 24-hour concentration
- d Number of days over 24-hour standard
- --- No data collected at site during year



Particulate Matter Data - $PM_{2.5}$

Yearly $PM_{2.5}$ Levels (µg/m³)— 2003 - 2009

Site #	Site Name	Notes	2003	2004	2005	2006	2007	2008	2009
2033061	Springfield High School	a	7.8	---	---	---	---	---	---
		b	27.5	---	---	---	---	---	---
		c	23.2	---	---	---	---	---	---
		d	0	---	---	---	---	---	---
2018060	Amazon Park	a	8.9	8.7	9.1	8.4	7.3	7.8	8.5
		b	39.5	37.9	39.6	43.3	43.0	40.0	59.9
		c	30.7	27.8	35.6	31.8	36.3	28.7	35.9
		d	0	0	0	0	3	1	8
2030003	Willamette Activity Ctr. - Oakridge	a	12.3	12.0	12.8	11.1	10.5	11.5	11.8
		b	69.0	69.3	73.0	47.0	52.5	43.5	44.1
		c	53.3	46.1	58.4	38.6	42.7	42.2	41.2
		d	1	1	1	0	7	7	7
2000036	Delight Valley School - Saginaw	a	6.2	6.0	6.8	5.5	---	---	---
		b	17.0	13.8	24.7	16.6	---	---	---
		c	15.9	13.1	17.9	16.6	---	---	---
		d	0	0	0	0	---	---	---
2033060	Springfield City Hall	a	---	7.6	8	7.4	6.8	6.9	6.5
		b	---	21.0	32.1	30.2	38.6	32.3	21.9
		c	---	20.8	24.5	27.8	18.4	23.5	18.3
		d	---	0	0	0	1	0	0
2018058	Key Bank	a	---	---	---	---	8.3	8.3	8.2
		b	---	---	---	---	53.5	32.4	47.9
		c	---	---	---	---	33.9	25.3	36.4
		d	---	---	---	---	2	0	3
2009002	Harrison Elementary	a	---	---	---	---	9.25	---	---
		b	---	---	---	---	41.5	---	---
		c	---	---	---	---	38.8	---	---
		d	---	---	---	---	3	---	---
2009003	Cottage Grove City Shops	a	---	---	---	---	---	8.1	8.5
		b	---	---	---	---	---	31.8	33.6
		c	---	---	---	---	---	21.1	30.2
		d	---	---	---	---	---	0	0

Standards:

Annual arithmetic mean: 15 micrograms/cubic meter

24-hour average: 35 micrograms/cubic meter of the 98th percentile of measured concentrations*

Notes:

a Annual arithmetic mean

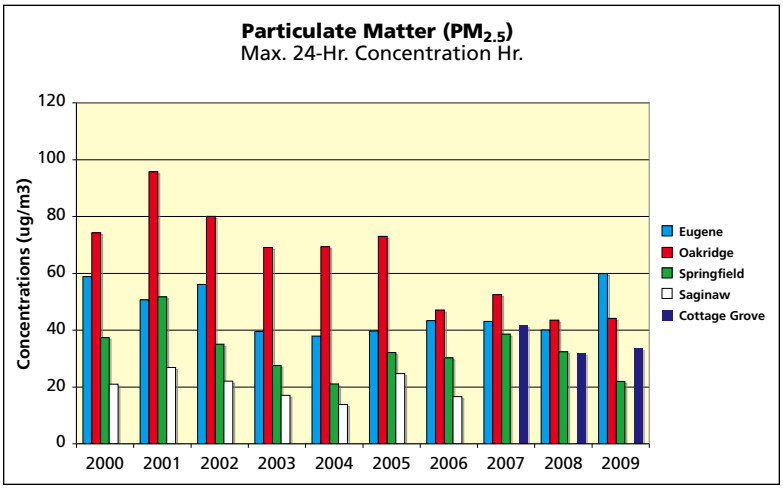
b Highest 24-hour concentration

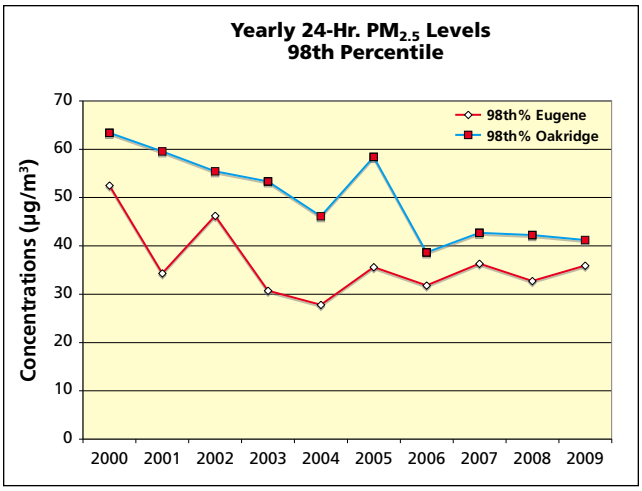
c 98th percentile concentration

d Number of days over 24-hour standard

--- No data collected at site during year

*Changed to 35 micrograms/cubic meter on December 17, 2006





Carbon Monoxide Data

Standard:

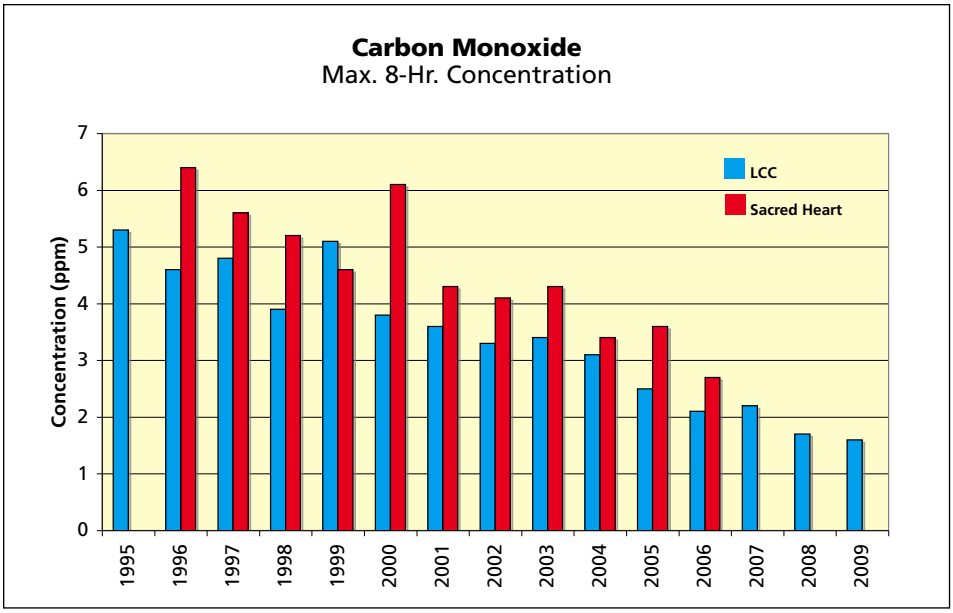
8-hour average — 9 parts per million

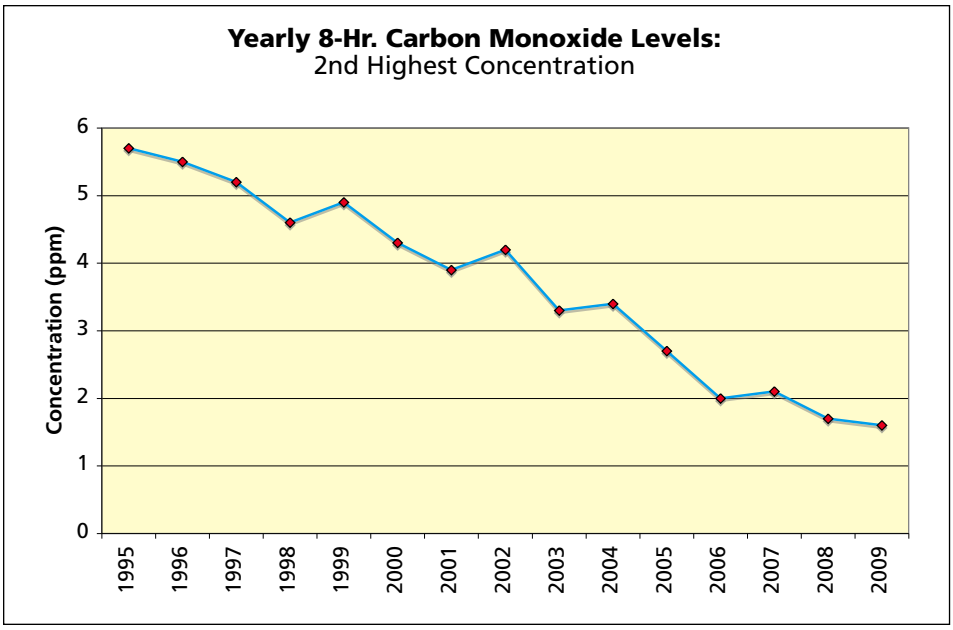
Notes:

a Highest 8-hour concentration
b 2nd highest 8-hour concentration
c Number of exceedances
--- No data collected at site during year

Yearly Carbon Monoxide Levels — 1999 - 2009 (ppm)

Site #	Site Name	Notes	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
2018056	Lane Comm. College (downtown)	a	5.1	3.8	3.6	3.3	3.4	3.1	2.5	2.1	2.2	1.7	1.6
		b	3.9	3.5	3.6	2.9	2.8	2.6	2.3	2.0	2.1	1.7	1.6
		c	0	0	0	0	0	0	0	0	0	0	0
2018062	Sacred Heart Medical Center	a	6.1	4.3	4.1	4.3	3.4	3.6	2.7	---	---	---	---
		b	4.9	4.3	3.9	4.2	3.3	3.4	2.7	---	---	---	---
		c	0	0	0	0	0	0	0	---	---	---	---





Air Toxics

Air toxics are generally defined as air pollutants known or suspected to cause serious health problems, including cancer, birth defects, lung damage, and nerve damage. The U.S. Environmental Protection Agency regulates 188 air toxics, with 33 considered to be of concern nationwide. LRAPA has monitored air toxics at its Amazon park site since 2001. A second site will begin operation in west Eugene in 2010. A complete summary of Oregon air toxics may be found at: www.deq.state.or.us/AQ/forms/2008AQreport.pdf.

Monitoring results in Lane County show five air toxics have concentrations that have averaged above health-based Oregon benchmarks. Generally, air toxics can be grouped by source in Lane County and attributed to everyday practices and processes commonplace to living in a metropolitan area.

Background levels of air toxics

Toxics with very long life-times (30 to 100 years or more) may remain in the environment for years after they have been used. Because of this, some chemicals used in the past still remain in the air at measurable levels and contribute to the toxics in our air. For example, methylene chloride, used as an aerosol propellent and a paint stripper and degreaser, persists in the environment long after its use.

Some air toxics, such as inorganic arsenic, are naturally occurring. Volcanic minerals and ores containing inorganic arsenic are present in soils in parts of Lane County.

Industry

While industries in Lane County emit toxics into the air, many have taken steps to reduce emissions that contribute to the problem. They have accomplished this by: switching to cleaner burning fuels; changing to less toxic or toxic-free solvents, paints and finishes; and switching operational processes that emit fewer toxics.

Motor vehicles/Driving

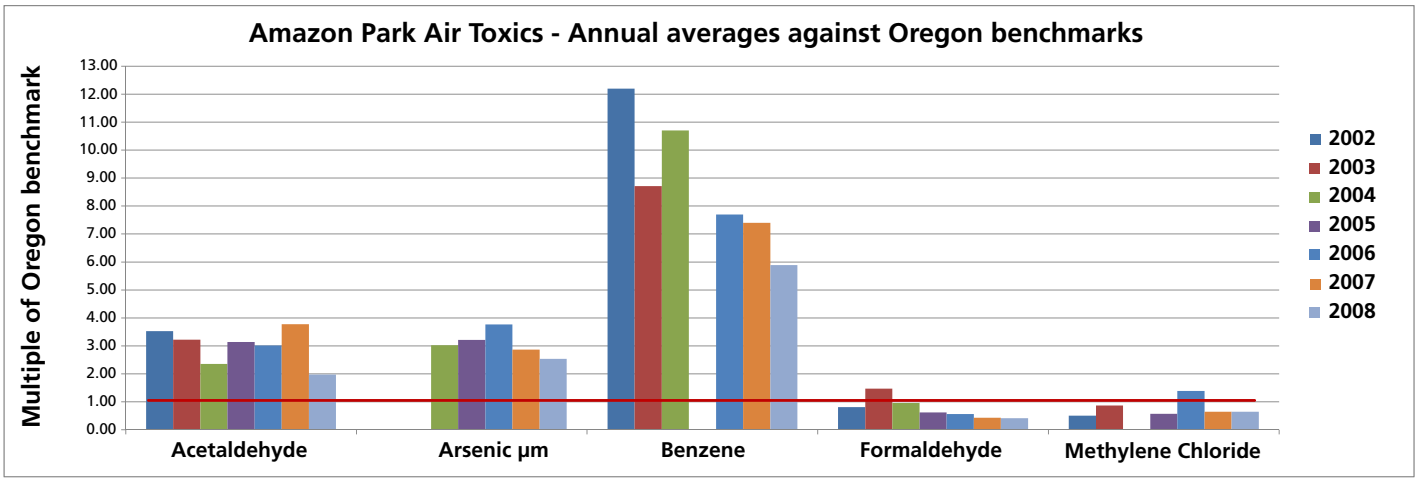
Vehicle exhaust (combustion of gasoline) and refueling are major sources of air toxics in Lane County just as they are in any metropolitan area. Acetaldehyde, formaldehyde, and benzene are all by-products of fossil fuel combustion and associated with motor vehicle operation.

Woodburning

Whether the result of home heating, backyard burning, or forest slash burning, woodburning emits toxic emissions into the air and is a large contributor to air toxics. Incomplete wood combustion is a major source of acetaldehyde in Lane County.

	Oregon	Amazon Park Averages								Data normalized to Oregon benchmark							
Pollutant	Benchmark	2002	2003	2004	2005	2006	2007	2008	Average	2002	2003	2004	2005	2006	2007	2008	Average
Acetaldehyde	0.45	1.59	1.45	1.06	1.41	1.36	1.70	0.89	1.35	3.52	3.22	2.36	3.14	3.02	3.77	1.98	3.00
Arsenic 10µm	0.0002	-	-	0.0006	0.0006	0.0008	0.0006	0.0005	0.0006	-	-	3.02	3.22	3.77	2.87	2.54	3.08
Benzene	0.13	1.59	1.13	1.39	-	1.00	0.96	0.77	1.14	12.20	8.72	10.70	-	7.70	7.40	5.89	8.77
Formaldehyde	3	2.43	4.40	2.88	1.86	1.68	1.29	1.23	2.25	0.81	1.47	0.96	0.62	0.56	0.43	0.41	0.75
Methylene Chloride	2.1	1.05	1.82	-	1.19	2.92	1.35	1.35	1.61	0.50	0.86	-	0.57	1.39	0.64	0.64	0.77

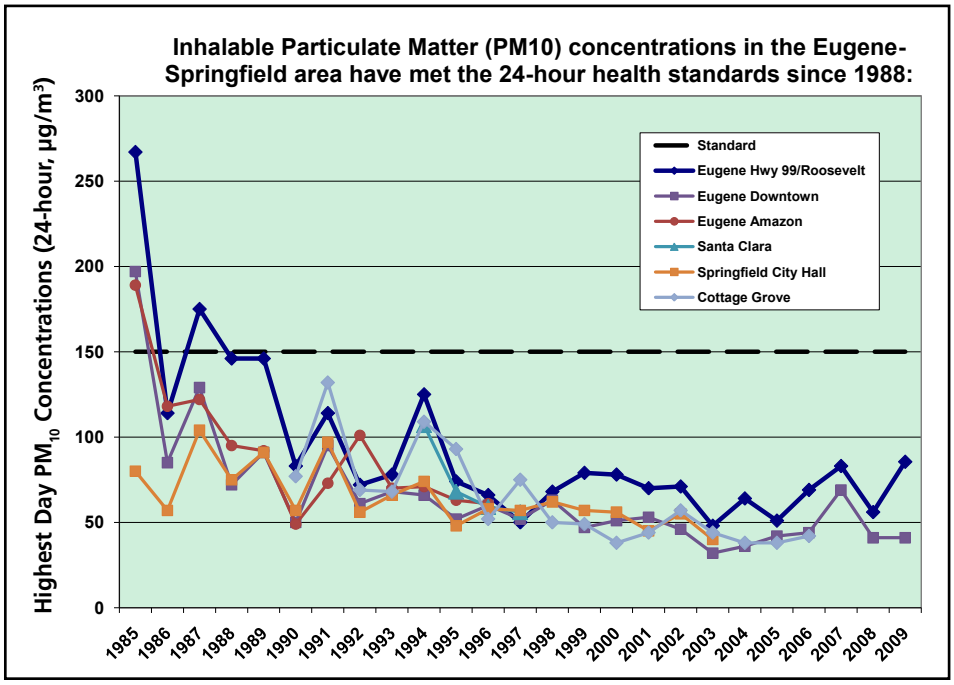
all values in µg/m³

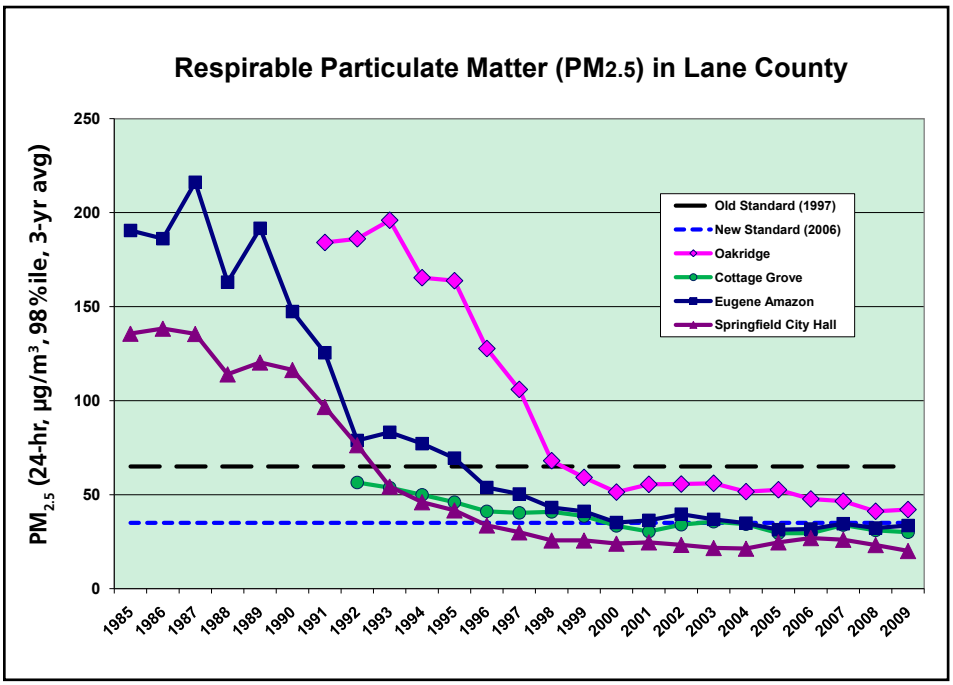


Lane County Trends

LRAPA's air quality monitoring network consists of 11 monitoring sites that measure a total of 41 parameters. The agency collected about 242,448 hours of pollutant-related data in 2009. At an estimated operational cost of $318,480 per year, LRAPA's network provides Lane County with comprehensive data on local air quality. Without the local program, the Lane County network could have as few as four sites, with a total of four to six sets of equipment, and a collection basis of fewer than 40,000 hours of pollutant-related data annually.

LRAPA's network includes five locations in Eugene, and one each in Springfield, Oakridge, Cottage Grove, and Saginaw.



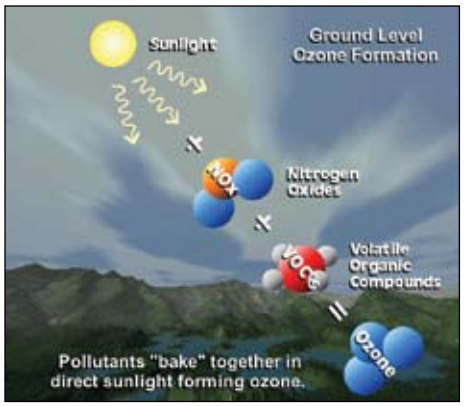


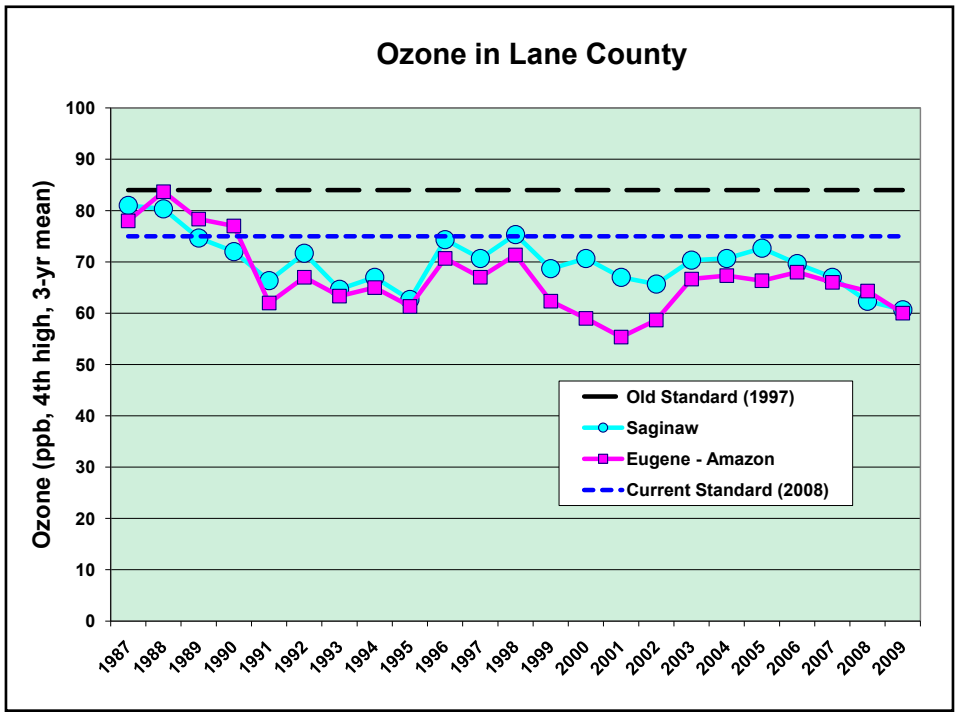
Monitoring Sites:

- **Amazon Park**
  (South Eugene)
- **Cottage Grove**
  (City Shops)
- **Downtown Eugene**
  (11th /Willamette)
- **Four Corners**
  (Highway 99/Roosevelt),
- **Oakridge Community Center**
  (Oakridge)
- **Saginaw**
  (Delight Valley Elementary School)
- **Santa Clara (meteorology only)**
  (North Eugene)
- **Springfield City Hall**
  (Springfield)

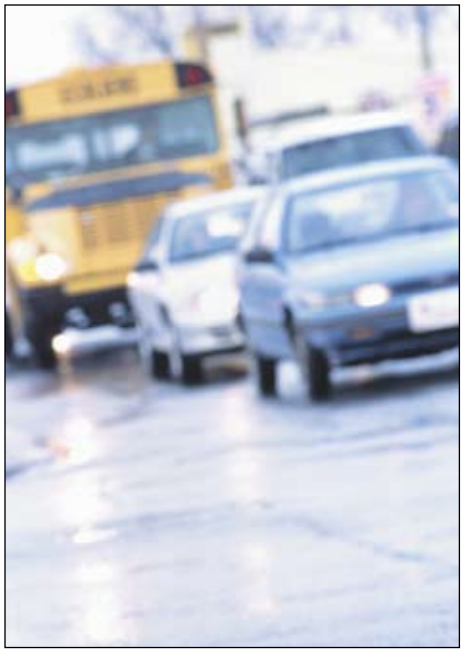
As PM_{10} levels have decreased in the last 20 years, focus has shifted to $PM_{2.5}$, also referred to as respirable particulate matter or fine particulate. Exposure to fine particulate can aggravate asthma, allergies, and heart and respiratory diseases. Sources of fine particulate include smoke from home wood heating, forest slash burns, vehicle exhaust, and industry. Health risks associated with exposure to $PM_{2.5}$ have driven efforts to reduce pollution through public education, wood stove changeouts, and local home wood heating advisory programs.

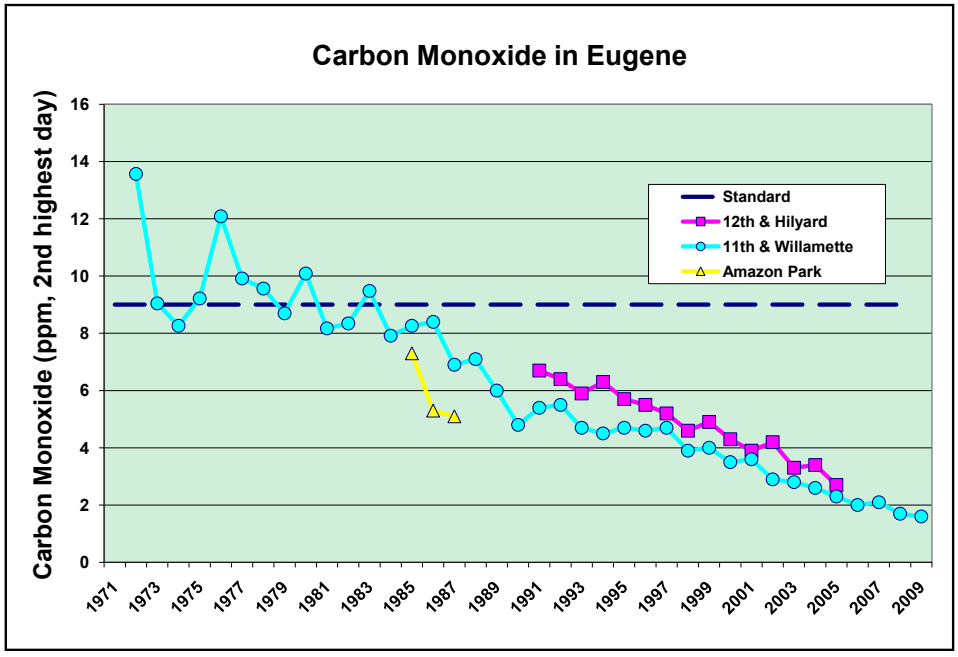
Lane County Trends





Formed on hot summer days, ozone can be transported by prevailing winds hundreds of miles from the source and is considered a regional problem. Better pollution controls in Lane County and upwind of the southern Willamette Valley have helped keep ozone levels within the standard. Ozone levels have dropped since the late 1980's and remain below the revised tighter primary and secondary eight-hour standards. EPA is currently reviewing the standard and is expected to tighten it even further it to be more protective of public health.





Carbon monoxide levels are measured at 11th and Willamette in downtown Eugene. The chart shows carbon monoxide concentrations in Eugene have steadily decreased due to cleaner fuels and better pollution controls on motor vehicles.

Lane County
Home Wood Heating Programs (HWH)

The Eugene/Springfield urban area and the City of Oakridge have home wood heating advisory programs to regulate burning during episodes of poor wintertime air quality. Residential wood stove smoke is a major source of PM_{10} and $PM_{2.5}$ emissions in these areas. According to LRAPA's emission inventory, residential home wood heating smoke accounts for 40 percent of all particulates emitted in Lane County. Home wood heating advisory programs in Lane County use a simple "green, yellow, red" advisory system to inform residents whether or not woodburning is allowed. Residents are notified of the daily advisories through local media, such as newspapers, radio and television stations. In addition, LRAPA has a 24-hour advisory line for up-to-date information, a web site, and uses an automated phone notification system with its Oakridge program. While home wood heating is allowed on most days, the agency encourages residents to avoid burning to reduce the health impacts associated with the inhalation of wood smoke.

Eugene/Springfield Program

The Eugene/Springfield home wood heating advisory program was established in 1986 to reduce pollution caused by home wood heating. Eugene/Springfield was designated a federal non-attainment area on August 7, 1987, after violating the federal PM_{10} standards on various occasions in past years. The program changed from voluntary to mandatory in January 1991 as part of LRAPA's federally required implementation plan designed to bring the area back into compliance with the PM_{10} standards.

The Eugene/Springfield mandatory program is now in its 19th season. Residents living within the Eugene/Springfield Urban Growth Boundary (ESUGB) are affected by the program, which runs from November 1 through the end of February. Residents with economic hardship may be granted an exemption from the program on a yearly basis.

In addition to the visible emissions ban during Phase I "red" advisories, the mandatory program includes a Phase II "red" advisory, which prohibits all burning in wood stoves (without an exemption) in cases of severe deterioration in air quality. Violations of the program can result in fines up to $500 per incident, issued by LRAPA.

In 2002, local ordinances were amended to:

- Ban burning of garbage in woodstoves/fireplaces,
- Add a 40 percent opacity limit on chimneys, and,
- Incorporate the $PM_{2.5}$ standard into the HWH season program.

The amendments were adopted on 7/22/02 in Eugene, 10/30/02 in Springfield, and 9/24/03 in the Eugene/Springfield UGB by Lane County. In 2008, the cities of Eugene and Springfield again revised their ordinances to reflect the recently amended $PM_{2.5}$ standard, which dropped the allowable concentration to 35 µg/m^3.

Eugene/Springfield HWH Advisories 1999 - 2009 Seasons

Season Year (Nov. - Feb.)	Yellow	Red I	Red II	PM Exceedances
*2009-2010	12	0	0	8
*2008-2009	10	0	0	4
*2007-2008	6	1	0	2
*2006-2007	7	0	0	0
*2005-2006	18	0	0	0
*2004-2005	6	0	0	0
*2003-2004	0	0	0	0
*2002-2003	4	0	0	0
*2001-2002	5	0	0	0
*2000-2001	6	0	0	0
*1999-2000	0	0	0	0

**Based on $PM_{2.5}$ monitored levels*

Challenges Ahead

On October 8, 2009, the Environmental Protection Agency (EPA) issued final area non-attainment designations for the 24-hour national air quality standards for fine particulate matter ($PM_{2.5}$). Oakridge and Klamath Falls were the two cities designated non-attainment areas in Oregon.

LRAPA will work with the City of Oakridge to detail steps in a state implementation plan (SIP) that demonstrates how they will meet the 24-hour $PM_{2.5}$ standards. The plan must be submitted to EPA within three years after the effective date of the agency's final designations provided in the Federal Register.

Oakridge will be required to meet the standard by 2014. EPA may grant attainment date extensions for up to five additional years in areas with more severe $PM_{2.5}$ problems.

Oakridge Program

The City of Oakridge adopted a voluntary home wood heating advisory program in 1989, after air quality data showed Oakridge exceeded the federal PM_{10} standard on numerous occasions. Five years later, on January 20, 1994, EPA officially declared Oakridge a PM_{10} non-attainment area. A plan to get the area back into attainment with the standards was adopted by EPA in March 1999, and became effective on May 14th of that year. Unlike Eugene/Springfield's strategies which were mandatory, the Oakridge plan included voluntary measures.

On February 20, 2003, the Oakridge City Council adopted a home wood heating ordinance that:

- Changed their voluntary measures to mandatory,
- Prohibited burning garbage in woodstoves and fireplaces,
- Incorporated a 40 percent opacity limit on chimneys,
- Incorporated the $PM_{2.5}$ standard into the program, and
- Required the removal of uncertified woodstoves from property to be sold or rented.

In fall 2007, the City of Oakridge revised its home wood heating ordinance to reflect the tightened $PM_{2.5}$ standard of 35 $\mu g/m^3$. Meeting the new standard proved to be a challenge for Oakridge. In December 2007, Oakridge was one of two cities in Oregon proposed as a $PM_{2.5}$ "non-attainment" area and was officially designated in October 2009.

The Oakridge mandatory program uses the same basic principles as the Eugene/Springfield mandatory program, but enforcement is conducted by the City of Oakridge, rather than LRAPA. In addition to daily advisories issued by LRAPA, the agency uses an automated call system in Oakridge to inform residents by telephone of yellow and red home wood heating advisories.

In winter of 2006, the Warm Homes, Clean Air program was initiated. The program matches Oakridge and Westfir residents with funding from nine partner agencies to help with heating upgrades, weatherization, and home repairs. As part of the program, LRAPA provided funding for woodstove replacements. Between July of 2006 and December of 2009, 70 uncertified woodstoves were replaced, resulting in a calculated yearly reduction of over 4 tons of particulate matter from the airshed. Further reductions will occur as the result of home weatherization and repairs. This program will continue as funds are made available.

Oakridge HWH Advisories 1999 - 2009 Seasons

Season (Nov. - Feb.)	Yellow	Red	PM Exceedances
*2009-2010	34	0	7
*2008-2009	29	10	11
*2007-2008	22	5	5
*2006-2007	28	0	0
*2005-2006	20	1	1
*2004-2005	37	0	0
*2003-2004	15	0	1
*2002-2003	29	0	2
*2001-2002	11	0	3
*2000-2001	35	2	2
*1999-2000	11	0	2

**Based on $PM_{2.5}$ monitored levels*

Wood Burning Advisories
(November — February)

LRAPA uses the $PM_{2.5}$ standard when determining home wood heating advisories. Advisories are determined by comparing current pollution levels to current meteorological conditions and weather forecasts.

Eugene/Springfield and Oakridge

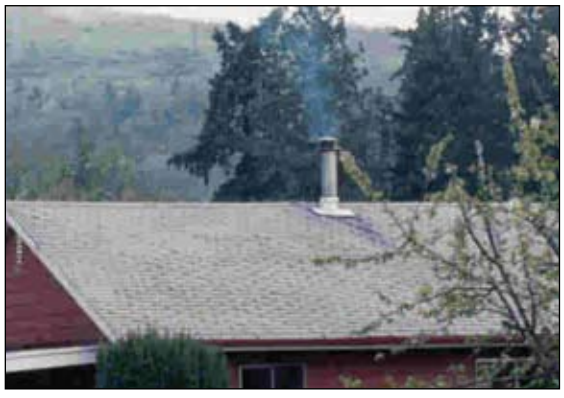
Green— Means air quality is good at this time and unrestricted use of a wood heating device is allowed. Called when pollution levels are forecast to be less than 25 µg/m³ (micrograms per cubic meter) – the standard being 35 µg/m³.

Yellow— Means air quality is deteriorating. Residents are asked to cut back on home wood-heating use. Called when pollution levels are forecast to be greater than or equal to 25 µg/m³, but less than 30 µg/m³.

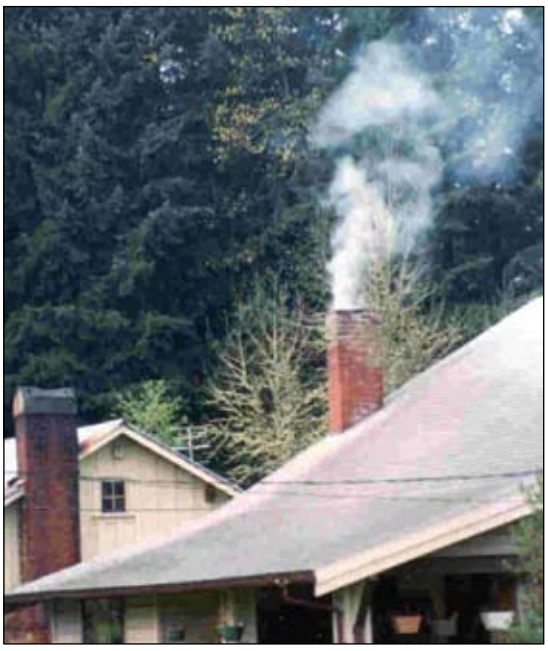
Red I— Means air quality is reaching an unhealthy stage. Visible smoke from a chimney will result in a violation, unless the resident has an exemption. Burning is allowed if done without producing any visible smoke. Called when pollution levels are forecast to be greater than or equal to 30 µg/m³, but less than 35 µg/m³.

Red II— Means all burning must stop. Use of a pellet stove is allowed if no visible smoke is emitted into the air. Called when levels are forecast to be greater than or equal to 35 µg/m³.

Firewood Tree Species	Available Heat Million Btu/Cord 20% Moisture
Alder	20
Apple	35
Ash	27
Birch	24
Cedar	16
Cherry	25
Cottonwood	17
Elm, American	18
Fir, Douglas	23
Fir, White	19
Hemlock	21
Juniper	25
Madrone	34
Oak, Red	29
Oak, White	33
Maple	25
Pine, Lodgepole	20
Pine, Ponderosa	18
Pine, White	18
Poplar	12
Walnut, Black	25
Walnut, English	25
Willow	16



Chimney smoke should be negligible when a wood stove/fireplace is being properly used.



A smoky chimney indicates improper use of a wood stove/fireplace and emits excess pollution into the air.

Program Summaries

Operations

Permitting

LRAPA-issued operating permits are required for a number of industries and businesses in Lane County. Of the 173 permitted sources in Lane County, 154 have basic Air Contaminant Discharge Permits (ACDP), and 19 hold Title V Federal Operating Permits.

ACDPs are issued to all industries required by LRAPA rules to obtain permits, except those "major" sources subject to federal operating permit requirements. Industrial sources are classified as "major" sources if they have the potential to emit more than 100 tons of any criteria pollutant (see pg. 11), or 10 tons or more of any single hazardous air pollutant (HAP) or 25 tons or more of any combination of HAPs on an annual basis.

Industrial source categories in Lane County which require operating permits include: food and agriculture, wood products manufacturing, chemical products manufacturing, mineral products manufacturing, metal products manufacturing; waste treatment, fuel burning, fuel transfer operations, coating operations, sources of toxic air pollutants, and any source emitting more than 10 tons per year of any combination of criteria pollutants.

2009 Permitting Summary –

Permits issued or renewed 113
Permits modified..... 9
Industries inspected 51
Note: Some industries have multiple inspections in a year.

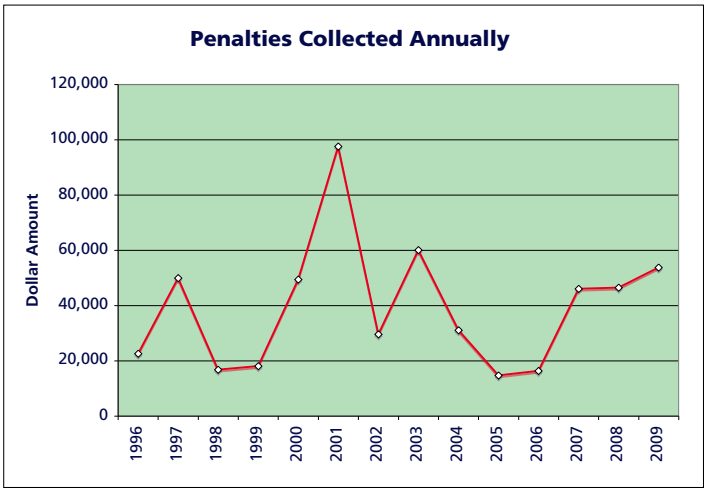
Enforcement

LRAPA initiates enforcement actions in instances of excessive industrial air pollution, illegal open burning activities, improper handling or transport of asbestos-containing materials, and failure to obtain necessary air pollution permits prior to construction or operation.

Typically, the dollar amount of penalties collected annually does not strictly reflect the penalties assessed or settled during the year, due to pending cases and collections received on previous years' penalties.

LRAPA collected $53,786 in penalties during 2009. All penalties collected are forwarded to the Lane County general fund; however, attorney fees associated with contested cases are deducted first.

Administrative warnings/
Notices of non-compliance 37
Notices of violation with civil penalty: 28



Enforcement Actions 1999 - 2009

Year	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Administrative warnings and Notices of non-compliance	91	118	102	129	103	52	55	51	48	57	37
Notices of violation with civil penalty	39	80	64	72	67	31	39	33	47	36	28

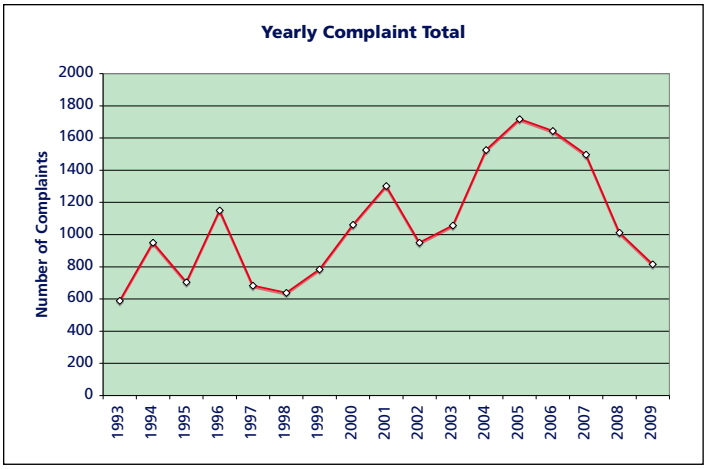
Total civil penalties collected $	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
	16,775	18,070	49,437	97,584	49,590	31,097	14,700	16,404	46,050	46, 526	53,786

Program Summaries

Asbestos Abatement

Remodeling and renovation projects in Lane County that include asbestos abatement must register with LRAPA. In 2009, LRAPA documented 408 notifications of asbestos abatement projects. LRAPA inspected 119, or 29 percent, of all projects. Eight violations were found. By category, the total number of abatement projects included:

Residential..... 226
Schools 64
Business/Industry 105
Other 13



Complaint Response

It is LRAPA's policy to investigate in a timely manner every complaint called into the agency. Staff investigated approximately 800 formal complaints in 2009. Field burning complaints, however, are typically not investigated by staff, but forwarded to the Oregon Department of Agriculture, which has jurisdiction.

The number of complaints, and percent changes from the previously are as follows by category:

Dust ..... +0%
Field burning ..... -76%
General air quality ..... +33%
Home wood-heating..... -13%
Industry ..... +16%
Miscellaneous..... -51%
Open burning..... -5%
Slash burning ..... -88%
Unknown ..... -57%
Total complaints .....-19%

LRAPA Complaints 1999 - 2009

Year	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Dust	17	17	27	25	15	17	35	33	16	21	21
Field burning	279	198	199	294	96	103	330	576	341	101	24
General air quality	11	4	4	4	6	2	8	7	63	14	21
Home wood heating	53	37	58	73	71	82	80	89	82	130	113
Industry	118	492	689	168	530	880	768	465	327	231	270
Miscellaneous	46	46	44	34	32	66	75	95	109	137	61
Open burning	91	91	103	142	90	163	179	169	390	293	277
Slash burning	9	35	18	23	9	8	31	41	33	25	3
Unknown	55	49	61	65	103	110	97	105	124	59	25
Total	**783**	**1060**	**1301**	**950**	**1056**	**1525**	**1719**	**1643**	**1496**	**1011**	**815**

Program Summaries

Technical Services

Monitoring and Data Management

LRAPA's monitoring network consists of 41 sets of monitoring equipment at 11 sites in Lane County including Eugene, Springfield, Coburg, Saginaw, Cottage Grove, Florence, and Oakridge. LRAPA's network samples for particulate matter, ozone, carbon monoxide, and hazardous air pollutants. Approximately 242,448 hours of pollutant-related and meteorological data were collected last year.

With the exception of air toxics, the agency's in-house laboratory analyzes samples collected from the monitoring network, and staff regularly calibrates all network equipment.

Airmetrics

Airmetrics is an LRAPA enterprise that manufactures an inexpensive, portable, battery-operated air sampler patented as the MiniVol. Building on the success of the MiniVol, Airmetrics replaced the original sampler with the next generation MiniVol TAS (Tactical Air Sampler) to better meet the needs of the market. The sampler has been adapted to sample gaseous pollutants, such as carbon monoxide and nitrogen oxides, as well as particulates (PM_{10} and $PM_{2.5}$).

The MiniVol and related products are sold worldwide with over 50 percent of annual sales being international. Sales for the '08-'09 fiscal year totaled $833,458 with a net profit to the agency of $39,174. Revenues generated by the enterprise are allocated to help defray capital costs.

Sponsored by
Lane County Pollution Prevention Coalition

Education and Outreach

LRAPA understands that public education is an integral part of any program if lasting behavioral changes to reduce air pollution are to occur.

The agency provides education to the community by forming partnerships with local media and other private and public entities; providing written materials such as brochures and fact sheets; making presentations to service-clubs, local, state, and national professional associations; providing education at area schools; participating in local fairs and trade shows; and sharing agency information on its website: www.lrapa.org.

2009 education projects included:

- Classroom presentation program:
  - Oakridge elementary school
  - Oakridge outdoor school program
  - Eugene Four-J Natives program
  - Thurston High School
  - Roosevelt Middle School Science Class
  - Churchill High School Chemistry Class
- Oakridge School Air Quality Index (AQI) flag project
- University of Oregon class presentations
- Warm Homes/Clean Air Oakridge wood stove changeout
- Home Wood Heating season advisory program
- New home owners monthly mailing on home wood heating
- Eco-biz program for auto repair shops
- Lane County Home and Garden Show
- Home Wood Heating ads on Spanish radio and television
- Regional open burning TV/radio/newspaper ad campaign
- Asbestos Outreach (weekly direct mailings, presentations to groups)
- No-idle school campaign

Field Burning Summary

The Department of Agriculture has jurisdiction over field burning in Oregon. Due to public interest, LRAPA summarizes field burning data in the southern Willamette Valley, including Benton, Linn and Lane counties. In June 2009, the Oregon Legislative Assembly passed Senate Bill 528, which greatly reduces field burning allowed in the Willamette Valley. Starting in 2010, open field burning will be limited to small, restricted areas in the northern Willamette Valley or only in emergency cases.

The maximum acreage allowed to be propane flamed in 2010 will be 500 acres. After 2013, no propane flaming of grass seed or cereal grain residues will be allowed in the Willamette Valley. Stack burning will also be restricted in 2010 and not allowed after 2013.

Field Burning Year-end Totals

Year end	S. Willamette acres burned	Number of intrusions	Impact hours	Number of complaints
2009	18,027	0/Eug. 0/Spfld.	0/Eug. 0/Spfld.	24
2008	24,710	0/Eug. 0/Spfld.	0/Eug. 0/Spfld.	101
2007	19,738	0/Eug. 0/Spfld.	0/Eug. 0/Spfld.	341
2006	34,045	0/Eug. 0/Spfld.	0/Eug. 0/Spfld.	576
2005	33,702	2/Eug. 3/Spfld.	2/Eug. 6/Spfld.	330

Special Projects

In its continuing effort to address community concerns, LRAPA was involved with a number of special projects in 2009. Special projects may be conducted internally, or in support of planning or community development efforts by other local, state and federal agencies. These projects are conducted in addition to routine agency functions and often require the use of additional temporary staff.

◆ ***Warm Homes/Clean Air Oakridge Community Project*** – This LRAPA-sponsored collaborative effort matches residents with funding programs that help with the costs of home repairs, weatherization, and heating system upgrades. Through this effort, organizers work together to bring residents a tailored set of options designed specifically for them using a single application form, eliminating the need for residents to search for available funding programs. LRAPA has been successful in obtaining funding for wood stove changeouts. As of December 2009, 70 uncertified wood stoves have been upgraded to newer, clean-burning appliances. Additional funding may be available in 2010 to help with more wood stove replacements and public education. *(In progress)*

◆ ***Everybody Wins Phase II*** – Since the installation of 250 APUs (auxiliary power units) on over-the-road trucks using the I-5 corridor, LRAPA has worked with project partner LCOG (Lane Council of Governments) to install active GPS data transmitting units on trucks from three small Oregon truck fleets. These trucks are using the APUs made available through the LRAPA program to reduce main engine idling, which significantly reduces diesel emissions. In the face of today's challenging economy and high diesel fuel prices, the APUs are also a critical asset in keeping independent owner-operators financially solvent and able to work.

LCOG concluded the APU usage study during June of 2009 and a draft copy of the report was forwarded to LRAPA and EPA for review and comments. After LRAPA staff review of the report in mid-June, LCOG finalized the report toward the end of June 2009 and copies of the reports were distributed to EPA and LRAPA. The data stream from the onboard GPS units (AMD) will provide valuable information about driver habits, use patterns of the APUs, and the cost effectiveness of this idle reduction strategy. *(In progress)*

◆ ***School No-Idle Campaign*** – Funding was secured to purchase no-idle zone traffic signs for use at local schools. As of December 2009, over 54 no-idle signs were installed at Eugene, Springfield, Junction City, Cottage Grove, and other Lane County elementary and middle schools. In addition, over 4,000 flyers were sent home with students to remind parents of the importance of being idle-free. Signs are distributed by individual request. *(On-going)*

Special Projects

◆ ***Ultra Low Sulfur Diesel Buy-Down Project*** - Another statewide partnership with the Oregon DEQ, this project provided a $0.05 per-gallon subsidy toward the purchase of ultra low sulfur diesel. Private and public fleets were able to apply for the subsidy under this project.

The project's scope has been modified to provide funding for engine re-power of heavy-duty off-road and construction machinery. LRAPA and Oregon DEQ are collaborating to find construction companies or area fleets that meet the qualifications for the funds. LRAPA will consider qualified projects and the EPA funds will be utilized to cover 25% of the total cost, not to exceed the current available funding of approximately $62,000. Funding must be used by June, 2010. *(On-going)*

◆ ***Lane Clean Diesel Project*** - The stakeholders participating in this project have succeeded in providing a stable and affordable supply of ultra low sulfur diesel fuel (ULSD) and biodiesel in Lane County. Bulk storage tanks for ULSD have been added to fuel distribution sites in Eugene. ULSD and biodiesel are available at a card lock facility in Oakridge, and the Pacific Northwest's first biofuel retail station opened in Eugene in August 2006. LRAPA continues to assist public and private partners in applying for additional EPA funding that will promote the use of alternative fuels. *(On-going)*

◆ ***Clean School Bus USA*** – School districts in Lane County continue to utilize EPA grant funding for school bus engine retrofit and replacement. LRAPA collaborated with the Oregon Department of Environmental Quality (DEQ) to secure another EPA Clean School Bus grant award to upgrade three buses in the Oakridge/Westfir School District fleet in the 2008-2009 school year. The upgrades were completed in fall 2009 and a media event was held in October. Recent health studies about exposure levels of diesel exhaust to in-cabin school bus children have also prompted an aggressive effort at the state level to retrofit all 1994 and newer buses with closed crankcase ventilation (CCV) systems. LRAPA will continue to coordinate with Lane County School Districts and DEQ in this campaign, which will retrofit 2,200 Oregon school buses with CCVs by 2013. *(On-going)*

◆ ***Oakridge School Flag Project*** – An air quality curriculum was developed for students at Oakridge Elementary School. The curriculum explains the health impacts of air pollution and how the air quality index is used to provide the public with simple information on local air quality. The curriculum includes learning activities and four color-coded air quality "flags" that are displayed by fifth grade students at the front entrance of the school to show air quality for that day. LRAPA staff also give classroom presentations each October to support the curriculum. *(On-going)*

1010 Main Street
Springfield, Oregon 97477

Phone: 541-736-1056
Toll-free: 1-877-285-7272
Fax: 541-726-1205

E-mail: lrapa@lrapa.org
www.lrapa.org