Lane Regional Air Protection Agency
2012 Annual Report

Partnerships

Involvement

45

Air Quality

Service

LRAPA
Lane Regional Air Protection Agency

Serving Lane County for 45 years

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Letter from the Director

The ultimate measure of a man is not where he stands in moments of comfort and convenience, but where he stands at times of challenge and controversy.

— Martin Luther King, Jr.

These past few years are the most difficult economic and political times, both nationally and locally, that I have experienced in my environmental career. During these difficult times, the staff at LRAPA has continued to demonstrate their commitment to those we serve.

LRAPA's work to carry out the requirements of the federal Clean Air Act has resulted in reductions in air pollution from a variety of sources. Lane County has seen reductions in particle pollution, ozone, and air toxics, which makes our community healthier for everyone.

The future looks good for air quality in Lane County. LRAPA will continue to work with the City of Oakridge, which is close to meeting the federal standard for short-term particle pollution. We have a good plan, and now we need to complete the implementation of the adopted strategies. The area will also see reductions in air toxics related to motor vehicle emissions. In 2012, reformulated gasoline with a lower benzene content became available in the Pacific Northwest. We expect to see benzene levels drop significantly in the local airshed, reducing the health risk associated with exposure to this air toxic.

At the national level, several intiatives could have a significant effect on the future of the LRAPA region:

- New Source Performance Standards for residential woodheaters will result in cleaner burning new woodstoves and outdoor wood boilers. These new standards will help maintain compliance with air quality standards for particulate matter (soot) over the long term as the newer units replace more-polluting existing woodstoves.
- New Tier 3 standards for motor vehicles and fuels will similarly help maintain compliance with ozone health standards, and further reduce air toxics exposure.
- Tighter ozone standards are expected within the next year, and current trends in Lane County indicate we are on track to meet the expected more-protective standard.
- President Obama has outlined a climate change plan for the U.S. Environmental Protection Agency to implement over the next few years; parts of this plan will involve local businesses and citizens.

We believe, as do our partners, that LRAPA is the most efficient and cost-effective way to implement local ordinances that are a critical part of the air quality strategies developed to meet health standards in Lane County. The Eugene Area Chamber of Commerce and the Springfield Chamber of Commerce support LRAPA and have gone on record to say meeting air quality standards is not only important for protecting public health and the livability of the area but also for economic development.

I believe an agency is only as good as the people who work there. I'd like to give credit to the hard working staff that remains dedicated to our vision and mission during times when there are questions about the agency's function and existence. They have shown a willingness to take on new tasks as staff numbers dwindled. Work in a regulatory setting can be hard. LRAPA staff accepts that challenge and consistently receives high marks for exceptional customer service from local citizens, permitted businesses, and other stakeholders.

Throughout its 45-year history, LRAPA has remained focused on the goals of air quality, involvement, service, and partnership. Through dedication, innovation, and determination, we will continue our work of improving the health of the community.

Lane Regional Air Protection Agency: 45 Years of Progress in Improving Air Quality

LRAPA's first director, Vern Adkinson, surveys the smoky haze that blotted out the sun in Eugene on Black Tuesday.

Pollution controls installed at this wood products industry have helped reduce emissions that historically impacted air quality.

Looking back over 45 years, Lane County residents have seen a changing landscape, a large growth in population, and a shift in industry. What has not changed is a sense of environmental stewardship and the desire to protect Lane County's land, air, and water. These values are reflected in the support for a local air agency.

For residents new to Lane County, it's hard to imagine how things were 45 years ago. Wigwam burners dotted the landscape, filling the air with black smoke from burning lumber mill wood waste. Grass seed fields were burned with little regard to the smoke impacts on local communities. Field burning contributed to the worst two air quality days in local history. One incident, which occurred on August 9, 1969, was dubbed "black Tuesday" when smoke from field burning blotted out the sun during the middle of the day in Eugene.

The black Tuesday incident in 1969 was timely as the Lane Regional Air Pollution Authority had been formed the previous year by the governments of Lane County, Eugene and Springfield. The original agreement between the three jurisdictions stated: "It is the primary intention of the agreement to participate in a statewide program of air quality control by establishing standards for the promotion of the purity of air and to promulgate and enforce uniform ordinances and regulations. It shall be the objective of the Authority to maintain such a reasonable degree of purity of air resources in Lane County to the end that the least possible injury should be done to human, plant or animal life or to property, and to maintain the public's enjoyment of our natural well-being of the area.

LRAPA's first director, Vern Adkison, had a keen interest in finding a solution to the problem of air pollution from wigwam burners. His efforts resulted in most of the 200 active burners being shut down by 1973. None are in operation today and wood waste is now processed into charcoal by the Kingsford plant in Springfield.

LRAPA has been a survivor, staying in business during time of political pressure in the 1970's and solvent during the recession of the early 1980's. These two decades also proved to be challenging for air quality. The Eugene/Springfield metropolitan area did not meet federal air quality standards for carbon monoxide and particle pollution (PM_{10}).

Fast forward to 2012 and the picture has changed dramatically. Despite explosive growth in Lane County, air quality is much improved. The Eugene/Springfield area meets the standards for all criteria pollutants. The focus has shifted to tackling specific sources of pollution. This has become a priority, especially in the small town of Oakridge, where smoke from home wood heating has pushed the community out of compliance with the federal health-based standard for fine particles.

Air toxics, pollutants known or suspected of causing cancer and respiratory disease, have received considerable attention. LRAPA's air monitoring station in Amazon Park has been used to sample air toxics in an urban neighborhood setting. Over ten years of sampling identified a number of air toxics above health-based benchmarks. The good news is levels are going down and will continue to decrease due to efforts to reduce toxics in vehicle fuels, a rduction in residential wood heating emissions, and industrial manufacturing processes.

Innovative Programs to Tackle Air Quality Problems

LRAPA has been called the small agency that does big things. Through

partnerships and cooperation, LRAPA has developed a number of programs to reduce air pollution. The Clean Lane Fuel program provided early implementation of reasonably priced Ultra Low Sulfur Diesel and biodiesel to local government and private fleets. LRAPA helped bring in grant funding for local schools to replace old school buses and help them retrofit buses with new technology that reduces diesel emissions. LRAPA also sponsors a school no-idling campaign to reduce emissions from motor vehicles dropping off and picking up children at schools. The Everybody Wins Program was developed to reduce idling emissions from long-haul trucks.

LRAPA was a partner in an effort to bring about reductions in the benzene levels in gasoline sold in the Pacific Northwest. The successful effort during 2007 EPA deliberations resulted in a more protective standard and benzene levels in gasoline sold in the Pacific Northwest is now greatly reduced thanks to effort by LRAPA and northwest air agencies.

The Warm Homes/Clean Air project in the City of Oakridge and other energy-related programs have been developed to replace inefficient home heating systems with cleaner and more efficient units. The Warm Homes project was developed in 2005 and program was expanded in 2010.

Efforts to improve air quality started in Oakridge in the lates 1980's. A successful wood stove replacement program conducted in 1993, along with funding through the Warm Homes project, has helped remove 279 uncertified stoves in Oakridge. Funding from LRAPA helped replace 137 old stoves in Eugene, Springfield and Cottage Grove in 2010/11. Lower emissions, improved air quality, and reduced fuel use have resulted from the program.

LRAPA's public education program recognizes the value of investing now to make long-term changes that result in cleaner air. The agency's outdoor school programs introduce students to the science of air pollution and help foster good habits that children carry into adulthood. LRAPA's comprehensive home wood heating and backyard burning advisory programs, along with wood stove change-outs, have helped reduce wood smoke emissions that impact air quality in areas of the county.

A relic from the past: Wigwam burners disappeared from the landscape as wood waste became a marketable material that could be used to make particle board, charcoal briquettes, and used as raw material for pulp and paper production. The last of the wigwam burners ended operation in the 1980's.

As new motor vehicles and fuels become progressively cleaner, additional reductions in air toxics will be realized. As older vehicles are replaced by new cars and trucks with better pollution control equipment, toxic emissions will be reduced. Newer gasoline and diesel fuels will also result in lower toxic emissions. Emissions from industry have also been reduced by implementing Maximum Attainable Control Technology Standards (MACT) on affected industrial facilities.

The future

The last 45 years have been a bumpy, yet very successful ride for LRAPA. Despite the challenges that the agency faces, the mission remains the same: *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.*

LRAPA Organization

2012 LRAPA Board of Directors

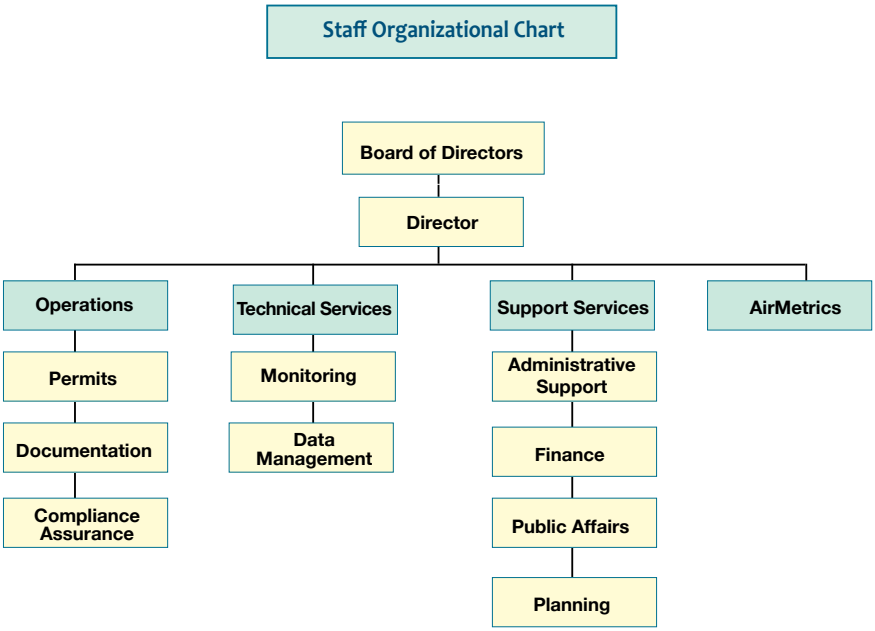
Bill Brommelsiek Chair
At-large - Springfield
Mike Fleck Vice Chair
Cottage Grove City Council
Jay Bozievich
Lane County Commissioner
Brian Forge
At-Large - General (board appointee)
Scott Lucas
Appointment - Eugene
David Monk
Eugene City Council appointee
Andrea Ortiz
Eugene City Councilor
Jeannine Parisi
Eugene City Council appointee
Dave Ralston
Springfield City Councilor

2012 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:

Dick Beers, Eugene
Bob Brew, Springfield
Maurie Denner, Representing General Public
Glenn Fortune, Representing Oakridge/ Cottage Grove
Landa Gillette, At-Large, General
Chuck Gottfried, Representing Agriculture
Randy Hledik, Representing Industry, Eugene
Earl Koenig, Representing General Public
Tom Musselwhite, Representing General Public

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.



Current LRAPA Citizens Advisory Committee

The LRAPA Citizens Advisory Committee is comprised of 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 - 13 yrs. service
Representing General Public
Jim Daniels - 3 yrs. service
Representing Large Industry
Maurie Denner - 8 yrs. service
Representing General Public
Larry Dunlap - 14 yrs. service
Representing Public Health
Paul Engelking - 15 yrs. service
Representing General Public
Chuck Gottfried - 4 yrs. service
Representing Agriculture
Randy Hledik - 2 yrs. service
Representing Industry
Earl Koenig - 5 yrs. service — Chair
Representing General Public
Hugh Larkin II - 6 yrs. service
Representing General Public
Monique Lopez - 2 yrs. service
Representing General Public
Laura Seyler - 2 yrs. service
Representing Large Industry
Link Smith - 4 yrs. service
Representing Fire Suppression
John Tamulonis - 15 yrs. service
Representing Planning
Gary Vander Meer - 10 yrs. service
Representing General Public

LRAPA Organization

The LRAPA staff consists of 16 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 all 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

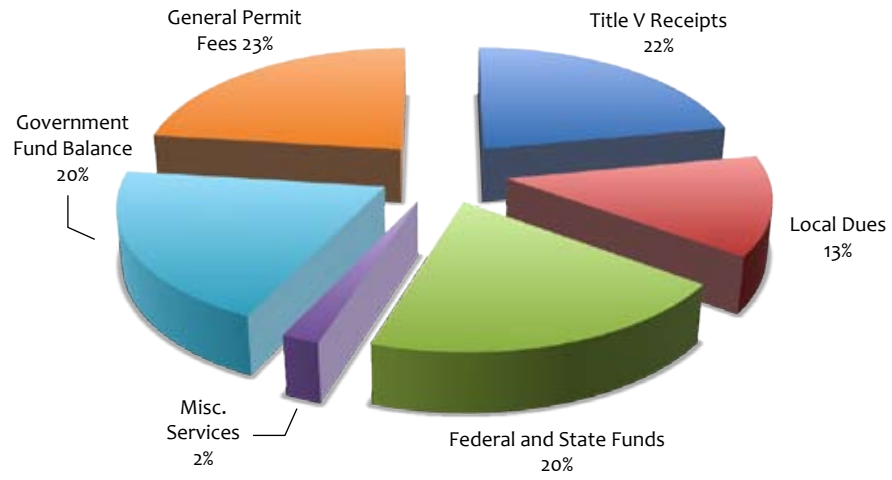
Public Information/Education - works with all sections of the agency to promote public understanding, education and awareness of the agency and local air quality issues.

Airmetrics

Manufactures and markets portable air-sampling devices and services.

Funding/Budget

Core Funding Resources FY 2012 — $2,557,200



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; and miscellaneous contracts.

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

Program Summaries

Operations

Permitting

LRAPA-issued operating permits are required for a number of industries and businesses in Lane County. Of the 323 permitted sources in Lane County, 304 have basic Air Contaminant Discharge Permits (ACDP), and 19 hold Title V Federal Operating Permits. Permits for gasoline dispensing facilities were issued to 106 businesses.

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, 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.

2012 Permitting Summary –

Permits issued or renewed.....80
Permits modified 19
Industries inspected.....82

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 $29,727 in penalties during 2012. All penalties collected are forwarded to the Lane County general fund; however, attorney fees associated with contested cases are deducted first. In 2012, LRAPA issued 41 administrative warnings/notices on non-compliance and 29 notices of violations with civil penalties.

Asbestos Abatement

Remodeling and renovation projects in Lane County that include asbestos abatement must register with LRAPA. In 2012, LRAPA documented 324 notifications of asbestos abatement projects. LRAPA inspected 90, or 28 percent, of all projects. Eight violations were found. By category, the total number of abatement projects included:

Residential.....168
Schools.....53
Business/Industry 79
Other 24

Civil penalties were assessed for the asbestos violation at the site of a demolished manufactured home (left) and open burning of prohibited materials (right).

Enforcement Actions 2002 - 2012

Year	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Administrative warnings and Notices of non-compliance	129	103	52	55	51	48	57	37	57	64	41
Notices of violation with civil penalty	72	67	31	39	33	47	36	28	39	42	29

Total civil penalties collected $	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
	97,584	49,590	31,097	14,700	16,404	46,050	46, 526	53,786	27,941	28,187	29,727

Program Summaries

Complaint Response

It is LRAPA's policy to investigate in a timely manner every complaint called into the agency. Staff investigated approximately 645 formal complaints in 2012. LRAPA also receives hundreds of phone inquiries that do not result in formal complaints being filed. Responsibility for LRAPA's comprehensive complaint response program is shared by numerous staff in the operations and administrative divisions.

Overall, complaints decreased in 2012. The majority of complaints involve smoke emissions from open burning and residential wood heating. Industrial complaints have decreased over the last three years. Athough field burning no longer occurs in the south valley, LRAPA did receive 18 complaints about ecological burning in west Eugene. LRAPA is working with the partner agencies that conduct ecological burning to reduce smoke emissions that impact residential areas.

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

Dust ..... +25%
General air quality ..... +0%
Home wood-heating ..... -42%
Field Burning ..... -92%
Industry ..... -32%
Miscellaneous ..... -28%
Open burning ..... -27%
Slash burning ..... -57%
Unknown ..... -47%
Total complaints ..... -30%

LRAPA Complaints 2001 - 2011

Year	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Dust	25	15	17	35	33	6	21	21	34	33	44
Field burning	294	96	103	330	576	341	101	24	9	13	1
General Air Quality	4	6	2	8	7	63	14	21	2	6	6
Home Wood Heating	73	71	82	80	89	82	130	113	62	135	95
Industry	168	530	880	768	465	327	231	270	265	169	128
Miscellaneous	34	32	66	75	95	109	137	61	77	101	79
Open Burning	142	90	163	179	169	390	293	277	268	341	268
Slash Burning	23	9	8	31	41	33	25	3	5	16	7
Unknown	65	103	110	97	105	124	59	25	12	25	17
Total	**950**	**1056**	**1525**	**1719**	**1643**	**1496**	**1011**	**815**	**734**	**839**	**645**

Public Education

The LRAPA Public Affairs office provides a number of services to the agency including media relations, communications, public education, and community outreach.

The scope of work includes media relations; anti-idling campaigns targeting schools; classes for elementary, middle, high school and college students; specialized classes for real estate groups, outreach to new homeowners, assistance with air quality planning projects; community events-planning (the Lane County Home Show, vehicle emission testing); special projects; serving on interagency committees; public speaking; print and electronic design.

LRAPA public affairs staff provide air quality education to local groups and schools. A science based curriculum is offered for grades 3-12 and customized presentations on different topics are available for college classes.

Technical Services

LRAPA's air quality monitoring network consists of 7 monitoring sites that measure a total of 500 parameters. The agency collected about 300,000 hours of pollutant-related data in 2012. At an estimated operational cost of $280,259 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.

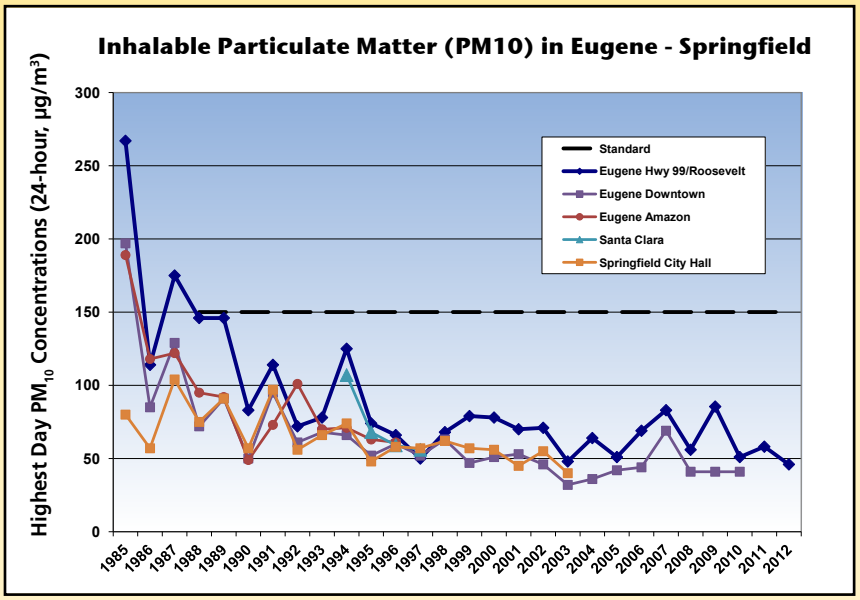
LRAPA's network includes three locations in Eugene, and one each in Springfield, Oakridge, Cottage Grove, and Saginaw.

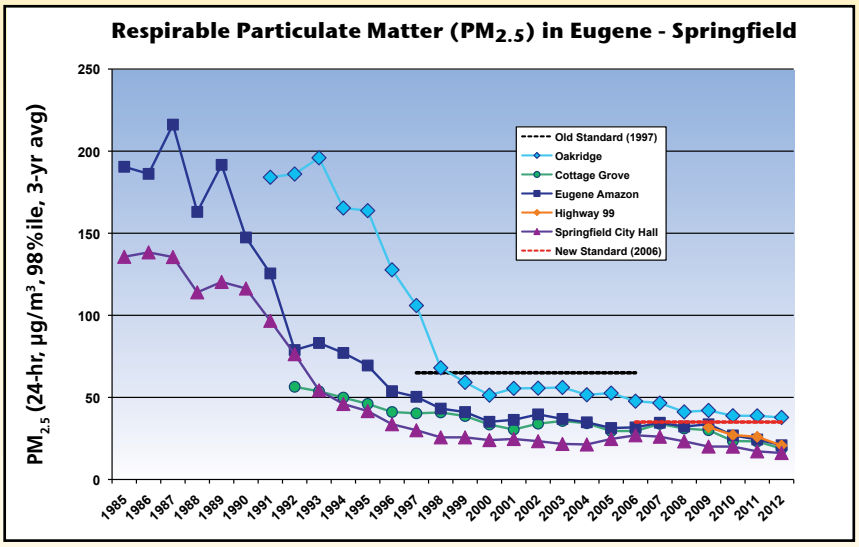
2012 Monitoring Sites:

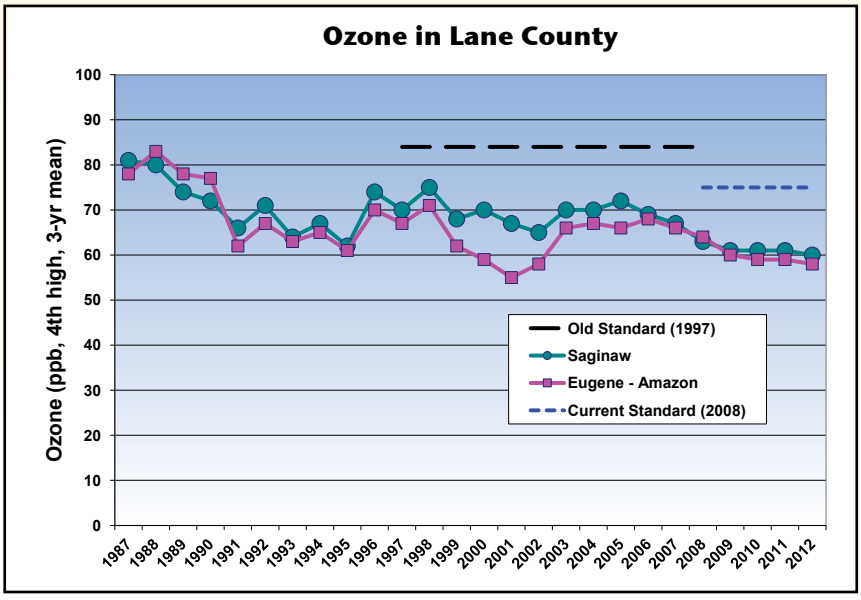
- Amazon Park (South Eugene)
- Cottage Grove (City Shops)
- Four Corners (Highway 99/Roosevelt),
- Oakridge Community Center (Oakridge)
- Saginaw (Delight Valley Elementary School)
- Santa Clara (meteorology only) (North Eugene)
- Springfield City Hall (Springfield)

Charting the long-term trends of criteria pollutants provides a snapshot of air quality improvements over the last 27 years. All areas have experienced significant improvement in air quality. Levels of particulate matter are well within the federal standard for all areas except for the City of Oakridge. Ozones levels have also decreased despite steady population growth in the Eugene/Springfield metro area.

Long Term Trends







Air Quality Index

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.

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."

LRAPA's home page on the web displays current air quality and advisories. The AQI display shows a rolling 24-hour average for the monitor recording the highest level of a specific pollutant. More comprehensive data from LRAPA's monitoring network can be accessed by clicking on the real time data link under the AQI display.

Air Quality Index Summary

Eugene/Springfield (number of days)

Year	Good	Moderate	Unhealthy (Sensitive)	Unhealthy
2012	308	58	0	0
2011	329	39	0	0
2010	347	18	0	0
2009	321	35	8	1
2008	325	40	1	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
2012	308	43	7	0
2011	299	53	12	0
2010	303	49	4	0
2009	282	59	20	4
2008	272	81	13	0

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

Data Charts

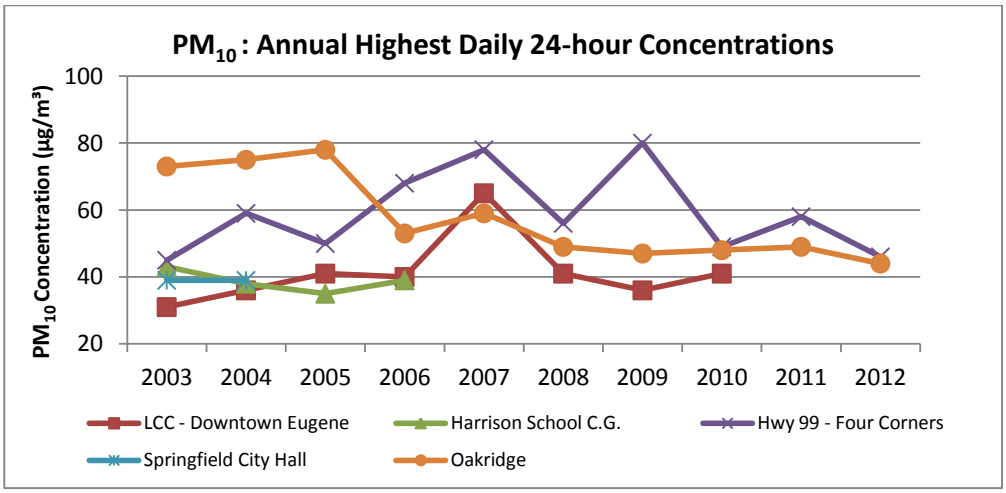
Particulate Matter Data – PM_{10}

EPA has designated the following National Ambient Air Quality Standards (NAAQS) for PM_{10}:

Level	Averaging Time	Description
150 µg/m^3	24-hour	Not to be exceeded more than once per year on average over 3 years.

24-hour Average PM_{10} Levels 2003 - 2012 (µg/m^3)

Site Name		2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
LCC–Downtown Eugene	Highest 24-hour	31	36	41	40	65	41	36	41	---	---
Harrison School Cottage Grove	Highest 24-hour	43	38	35	39	---	---	---	---	---	---
Hwy 99 - Four Corners	Highest 24-hour	45	59	50	68	78	56	80	49	58	46
Springfield City Hall	Highest 24-hour	52	39	---	---	---	---	---	---	---	---
Oakridge	Highest 24-hour	73	75	78	53	59	49	47	48	49	44



Data Charts

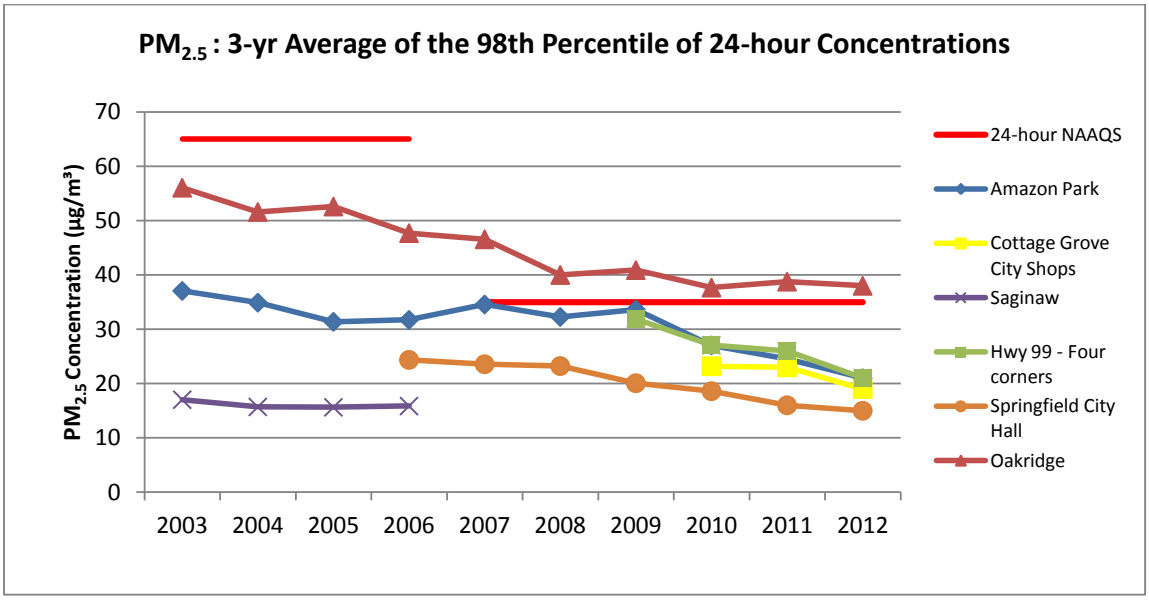
Particulate Matter Data – $PM_{2.5}$

EPA has designated the following National Ambient Air Quality Standards (NAAQS) for $PM_{2.5}$:

Level	Averaging Time	Description
12.0 µg/m^3	Annual (Arithmetic Average)	To attain this standard, the 3-year average of the annual mean PM2.5 concentrations from monitors must not exceed 12.0 µg/m^3 (effective December 14, 2012).
35 µg/m^3	24-hour	To attain this standard, the 3-year average of the 98th percentile of 24-hour concentrations must not exceed 35 µg/m^3 (effective December 17, 2006).

24-hour Average $PM_{2.5}$ Levels 2003 - 2012 (µg/m³)

Site Name		2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Amazon Park	Annual mean	9.0	8.7	9.1	8.3	7.4	7.8	8.5	5.8	6.5	6.4
	Highest 24-hour	39.5	37.9	39.6	43.3	43.0	40.0	59.9	21.0	24.6	31.6
	Annual 98th %-ile	30.7	27.8	35.6	31.8	36.3	28.7	35.9	16.5	21.2	25.4
	3 year 98th %-ile	**37**	**35**	**31**	**32**	**35**	**32**	**34**	**27**	**25**	**21**
Cottage Grove City Shops	Annual mean	---	---	---	---	---	8.1	8.5	6.9	7.1	6.7
	Highest 24-hour	---	---	---	---	---	31.8	33.6	21.1	32.1	24.7
	Annual 98th %-ile	---	---	---	---	---	21.1	30.2	18.3	20.4	17.0
	3 year 98th %-ile	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**23**	**23**	**19**
Saginaw	Annual mean	6.2	6.0	6.8	5.5	---	---	---	---	---	---
	Highest 24-hour	17.0	13.8	24.7	16.6	---	---	---	---	---	---
	Annual 98th %-ile	15.9	13.1	17.9	16.6	---	---	---	---	---	---
	3 year 98th %-ile	**17**	**16**	**16**	**16**	**---**	**---**	**---**	**---**	---	---
Hwy 99 - Four Corners	Annual mean	---	---	---	---	8.4	8.3	8.2	6.3	10.0	6.5
	Highest 24-hour	---	---	---	---	53.5	32.4	47.9	22.9	26.7	30.0
	Annual 98th %-ile	---	---	---	---	33.9	25.3	36.4	19.5	22.1	20.6
	3 year 98th %-ile	**---**	**---**	**---**	**---**	**---**	**---**	**32**	**27**	**26**	**21**
Springfield City Hall	Annual mean	---	7.8	8.0	7.4	6.8	6.9	6.8	5.8	5.6	5.5
	Highest 24-hour	---	21.0	32.1	30.2	38.6	32.3	21.9	17.9	18.8	18.3
	Annual 98th %-ile	---	20.8	24.5	27.8	18.4	23.5	18.3	14.0	14.8	15.3
	3 year 98th %-ile	**---**	---	---	**24**	**24**	**23**	**20**	**19**	**16**	**15**
Oakridge	Annual mean	12.3	12.0	12.8	11.1	10.5	11.5	11.0	8.9	10.0	7.6
	Highest 24-hour	69.0	69.3	73.0	47.0	52.5	43.5	44.1	43.1	47.9	49.9
	Annual 98th %-ile	53.3	46.1	58.4	38.6	42.7	38.7	41.3	33.0	42.0	38.4
	3 year 98th %-ile	**56**	**52**	**53**	**48**	**47**	**40**	**41**	**38**	**39**	**38**



Data Charts

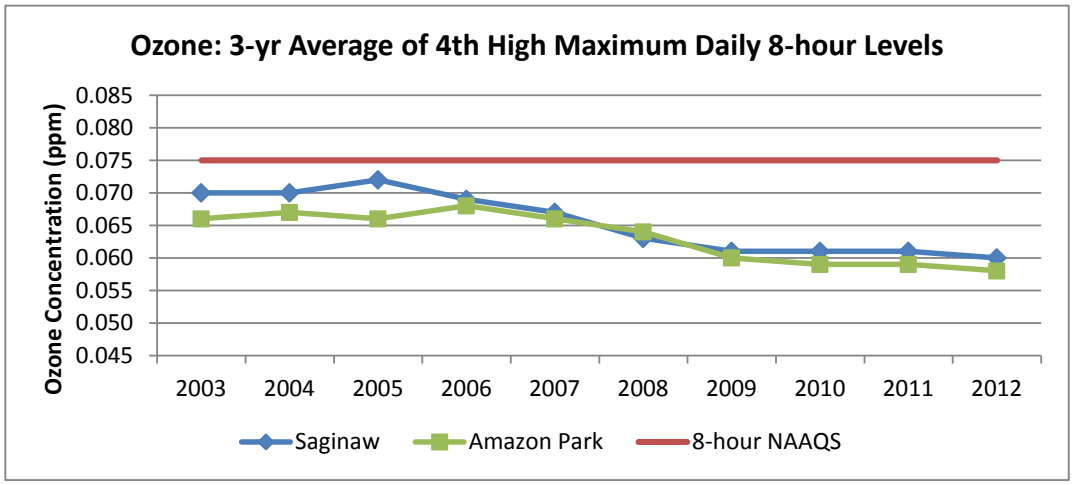
Ozone Data

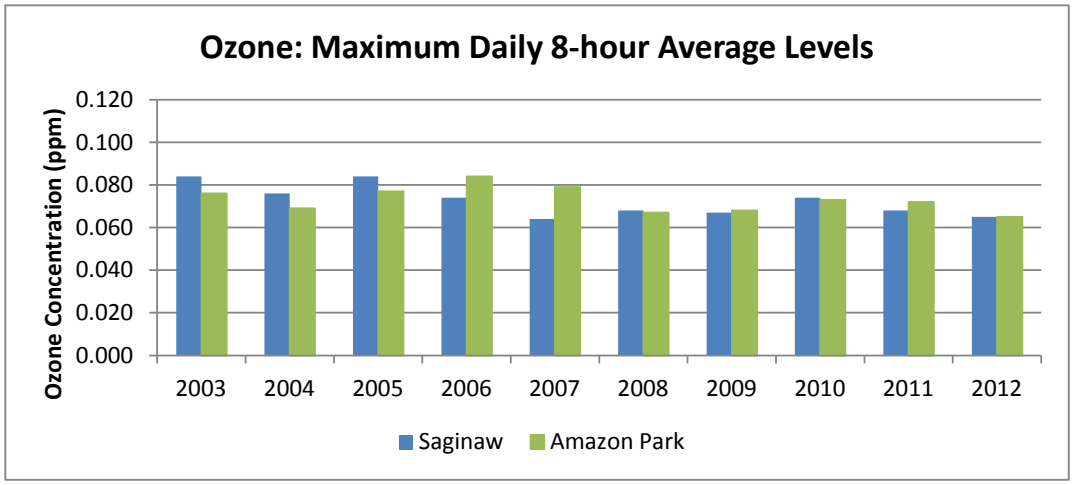
EPA has designated the following National Ambient Air Quality Standards (NAAQS) for Ozone:

Level	Averaging Time	Description
0.075 ppm	8-hour	To attain this standard, the 3-year average of the fourth-highest daily maximum 8-hour average ozone concentrations measured at each monitor within an area over each year must not exceed 0.075 ppm. (effective May 27, 2008)

8-hour Average Ozone Levels 2003 - 2012 (ppm)

Site Name		2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Saginaw	Maximum	0.084	0.076	0.084	0.074	0.064	0.068	0.067	0.074	0.068	0.065
	4th highest	0.079	0.068	0.071	0.070	0.060	0.059	0.066	0.060	0.059	0.062
	3-year 4th high	**0.070**	**0.070**	**0.072**	**0.069**	**0.067**	**0.063**	**0.061**	**0.061**	**0.061**	**0.060**
	# Exceedances	0	0	0	0	0	0	0	0	0	0
Amazon Park	Maximum	0.076	0.069	0.077	0.084	0.079	0.067	0.068	0.073	0.072	0.065
	4th highest	0.071	0.064	0.064	0.076	0.059	0.059	0.063	0.056	0.059	0.059
	3-year 4th high	**0.066**	**0.067**	**0.066**	**0.068**	**0.066**	**0.064**	**0.060**	**0.059**	**0.059**	**0.058**
	# Exceedances	0	0	0	0	0	0	0	0	0	0





Data Charts

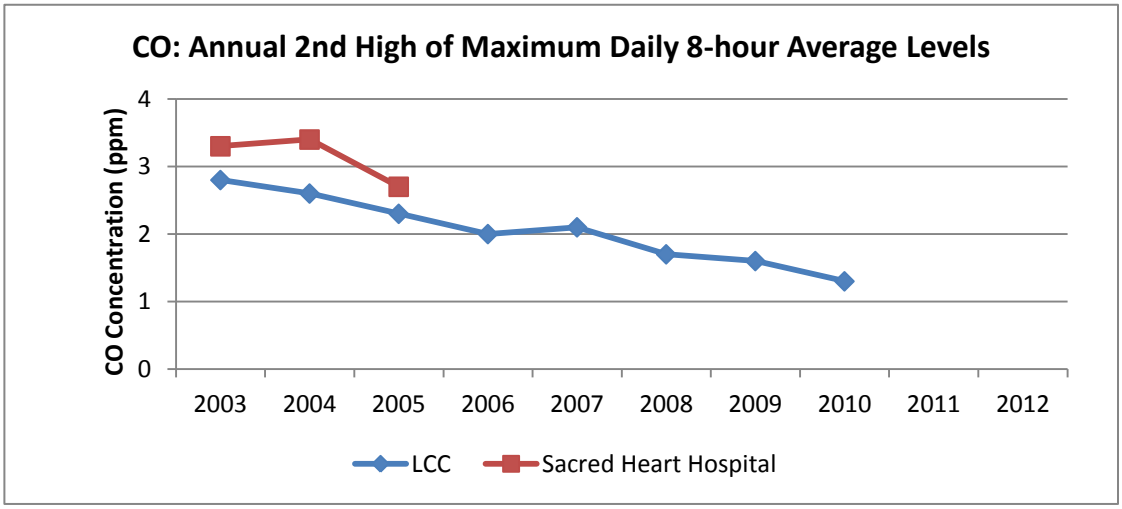
Carbon Monoxide Data *

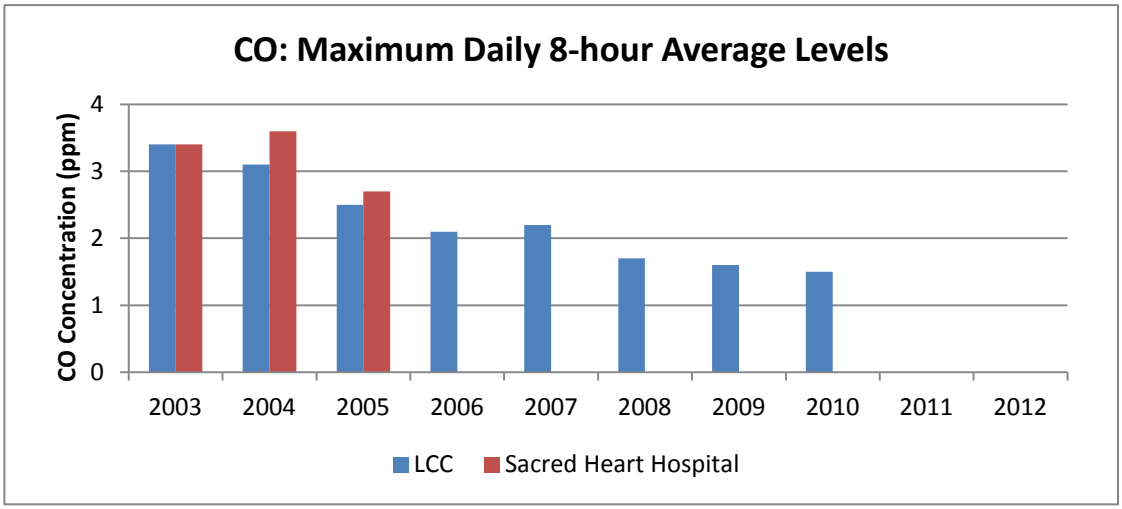
EPA has designated the following National Ambient Air Quality Standards (NAAQS) for CO:

Level	Averaging Time	Description
9 ppm	8-hour	Not to be exceeded more than once per year.
35 ppm	1-hour	Not to be exceeded more than once per year.

Carbon Monoxide (CO) Levels 2003 - 2012 (ppm)

Site Name		2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
LCC - Downtown Eugene	Highest 8-hour	3.4	3.1	2.5	2.1	2.2	1.7	1.6	1.5	---	---
	2nd high 8-hour	**2.8**	**2.6**	**2.3**	**2**	**2.1**	**1.7**	**1.6**	**1.3**	**---**	**---**
	# Exceedances	0	0	0	0	0	0	0	0	---	---
Sacred Heart Hospital	Highest 8-hour	3.4	3.6	2.7	---	---	---	---	---	---	---
	2nd high 8-hour	**3.3**	**3.4**	**2.7**	**---**	**---**	**---**	**---**	**---**	**---**	**---**
	# Exceedances	0	0	0	---	---	---	---	---	---	---





** Carbon monoxide monitoring is no longer required due to low concentration levels*