



LANE REGIONAL AIR PROTECTION AGENCY

2014

# Annual Report

Cover photo: LRAPA's new electric fleet vehicle, the Fiat e500, drives through Ernest Bridge in Marcola. There are 20 covered bridges in Lane County.

Inside cover: LRAPA mission, vision, and goals.

### Our Vision

Community partners working together to ensure clean air for everyone

### Our 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

### Our Goals

#### Air Quality

Ensure healthful air quality for all Lane County citizens.

#### Involvement

Inform and involve citizens and businesses in improving air quality.

#### Service

Serve citizens and other stakeholders fairly, courteously, and in a timely manner.

#### Partnerships

Work with our partners to leverage resources to make a difference in local air quality.

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### Contact Us

Business Office.....541-736-1056

Home Wood Heating  
Advisory Line.....541-746-HEAT

Home Wood Heating  
Burn Ban Text Alert....Text "LRAPAHWH" to 313131

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

Fax.....541-726-1205

Website.....www.lrapa.org

E-mail.....lrapa@lrapa.org

### ADMINISTRATION & PLANNING

**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 including hiring.

### OPERATIONS

**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.

### 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.

### TECHNICAL SERVICES

**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.

### AIR METRICS

Manufactures and markets portable air-sampling devices and services.



# Letter from the Director

Dear Community Members:

The Lane Regional Air Protection Agency (LRAPA) made significant strides in 2014. Our vision is “community partners working together to ensure clean air for everyone.” How do we ensure that our past progress continues into the future? Let’s take some of our clean-air strategies apart and talk about: cleaner industry, cleaner transportation, cleaner power, and cleaner homes.

**Cleaner Industry.** The federal Clean Air Act has been in effect almost as long as LRAPA. The first Clean Air Act was passed by Congress and signed by President Nixon in 1970, and the U.S. Environmental Protection Agency (EPA) was established to oversee it. LRAPA was formed a couple years earlier in 1968. The Clean Air Act was revised in 1977 and again in 1990. A major focus of the Clean Air Act has been and continues to be the control of industrial emissions.

Some state and local air agencies can be more restrictive than the federal requirements, especially when needed to meet or maintain air quality standards in difficult airsheds. In some cases, restrictive local limits can further tighten even the most stringent limits, referred to as Lowest Achievable Emission Rates (LAER), since LAER is based on the lowest emission limits established by any permit in the country.

This was the case recently in the LRAPA region with the Seneca Sustainable Energy co-generation facility near Eugene. The emission controls on this facility, including a 4-field electrostatic precipitator and other control equipment, are the best in the country and the permit limits are the most stringent. These permit limits now establish LAER for any facility of this type constructed in a similar situation in the U.S. Seneca’s permit raises the bar for heightened control requirements and lowers the amount for allowable emissions.

**Cleaner Transportation.** Another major focus of the Clean Air Act is transportation, requiring progressively cleaner vehicles and cleaner fuels over time. New vehicles today are over 90% cleaner than in the 1970s. Cleaner transportation is an important part of the progress to meet the air quality health standards for carbon monoxide and ozone.

We are on the tipping point of major advances in clean fuels development in Oregon. Most of our gasoline and diesel is imported, sending \$6 billion per year out of state. Even though Oregon has no refineries, we have homegrown low carbon fuel producers; such as, biofuel producers, feedstock producers, and an expanding electric vehicle industry. The West Coast Electric Highway in Oregon-Washington is the envy of many other states. Opportunities exist for investments in propane, natural gas and other innovative fuels. We have only scratched the surface of the potential clean fuels industry in Oregon that can help improve air quality, provide living wage family jobs, and recapture a portion of the billions of fuel dollars going out of state.



*“We are on the tipping point of major advances in clean fuels development in Oregon”*

cleaner transportation at event booths and as an example as we drive around the county.

But the number of vehicles and amount of traffic continues to increase over time. As a result, metropolitan areas throughout Oregon are planning and coordinating regional and state strategies to reduce congestion and improve operation of the transportation systems, better our air quality and public health, and reduce household energy and transportation costs. These strategies include combinations of efforts to make walking and cycling more convenient, promote compact and mixed use development, expand public transit, provide incentives and price signals to promote options, and better manage parking. In 2011, the Oregon Land Conservation and Development Commission (LCDC) adopted greenhouse gas emission reduction targets to guide scenario planning by the state’s metropolitan areas; LCDC committed itself to review those targets in 2015, and LRAPA is currently participating in that review.

**Cleaner Power.** Last year, EPA proposed the Clean Power Plan under its authority in the Clean Air Act. The EPA proposal has been controversial, with strong arguments in both support and opposition. LRAPA has worked with the National Association of Clean Air Agencies (NACAA) to offer advice to EPA on the carbon reduction plans for electrical generating facilities. NACAA has recommended a set of principles that EPA follow in promoting energy efficiency in the upcoming climate action plans. By recognizing the significant emission reductions that are achievable through energy efficiency, EPA will enable states to design the most cost-effective climate compliance plans.

**Cleaner Homes.** Wood has historically been an important energy component for heating Oregon homes. However, by its nature wood combustion (or any other solid fuel burning) is not as clean as electric heat pumps, or natural gas and propane furnaces for heating homes. LRAPA continues to work with local communities and citizens to reduce the smoke impacts from home wood heating using three broad approaches: cleaner burning units, improved burning practices, and avoiding wood burning entirely during stagnant air episodes.

Although, wood burning is popular in Lane County, the city of Oakridge is our only non-attainment area for failing to meet particulate matter standards. 2014 proved to be another challenging year as together we tried to improve the city’s airshed. Looking forward, LRAPA has developed stronger partnerships with the city, US Forest Service, SW Forest Collaborative, and other local agencies to help tackle the problem and come up with new strategies.

With these and other strategies, we work with you to fulfill our mission “for the continuous improvement of air quality in Lane County.”

A handwritten signature in black ink that reads "Merlyn Hough". The signature is fluid and cursive, with the first name being the most prominent.

Merlyn Hough, P.E.,  
Director

# Board of Directors

2014

Mike Fleck - Chair  
At-Large

Jeannine Parisi - Vice Chair  
Eugene

Bill Brommelsiek  
At-Large

Claire Syrett  
Eugene

Dave Ralston  
Springfield

Glenn Fortune  
Oakridge/Cottage Grove

Jay Bozievich  
Lane County

Joe Gonzales  
Eugene

Scott Lucas  
Eugene

The LRAPA 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.

# Citizens Advisory Committee

2014

Maurie Denner - Chair  
10 years service, General Public

Chuck Gottfried  
6 years service, Agriculture

Gary Vander Meer  
12 years service, General Public

Hugh Larkin II  
8 years service, General Public

Jim Daniels  
5 years service, Large Industry

John Tamulonis  
17 years service, Planning

Larry Dunlap  
16 years service, Public Health

Laura Seyler  
4 years service, Large Industry

Link Smith  
6 years service, Fire Suppression

Paul Engelking  
17 years service, General Public

Randy Hledik  
4 years service, Industry

Russ Ayers  
15 years service, General Public

Terry Richardson  
1 year service, General Public

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 variety of air quality issues, rules, and policies.

# LANE REGIONAL AIR PROTECTION AGENCY

The Lane Regional Air Protection Agency (LRAPA) is committed as a community partner working toward ensuring clean air for Lane County citizens. Through its mission and goals, the agency acts upon its commitment to its community partners.

## Air Quality

Since its inception in 1968, LRAPA has strived to make continued air quality improvements in Lane County. Even with increased traffic and population, air quality levels in Lane County's metro areas have continued to improve. The Eugene/Springfield metro area meets all federal clean air health standards (National Ambient Air Quality Standards) with help from LRAPA to administer state regulation and local mandatory and voluntary programs.

The improvements are evidenced by data collected by LRAPA. LRAPA's air quality monitoring network consists of 7 monitoring sites that include a total of 51 parameters. At an estimated operational cost of over \$400,000 per year, LRAPA's network provides Lane County with comprehensive data on local air quality. The network includes three locations in Eugene and one each in Springfield, Oakridge, Cottage Grove, and Saginaw.

## Involvement

LRAPA places strong emphasis on community involvement and public education. To LRAPA, involvement means participating in projects for the good of the area, in addition of fulfilling its regulatory responsibilities to its partners, and informing the public

with accurate and timely information. LRAPA's Board of Directors guarantees local regulatory involvement through Board direction and guidance, and a local decision-making process similar to city and county governance over their jurisdictions. Fourteen local citizens comprise the agency's Citizens Advisory Committee, which provides input and recommendations to the LRAPA Board and agency staff. Our commitment to the local community is demonstrated by our development of community projects, outdoor school programs, and outreach events.

Community-building results when an agency such as LRAPA gets involved with its constituents. Local government contributions help secure the funding that is necessary to establish true involvement - an agency with open doors to its public, where staff strive for one-on-one solutions with local citizens, and where the executive director is just a phone call or an office visit away.

To further community involvement and outreach, LRAPA has expanded its online presence in 2014. With the renovation of a new website, new social media outlets, and text-message notifications, LRAPA continues to increase the accessibility to and availability of information for all users.

## Service

A service organization serves its community, not unlike a government agency should serve its constituents. Whether it be the general public looking for help to solve an odor problem, a

***“LRAPA responds to an average of 800 backyard burning, home wood heating, dust, agricultural, and industrial complaints throughout Lane County each year.”***

permitted facility needing regulatory support, or an “out-of-towner” looking to relocate to our community, LRAPA believes personalized attention is prudent for success. This can be seen in LRAPA's repeated high marks in its customer service surveys, as reported by LRAPA's Citizens Advisory Committee. When asked about LRAPA's service, overwhelmingly respondents gave staff high marks for respectfulness, courteousness, helpfulness, timeliness, and overall service.

Without a strong sense of service, LRAPA could not adequately respond

to the numerous complaints it receives yearly.

Over the last few years, LRAPA responded to an average of 800 backyard burning, home wood heating, dust, agricultural burning and industrial complaints throughout Lane County. LRAPA services the community at-large by giving personal attention whenever possible to city and county staff, local schools, area businesses, the

regulated community and the general public. The agency strives to give all members of the community equal time and access.

## Partnerships

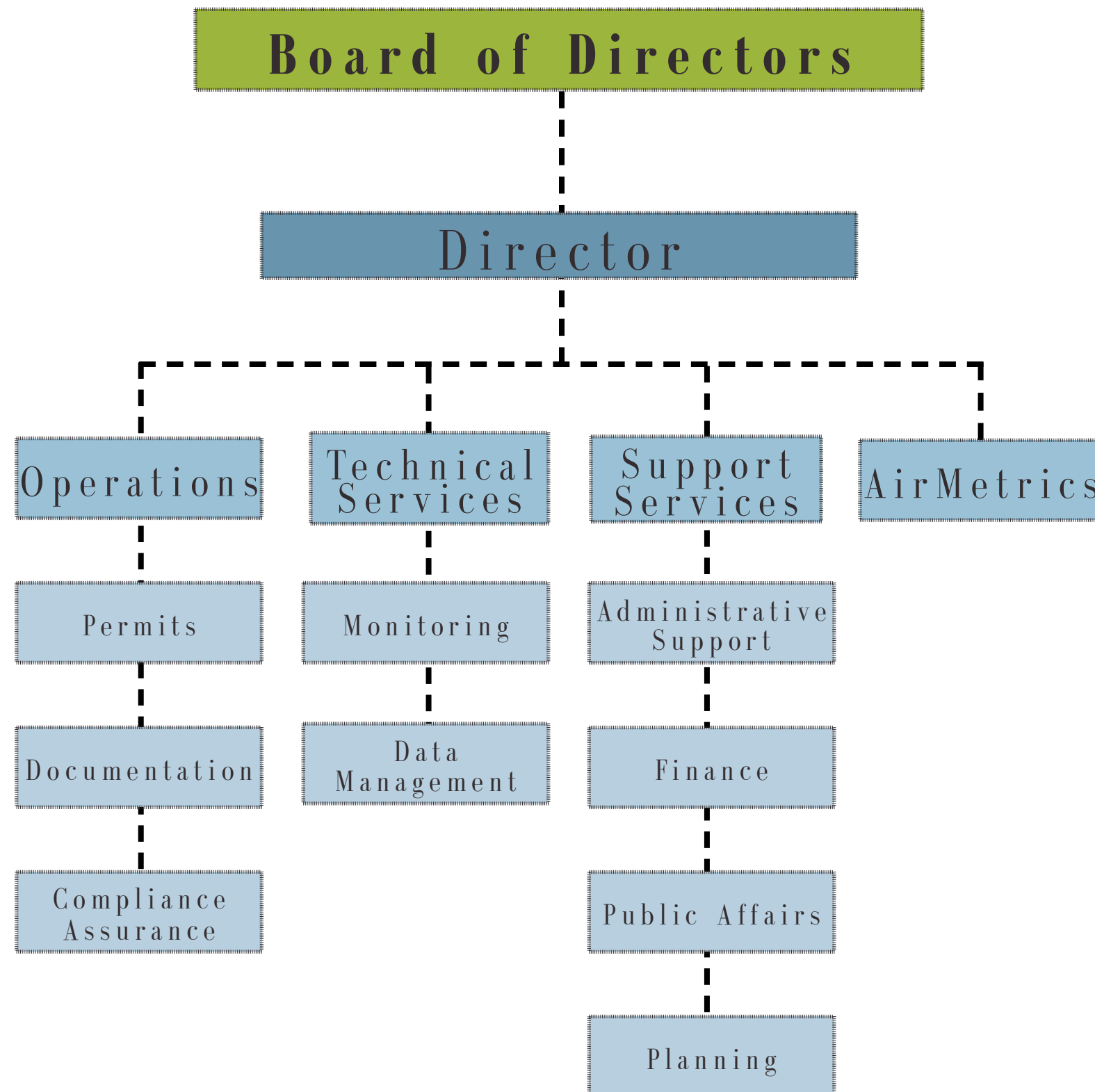
Partnerships are a mainstay for LRAPA. Through partnerships, the agency has made enormous strides toward education and emissions reductions. LRAPA's partnerships are instrumental in educating the community not

only about air quality, but about water quality, energy use and overall sustainability as well. Through recent partnerships, LRAPA has helped bring more than \$5 million in funding for cleaner fuels, safer school buses, and woodstove change-outs, to reach beyond our core work in helping the local airshed, community well-being and environment.



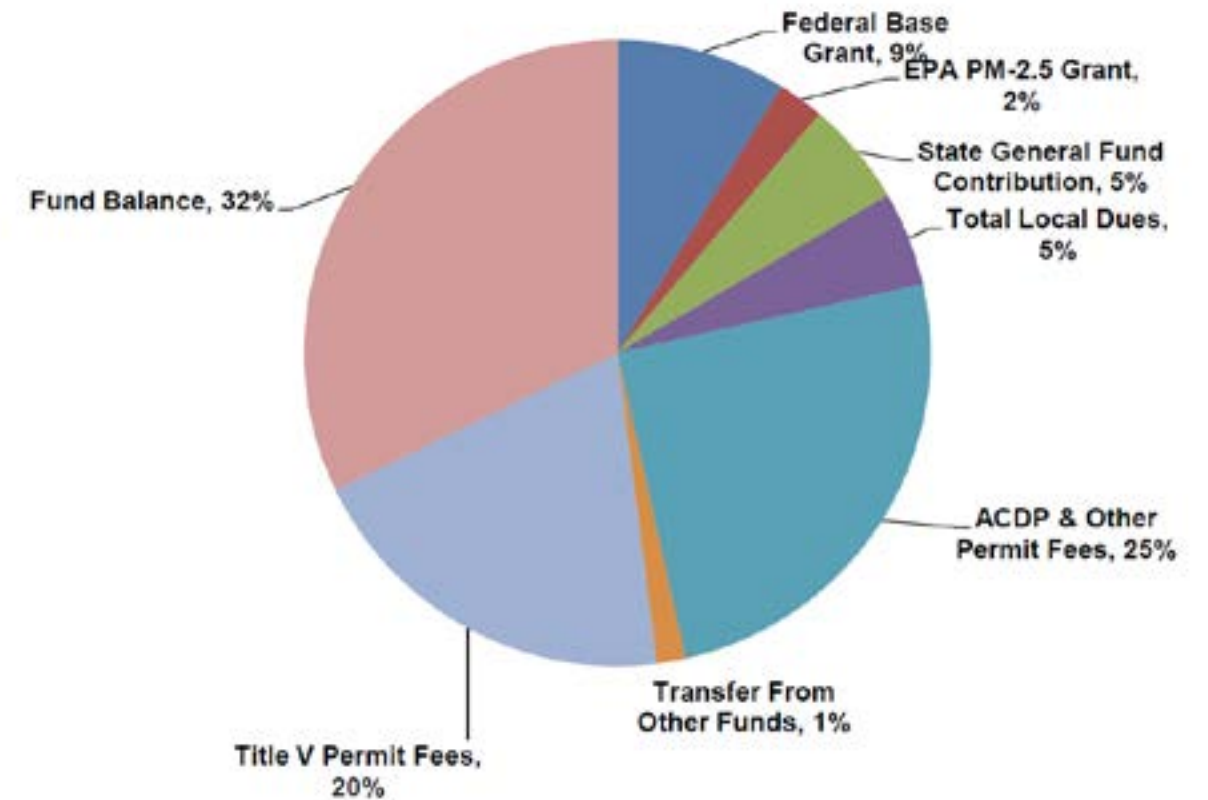
LRAPA strives to improve air quality for all Lane County residents.

## Organization Chart



## LRAPA Core Operating Budget Resources FY'14

\$2,696,650



# Funding and Budget

LRAPA's budget process is reviewed and determined by the LRAPA Budget Committee. This process begins in February each year with a new budget prepared by LRAPA's chief financial officer of the agency and budget committee meetings are held during March and April. These meetings are open to the public, and serve as a transparent process for the agency's fiscal policies and responsibilities. Once the committee makes final revisions to the proposed budget, a vote is taken to approve the budget. Once approved, the budget is published and a public hearing is scheduled. Citizens may give testimony at the public hearing. Comments from the public are taken into consideration by the LRAPA Board of Directors before a resolution is enacted to formally adopt the budget.

In the past several years, LRAPA has experienced reduced revenues as the result of decreased funding at the local, state, and federal levels. The agency has responded by reducing staff and cutting certain programs to focus on core responsibilities. This year, with the institution of a reserve policy and the recovery of a portion of the lost local funds, LRAPA has been able to expand operations to include some pre-recession activities such as Air Toxics Monitoring.

Even through funding challenges, LRAPA has been very successful in its mission to advocate for the continuous improvement of air quality in Lane County. Our airshed has improved significantly and this trend is expected to continue because of LRAPA's unwavering commitment and efforts to deliver on its mission.

# Permitting

LRAPA-issued operating permits are required for a number of industries and businesses in Lane County.

Of the 315 permitted sources in Lane County, 297 have Air Contaminant Discharge Permits (ACDP), and 18 hold Title V Federal Operating Permits. Gasoline dispensing facilities (GDFs) account for 34% of the ACDPs (i.e., 104 GDFs out of 297 ACDPs).

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.

2014 Permitting Summary		
Permits Issued/Renewed	Permits Modified	Industries Inspected
26	39	93

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, failure to obtain necessary air pollution permits prior to construction or operation, and exceeding opacity limits from woodstoves and chimneys.

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. Penalty money collected by LRAPA is transferred to the Lane County general fund.

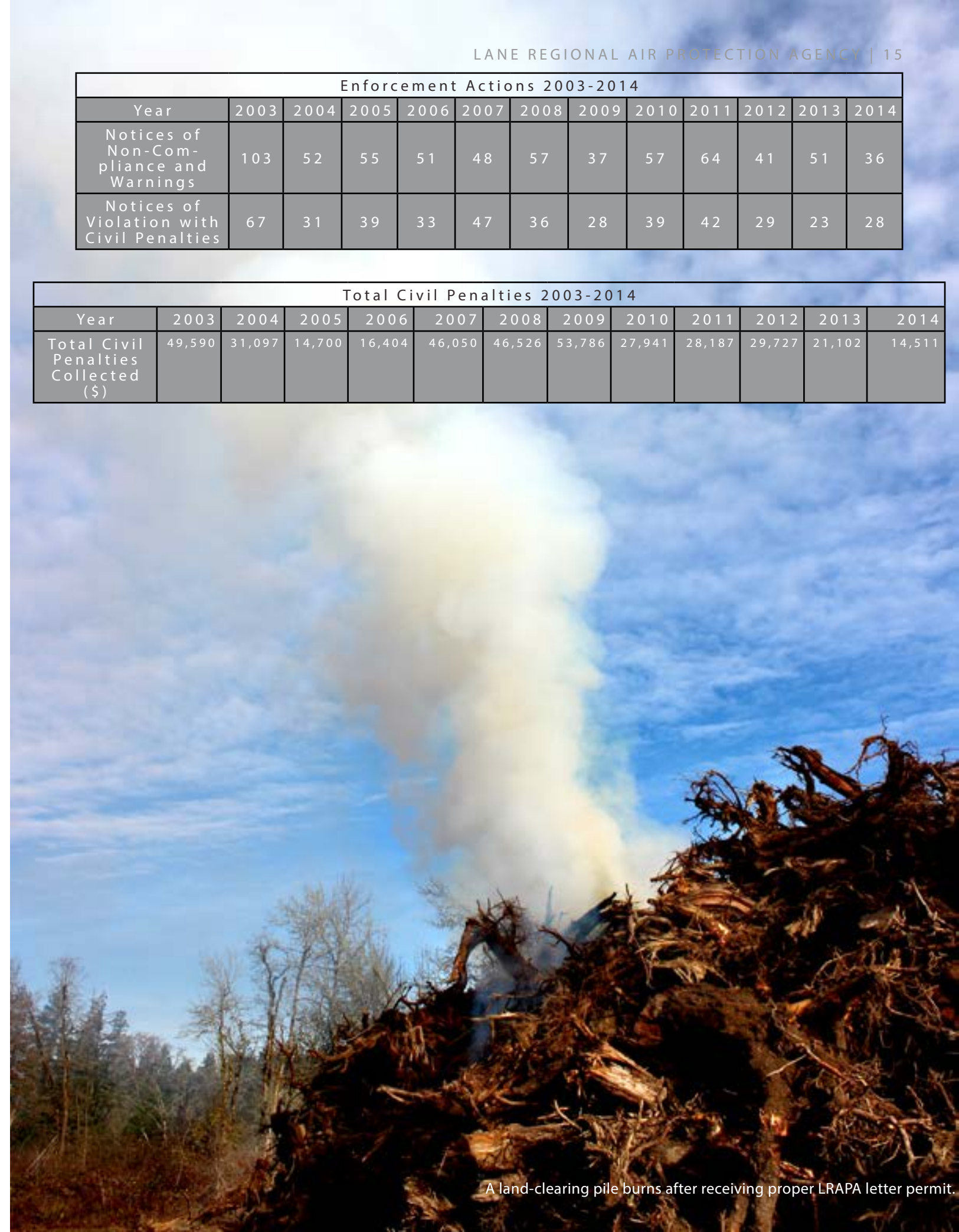
LRAPA collected \$14,511 in penalties during 2014. All penalties collected are forwarded to the Lane County general fund; however, attorney fees associated with contested cases are deducted first. In 2014, LRAPA issued 36 administrative Notices of Non-Compliance and 28 notices of violations with civil penalties.



An LRAPA enforcement officer examines a woodstove stack with neighbors in Oakridge.

Enforcement Actions 2003-2014												
Year	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Notices of Non-Compliance and Warnings	103	52	55	51	48	57	37	57	64	41	51	36
Notices of Violation with Civil Penalties	67	31	39	33	47	36	28	39	42	29	23	28

Total Civil Penalties 2003-2014												
Year	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Total Civil Penalties Collected (\$)	49,590	31,097	14,700	16,404	46,050	46,526	53,786	27,941	28,187	29,727	21,102	14,511



A land-clearing pile burns after receiving proper LRAPA letter permit.





Swanson Mill during asbestos abatement after the July 2014 fire.

# Asbestos Abatement

LRAPA's Asbestos Permit and Inspection Program handles hundreds of abatement notices per year. In order to legally remove asbestos, an asbestos survey must be conducted by an accredited inspector prior to commencing a building demolition or remodel. Proper permitting notice needs to be filed and removal or abatement done following criteria outlined in the regulations. The LRAPA asbestos regulations (Title 43) specify work practices regarding asbestos to be followed during demolitions and renovations of all structures, installations, buildings, and residential properties with certain exemptions as outlined in 43-015-8.

The regulations require the owner or the operator of the building to have all materials abated by a licensed abatement contractor prior to any demolition or renovations of buildings that contain more than 1% of asbestos or asbestos-containing material. In addition, particular manufacturing and fabricating operations cannot emit visible emissions into the outside air and must follow air cleaning procedures, as well as follow certain requirements when removing asbestos-containing waste.

2014 Asbestos Notices	
Schools	21
Residence	194
College	31
Industry	16
Commercial	76
Other	14
<b>Total</b>	<b>352</b>
2014 Asbestos Inspections	
<b>Total</b>	<b>67</b>
2014 Asbestos Fees Received	
<b>Total</b>	<b>\$138,338.50</b>



LRAPA employees visit the Eugene City Hall asbestos abatement site.



Proper asbestos abatement equipment.

# Complaint Response

LRAPA investigates citizen complaints whenever one is registered with the agency. People are able to submit complaints online on our website, over the phone, or through email. Each year, our office receives hundreds of complaints ranging from agriculture to residential to industry. Aside from the formal complaints, LRAPA also receives community inquiries, informal notifications, and agency requests. In 2014, our office received 674 formal complaints, a 17.8% decrease from 2013.

The majority of complaints from 2014 involve smoke emissions from open burning and residential wood heating. Complaints about industry increased slightly from 2013 with just a handful of additional complaints. Overall, industrial complaints have been decreasing in the past eleven years. LRAPA works hard to respond to every complaint received and provide solutions to resolve the sources of these complaints. The success of our complaint program is reflected in the steady decrease of complaints throughout the years.

Percent Change from 2013 to 2014	
Dust	-53%
Ag/Field Burning	-77%
General Air Quality	+15%
Home Wood Heating	-45%
Industry	+4%
Miscellaneous	+10%
Open Burning	-13%
Slash Burning	+40%
Unknown	+150%
<b>Total</b>	<b>-17.8%</b>

Photos of illegal trash burns in Lane County.  
(Bottom Left and Bottom Right)



LRAPA Complaints 2003-2014												
Year	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Dust	15	17	35	33	6	21	21	34	33	44	30	14
Ag/Field Burning	96	103	330	576	341	101	24	9	13	1	17	4
General Air Quality	6	2	8	7	63	14	21	2	6	6	26	30
Home Wood Heating	71	82	80	89	82	130	113	62	135	95	219	121
Industry	530	880	768	465	327	231	270	265	169	128	122	127
Miscellaneous	32	66	75	95	109	137	61	77	101	79	52	57
Open Burning	90	163	179	169	390	293	277	268	341	268	321	279
Slash Burning	9	8	31	41	33	25	3	5	16	7	5	7
Unknown	103	110	97	105	124	59	25	12	25	17	14	35
<b>Total</b>	<b>1056</b>	<b>1525</b>	<b>1719</b>	<b>1643</b>	<b>1496</b>	<b>1011</b>	<b>815</b>	<b>734</b>	<b>839</b>	<b>645</b>	<b>806</b>	<b>674</b>

# Public Education

The Public Affairs office of the Lane Regional Air Protection Agency provides a number of services to the agency including media relations, communications, public education, and outreach. The department's priorities are determined by need, urgency, and value.

Public Affairs staff believes its main focus is two-fold: to educate the community about air quality issues affecting the local jurisdiction; and to provide information to the community, be it through press releases and media relations, neighborhood groups, electronic communications, advertising campaigns, or other similar information avenues.

Over the past years, the program has evolved from one focused on media relations, mandatory program outreach to the community, with newsletters, brochures, and direct-mailings, to the more dynamic program it is today. It involves multi-agency partnerships and voluntary educational efforts outside the agency's mandates.

the LRAPA website also began the process to remodel and re-design. The new website and additional social media sites will boost LRAPA's online presence and accessibility for the public.

Twenty-two years ago, the program largely centered around two LRAPA programs: open burning and home wood heating. It was encompassed of a monthly print newsletter, fire department newsletter, print ad campaigns, and educational materials. In the last decade, the LRAPA Public Affairs office has evolved to increase scope and depth of its programs to include: website design and management; anti-idling campaigns targeting schools; summertime air quality campaigns; school outreach; diesel education; community events-planning (community hazardous waste collections, Earth Day, and similar events); special project development (such as the supplemental environmental projects); interagency partnerships (such as Warm Homes); print and electronic design; and multi-media.

The Public Affairs department conducted 55 media interviews in 2014. Their audience also expanded to people at outreach and education events including: Lane County Home and Garden Show, Earth Day, Transportation Expo, Earth Day, and more. LRAPA public education also expands to outdoor school, K-12 science classrooms, and college courses.

The summer of 2014 involved multiple media-heavy events like the Swanson Mill fire and asbestos contamination and the Deception Creek Wildfire. After multiple media spots, press releases, reports, and public meetings- the LRAPA Public Affairs decided to issue a quarterly

e-newsletter to recap the season's events and agency news.

As the public's sources for news become more digital, LRAPA is following the same trends to provide people with the most accurate information as quickly as possible.

## *New in 2014:*

- Quarterly Newsletter
- Website Redesign
- Social Media Platforms

## *55 media interviews in 2014*

In 2014, the LRAPA's public outreach expanded by adding social media platforms on Facebook and Twitter. Both sites have been gaining a steady audience and allows for the public to communicate with LRAPA on another level. To increase the efficiency of their web presence,



A young participant grabs coloring books at LRAPA's booth during the Science Factory's Transportation Expo, Oct 2014.



Top Left: LRAPA joins the USFS at a public meeting in Oakridge, Aug 2014. Top Right: LRAPA and the EPA perform garden soil tests in West Eugene, Oct 2014. Middle: LRAPA's electric vehicle at the BRING Home and Garden Tour, Sept 2014.

Bottom Left: LRAPA Public Affairs charging the electric car in Springfield, June 2014. Bottom Right: LRAPA employee at the BRING Home and Garden Tour, Sept 2014.

# Technical Services

LRAPA's air quality monitoring network consists of seven monitoring sites that measure a total of 51 parameters. The agency collects over 300,000 hours of pollutant-related data per year. At an estimated operational cost of \$400,000 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 fewer hours of data collection.

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

Monitoring stations have special instruments to measure the amount of specific pollutants in the air. Using information from the monitors, it can be determined whether the air is healthy or unhealthy for people.

LRAPA measures particulate matter at five sites in Lane County: west Eugene, south Eugene, downtown Springfield, Cottage Grove and Oakridge. Particulate matter is measured using two methods. The first method uses a filter that captures particles. The filters are weighed to determine how much pollution is contained in each cubic meter of air that has been drawn into the sampler. The second method measures particles with a nephelometer, which uses a light beam and light detector. Light reflected from the particles determines the concentration of particles in the air.

LRAPA measures ozone concentrations at Amazon park in South Eugene and in Saginaw, near Cottage Grove. To determine ozone levels, a pump brings an air sample into equipment that uses ultra-violet light and a two-step process that calculates the amount of ozone in the sample.

Real-time air quality monitoring data can be accessed on the LRAPA website: <http://mdas.lrapa.org/>

(Below is a map of all the monitoring and meteorology sites.)

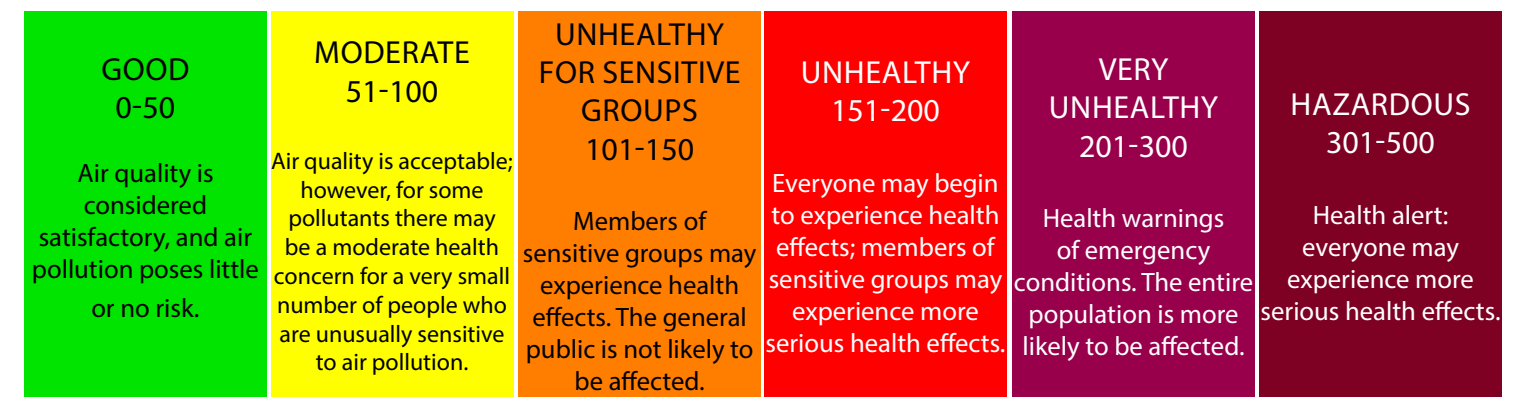


Top: LRAPA Air Monitor Station at Amazon Park  
Bottom: LRAPA Field Technician explains monitoring equipment.

# 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](http://www.lrapa.org), displays the current AQI information for Eugene/Springfield, Oakridge, and Cottage Grove 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 on our website including: data summary, AQI for the last 45 days, monitoring site map, and data graphing.



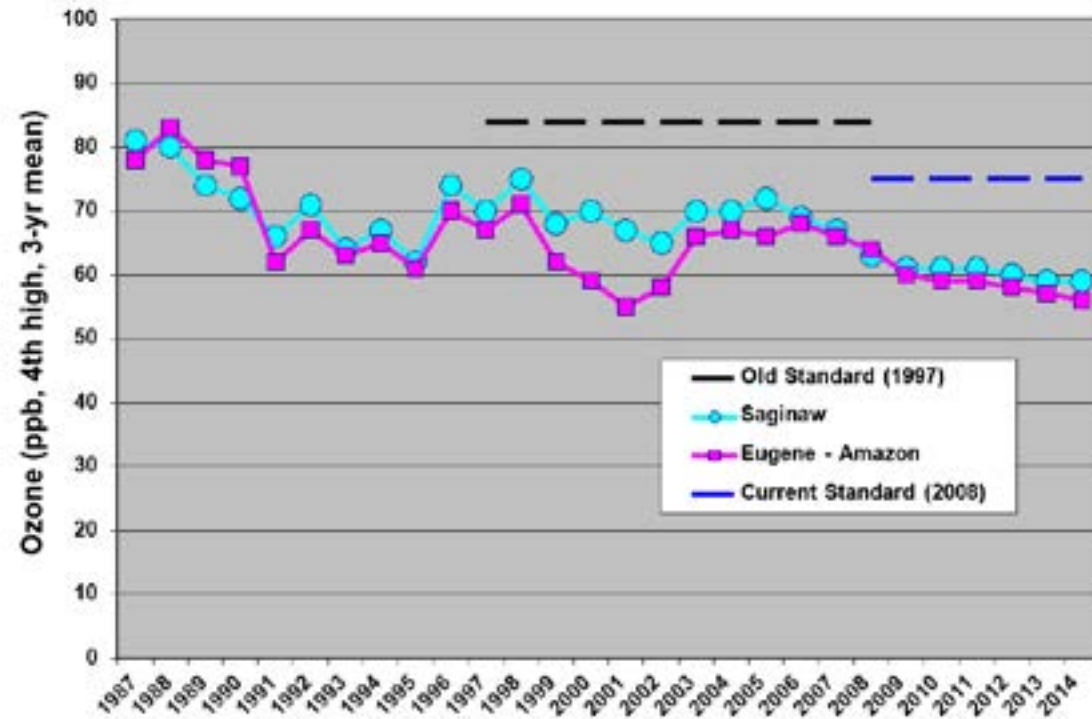
Air Quality Index Summary				
Eugene/Springfield (Number of Days)				
Year	Good	Moderate	USG	Unhealthy
2014	310	51	4	0
2013	284	69	11	1
2012	308	58	0	0
2011	329	39	0	0
2010	347	18	0	0
2009	321	35	8	1

Air Quality Index Summary				
Oakridge (Number of Days)				
Year	Good	Moderate	USG	Unhealthy
2014	272	81	11	1
2013	274	77	13	0
2012	308	43	7	0
2011	299	53	12	0
2010	303	49	4	0
2009	282	59	20	4

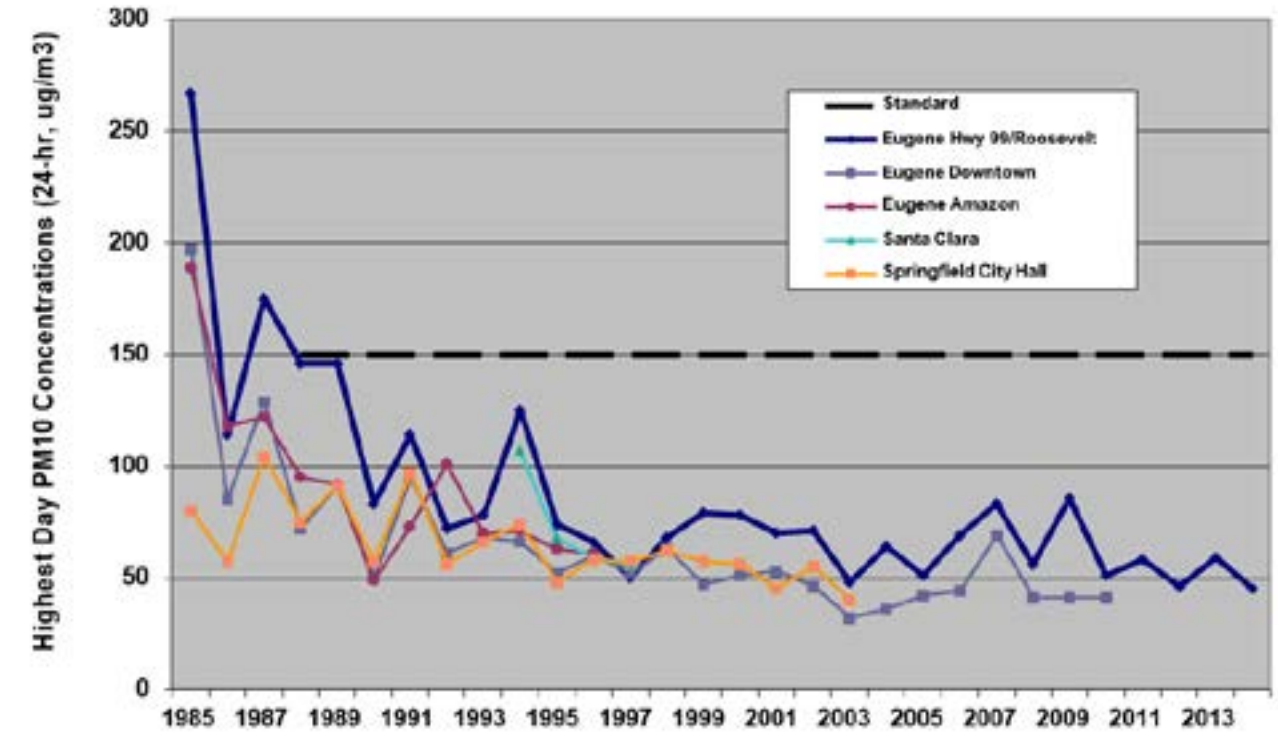


# Long Term Trends

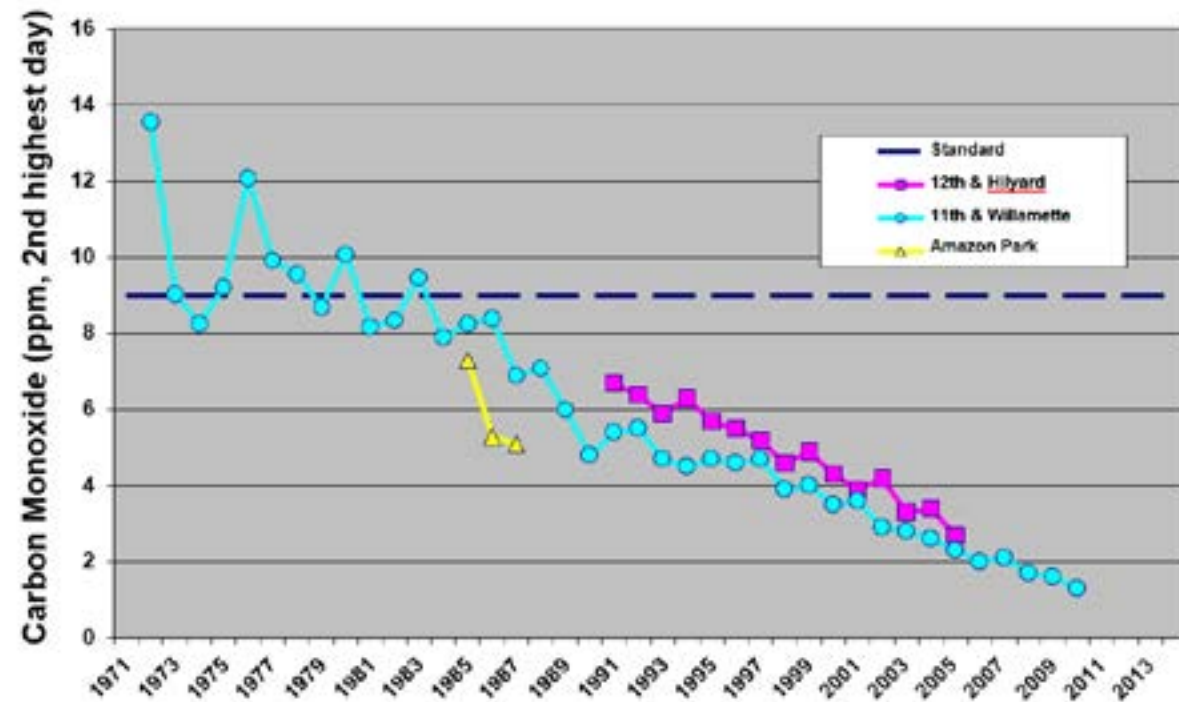
### Ozone in Lane County



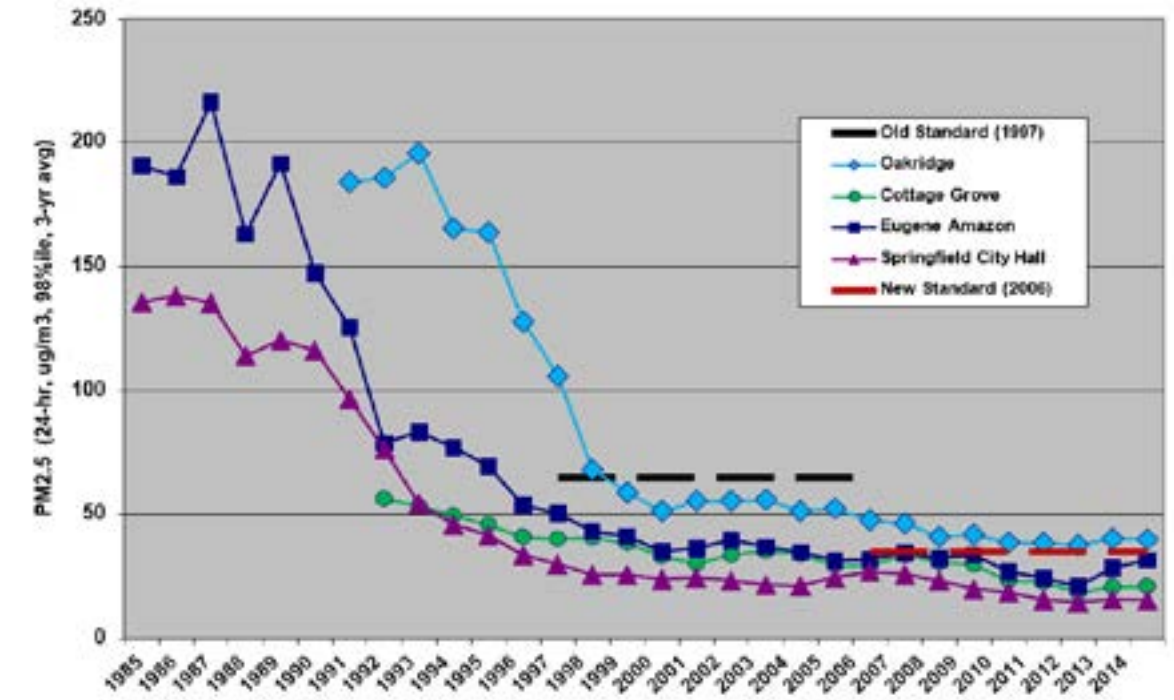
### Inhalable Particulate Matter (PM10) in Eugene-Springfield



### Carbon Monoxide in Eugene



### Respirable Particulate Matter (PM2.5) in Lane County

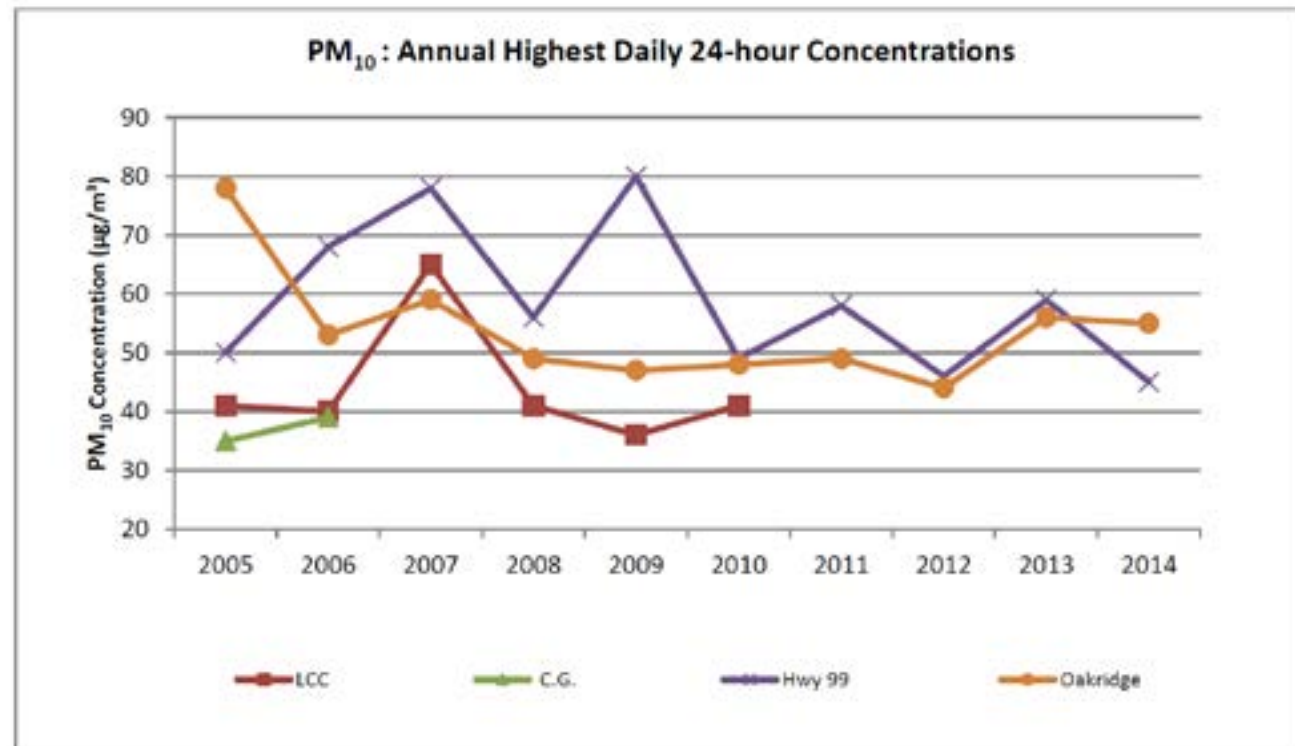


# Particulate Matter Data - PM<sub>10</sub>

EPA has designated the following National Ambient Air Quality Standards (NAAQS) for PM<sub>10</sub>

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

24-HOUR AVERAGE PM <sub>10</sub> LEVELS 2005 - 2014 (µg/m <sup>3</sup> )											
Site Name		2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
LCC-Downtown Eugene	Highest 24-hour	41	40	65	41	36	41	---	---	---	---
Harrison School Cottage Grove	Highest 24-hour	35	39	---	---	---	---	---	---	---	---
Hwy 99 - Four Corners	Highest 24-hour	50	68	78	56	80	49	58	46	59	45
Oakridge	Highest 24-hour	78	53	59	49	47	48	49	44	56	55

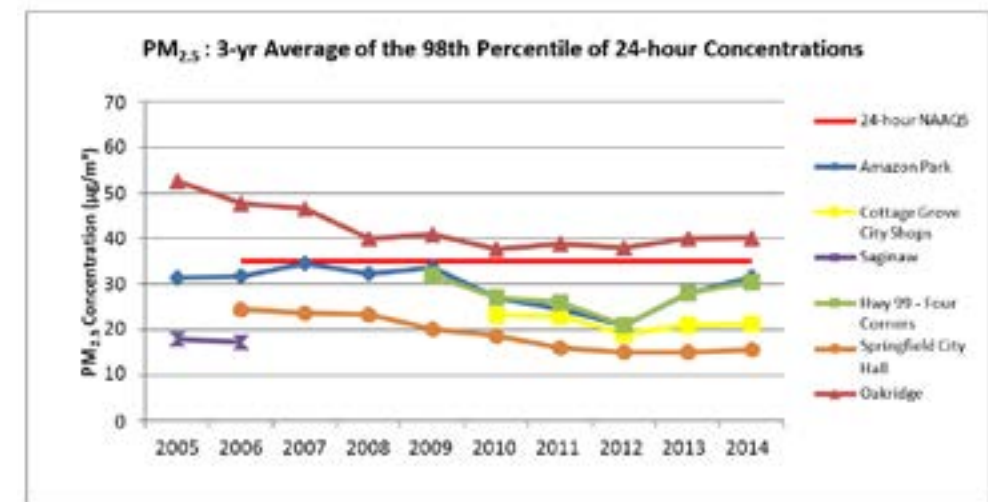


# Particulate Matter Data - PM<sub>2.5</sub>

EPA has designated the following National Ambient Air Quality Standards (NAAQS) for PM<sub>2.5</sub>

Level	Averaging Time	Description
12.0 µg/m <sup>3</sup>	Annual (Arithmetic Average)	To attain this standard, the 3-year average of the annual mean PM <sub>2.5</sub> concentrations from monitors must not exceed 12.0 µg/m <sup>3</sup> (effective December 14, 2012).
35 µg/m <sup>3</sup>	24-hour	To attain this standard, the 3-year average of the 98th percentile of 24-hour concentrations must not exceed 35 µg/m <sup>3</sup> (effective December 17, 2006).

24-HOUR AVERAGE PM <sub>2.5</sub> LEVELS 2005 - 2014 (µg/m <sup>3</sup> )											
Site Name		2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Amazon Park	Annual mean	9.1	8.3	7.4	7.8	8.5	5.8	6.5	6.4	7.8	7.2
	Highest 24-hour	39.6	43.3	43.0	40.0	59.9	21.0	24.6	31.6	51.9	35.5
	Annual 98 <sup>th</sup> %ile	35.6	31.8	36.3	28.7	35.9	16.5	21.2	25.4	38.6	30.7
	3 year 98 <sup>th</sup> %ile	31	32	35	32	34	27	25	21	28	32
Cottage Grove City Shops	Annual mean	---	---	---	8.1	8.5	6.9	7.1	6.7	7.5	7.0
	Highest 24-hour	---	---	---	31.8	33.6	21.1	32.1	24.7	38.1	34.0
	Annual 98 <sup>th</sup> %ile	---	---	---	21.1	30.2	18.3	20.4	17.0	25.4	21.3
	3 year 98 <sup>th</sup> %ile	---	---	---	---	---	23	23	19	21	21
Saginaw	Annual mean	6.8	5.5	---	---	---	---	---	---	---	---
	Highest 24-hour	24.7	16.6	---	---	---	---	---	---	---	---
	Annual 98 <sup>th</sup> %ile	17.9	16.6	---	---	---	---	---	---	---	---
	3 year 98 <sup>th</sup> %ile	16	16	---	---	---	---	---	---	---	---
Hwy 99 - Four Corners	Annual mean	---	---	8.4	8.3	8.2	6.3	10.0	6.5	8.3	7.1
	Highest 24-hour	---	---	53.5	32.4	47.9	22.9	26.7	30.0	54.6	43.6
	Annual 98 <sup>th</sup> %ile	---	---	33.9	25.3	36.4	19.5	22.1	20.6	40.2	30.5
	3 year 98 <sup>th</sup> %ile	---	---	---	---	32	27	26	21	28	30
Springfield City Hall	Annual mean	8.0	7.4	6.8	6.9	6.8	5.8	5.6	5.5	6.3	6.4
	Highest 24-hour	32.1	30.2	38.6	32.3	21.9	17.9	18.8	18.3	18.8	35.6
	Annual 98 <sup>th</sup> %ile	24.5	27.8	18.4	23.5	18.3	14.0	14.8	15.3	17.2	14.2
	3 year 98 <sup>th</sup> %ile	---	24	24	23	20	19	16	15	16	16
Oakridge	Annual mean	12.8	11.1	10.5	11.5	11.0	8.9	10.0	7.6	9.8	10.1
	Highest 24-hour	73.0	47.0	52.5	43.5	44.1	43.1	47.9	49.9	54.9	46.1
	Annual 98 <sup>th</sup> %ile	58.4	38.6	42.7	38.7	41.3	33.0	42.0	38.4	41.0	41.1
	3 year 98 <sup>th</sup> %ile	53	48	47	40	41	38	39	38	40	40

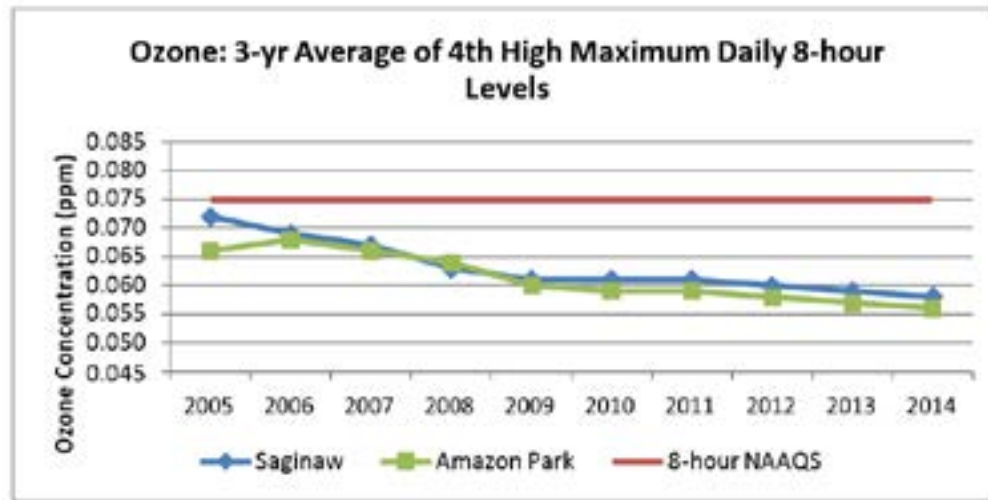


# Ozone Data

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 2005 - 2014 (ppm)											
Site Name		2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Saginaw	Maximum	0.084	0.074	0.064	0.068	0.067	0.074	0.068	0.065	0.059	0.062
	4th highest	0.071	0.070	0.060	0.059	0.066	0.060	0.059	0.062	0.056	0.058
	3-year 4 <sup>th</sup> high	0.072	0.069	0.067	0.063	0.061	0.061	0.061	0.060	0.059	0.058
	# Exceedances	0	0	0	0	0	0	0	0	0	0
Amazon Park	Maximum	0.077	0.084	0.079	0.067	0.068	0.073	0.072	0.065	0.057	0.061
	4th highest	0.064	0.076	0.059	0.059	0.063	0.056	0.059	0.059	0.053	0.058
	3-year 4 <sup>th</sup> high	0.066	0.068	0.066	0.064	0.060	0.059	0.059	0.058	0.057	0.056
	# Exceedances	0	0	0	0	0	0	0	0	0	0

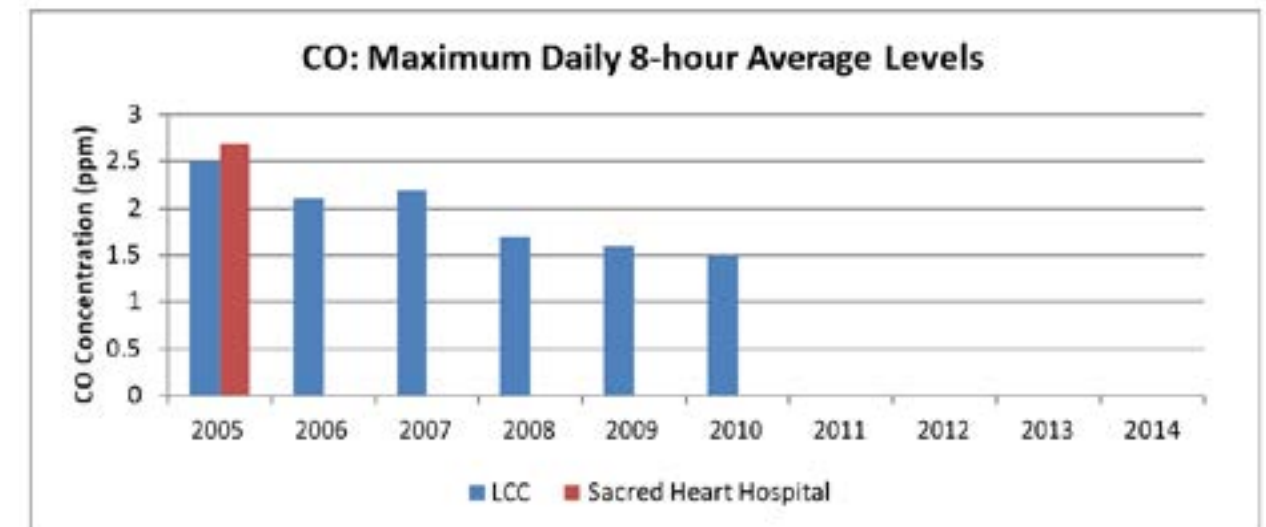
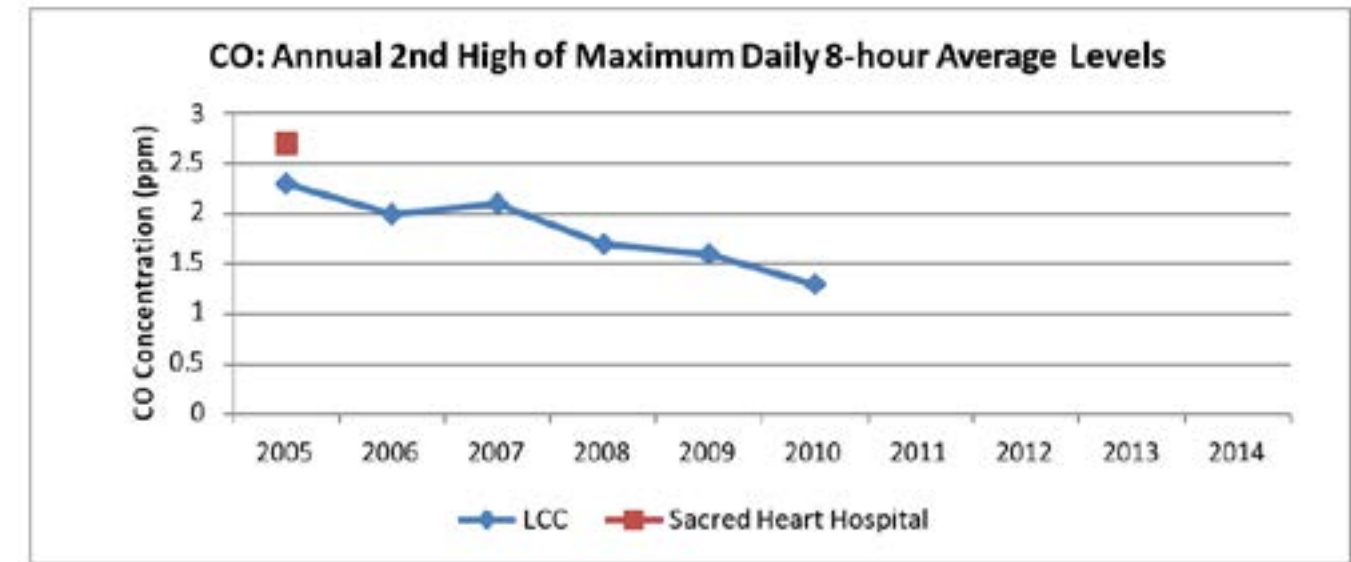


# Carbon Monoxide Data

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 2005 - 2014 (ppm)											
Site Name		2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
LCC - Downtown Eugene	Highest 8-hour	2.5	2.1	2.2	1.7	1.6	1.5	---	---	---	---
	2 <sup>nd</sup> high 8-hour	2.3	2	2.1	1.7	1.6	1.3	---	---	---	---
	# Exceedances	0	0	0	0	0	0	---	---	---	---
Sacred Heart Hospital	Highest 8-hour	2.7	---	---	---	---	---	---	---	---	---
	2 <sup>nd</sup> high 8-hour	2.7	---	---	---	---	---	---	---	---	---
	# Exceedances	0	---	---	---	---	---	---	---	---	---





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