

LANE REGIONAL AIR PROTECTION AGENCY 2016 ANNUAL REPORT



LRAPA
Lane Regional Air Pollution Authority

Photo by Kergis Hiebert, 2016

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 healthy air quality for all current and future Lane County citizens.

Involvement: Inform and involve all citizens and businesses in improving air quality.

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

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

CONTACT INFORMATION

Business Office 541-736-1056

Home Wood Heating Advisory Line 541-746-4328

Home Wood Heating Burn Ban Text Alert Text “LRAPAHWH” to 313131

Open Burning (OB) Advisory Line 541-726-3976

Coastal Lane County OB Advisory Line 541-997-1757

24-Hour Complaint Line 541-726-1930

Fax 541-726-1205

Website www.lrapa.org

Email lrapa@lrapa.org

Facebook [/LaneRegionalAirProtectionAgency](https://www.facebook.com/LaneRegionalAirProtectionAgency)

Twitter [@LaneRegionalAir](https://twitter.com/LaneRegionalAir)

LinkedIn [/LaneRegionalAirProtectionAgency](https://www.linkedin.com/company/LaneRegionalAirProtectionAgency)

PHOTO CREDIT

All photos used in this report were submitted through the LRAPA photo contest, taken by LRAPA staff, or gathered from the royalty-free website www.unsplash.com.



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LETTER FROM THE DIRECTOR

MERLYN HOUGH



As a small regional air authority, we are often tasked with pollution challenges that seem to go beyond our reach. However, 2016 has proven to be another record-breaking year for pollution reduction in Lane County.

Last year, we were proud to announce that Oakridge/Westfir area achieved the lowest ever recorded PM2.5 levels and met the federal standard for the first time since the standards were tightened in 2006. Oakridge is a forest-oriented community located in a small valley of the Middle Fork Willamette River in the foothills of the Cascade Mountains.

The high percentage of wood-heated homes, combined with the temperature inversions and air stagnation on worst winter days, have given Oakridge formidable challenges in meeting air quality health standards, with particulate concentrations over 200 micrograms per cubic meter ($\mu\text{g}/\text{m}^3$) in the late 1980s.

All the best Oregon wood smoke strategies were focused on Oakridge; it met the 150 $\mu\text{g}/\text{m}^3$ PM10 standard on schedule by 1995, and the initial PM2.5 standard of 65 $\mu\text{g}/\text{m}^3$ by the year 2000. I am happy to report that Oakridge achieved the current PM2.5 standard of 35 $\mu\text{g}/\text{m}^3$ for the 3-year period of 2014-2016. The Oakridge community is a major success story as it reduced wood smoke from over 200 to less than 35 $\mu\text{g}/\text{m}^3$ over this past 25 years!

Cleaner Air Oregon, a collaborative effort led by the state's Department of Environmental Quality and Oregon Health Authority, lends a closer look at air quality regulations in our state. Through increased communication between the partner agencies and carefully planned regulation approaches, we expect to see improvements in public health and a stronger partnership between regulated industries and the public.

Zero emission and hybrid vehicles continue to make strides in the improvement of cleaner transportation. Gasoline and diesel fueled vehicles contribute major air toxics such as benzene, naphthalene, diesel particulate matter, and exhaust gases that contribute to summer ozone or smog. LRAPA promotes using electric vehicles by providing free charging stations at the LRAPA

LETTER FROM THE DIRECTOR

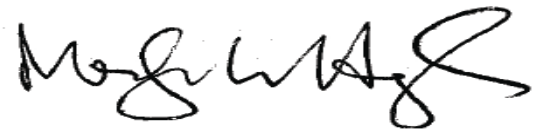
MERLYN HOUGH

office and having a zero-emission fleet vehicle. As we look toward the future, I am particularly excited by the adoption of electric vehicles in other public agencies.

Overall, we are optimistic about the future and encouraged by the progress and improvement in Lane County air quality. Although the current political climate leads to an uncertain future for environmental regulations, here at LRAPA, we will continue to pursue our mission to protect public health, community well-being, and the environment as a leader and advocate for the

improvement and maintenance of air quality in Lane County. We are thankful to be serving a community that is so welcoming of our presence and work.

Merlyn Hough, Director



BOARD OF DIRECTORS

The LRAPA Board of Directors appoint 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.

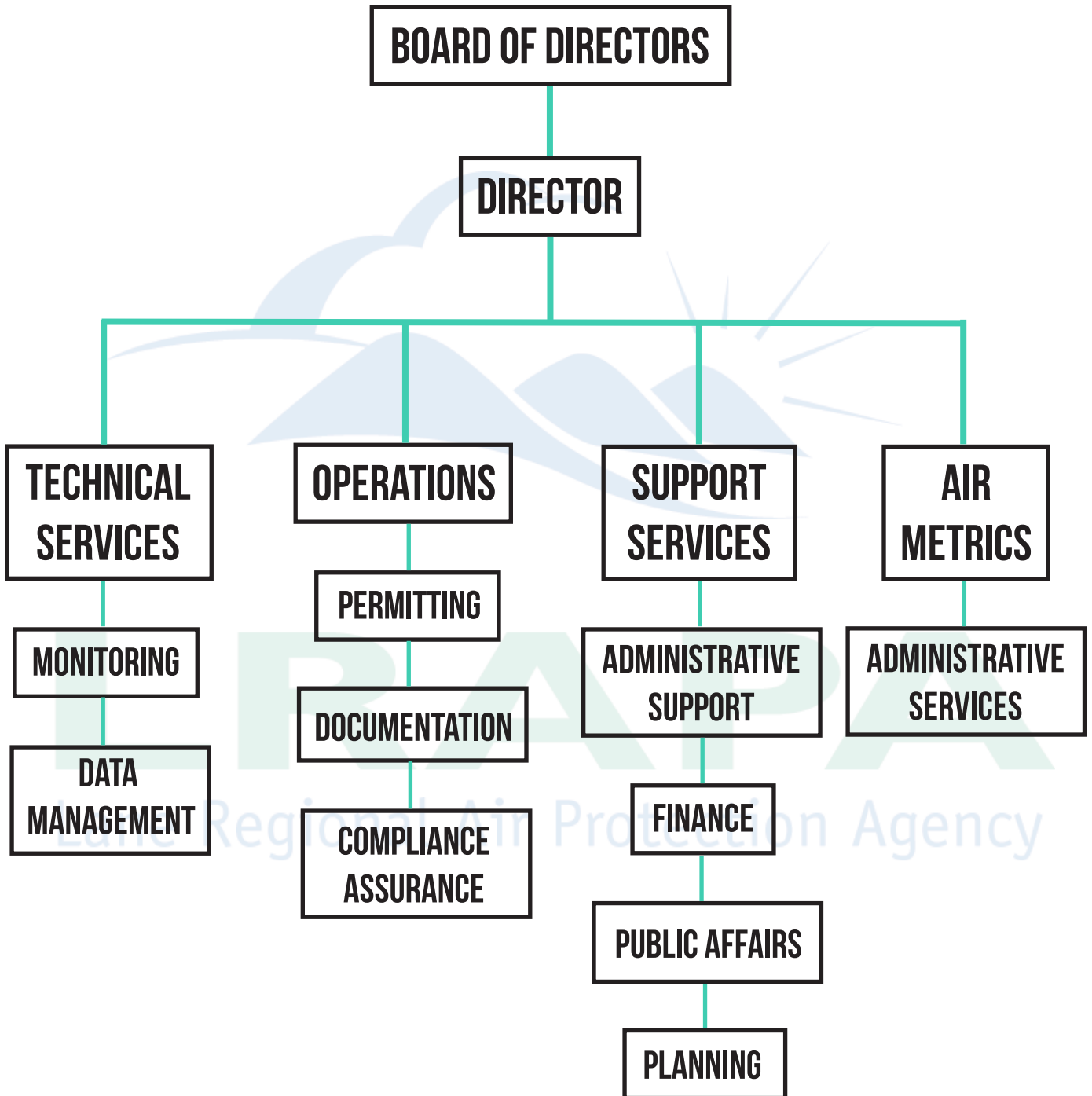
Jeannine Parisi	Chair, Eugene
Jay Bozievich	Vice Chair, Lane County
Jim Coey	Oakridge
Bill Carpenter	Springfield
Scott Lucas	Eugene
Betty Taylor	Eugene
Joseph Gonzales	Eugene
Dave Ralston	Springfield
Mike Fleck	Cottage Grove

CITIZENS ADVISORY COMMITTEE

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

Maurie Denner	Chair, 12 years of service, general public
Chuck Gottfried	Vice Chair, 8 years of service, agriculture
Gery Vander Meer	14 years of service, general public
Jim Daniels	7 years of service, large industry
John Tamulonis	19 years of service, planning
Larry Dunlap	17 years of service, public health
Laura Seyler	6 years of service, large industry
Link Smith	8 years of service, fire suppression
Paul Engelking	19 years of service, general public
Randy Hledik	6 years of service, industry
Terry Richardson	3 years of service, general public
Kathleen Lamberg	1 year of service, general public
Leonard Epstein	1 year of service, general public
Bill Brommelsiek	1 year of service, general public

ORGANIZATIONAL CHART



LRAPA

The Lane Regional Air Protection Agency (LRAPA) is committed as a community partner working toward ensuring clean air for Lane County citizens. Through our mission, we act upon our commitment to our stakeholders and partners.

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. Sixteen local citizens comprise our Citizens Advisory Committee, which provides input and recommendations to the LRAPA Board and agency staff.

AIR QUALITY

Since our 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, outreach, and public education. To us, involvement means participating in projects to improve our community. In addition, we strive to fulfill our regulatory responsibilities to our partners and inform the public with accurate and timely information.

Our commitment to the local community is demonstrated by our development of community projects, public event booths, 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 solutions with citizens, and where the executive director is just a phone call or an office visit away.

SERVICE

A service organization serves its community, and a government agency should serve its constituents. Whether it be the general public looking for help to solve an odor problem, a 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, respondents overwhelmingly gave staff high marks for respectfulness, courteousness, helpfulness, timeliness, and 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.

PARTNERSHIP

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.



(Photo: LRAPA teaches at the Twin Oaks outdoor school.)



(Photo: EPA visits the LRAPA monitoring station in Oakridge.)

FUNDING AND BUDGETING

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.

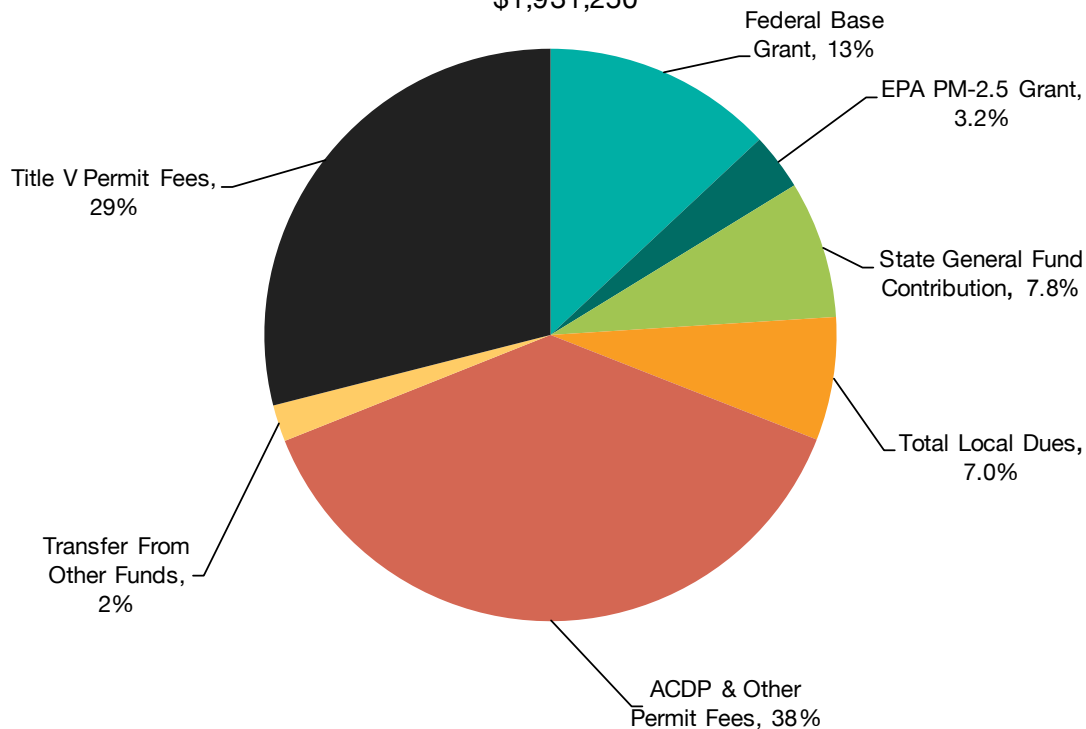
In the past several years, LRAPA has experienced reduced revenues as the result of decreased funding at the local, state, and federal levels. The agency has responded by reducing staff and cutting certain programs to focus on core responsibilities. This year, with the institution of a reserve policy 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 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 commitment and efforts to deliver on its mission.

LRAPA Core Operating Budget Resources

FY'16

\$1,931,250



PERMITTING

Photo by Kergis Hiebert, 2016

LRAPA-issued operating permits are required for a number of industries and businesses in Lane County. Of the 310 permitted sources in Lane County, 289 have Air Contaminant Discharge Permits (ACDP), 18 hold Title V Federal Operating Permits, and 3 are Registered Sources. Gasoline dispensing facilities (GDFs) account for 35% of the ACDPs (i.e., 103 GDFs out of 289 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.

Source activities 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, and sources of toxic air pollutants.

In 2016, Department of Environmental Quality and the Oregon Health Authority launched an initiative to revamp air quality regulations in Oregon through a health based standard. This project, called “Cleaner Air Oregon” reviews risk levels for over 200 air toxics and is set to go into rulemaking review in 2017. LRAPA permittees have played a key role in managing the industries in Lane County and providing support, expertise, and input throughout the process.



(Top: LRAPA staff visit a permit site. Bottom: LRAPA permit manager reviews current permits.)



2016 Permitting Summary

Permits Issued & Renewed	Permits Modified	Industries Inspected
39	125	149

ENFORCEMENT

Photo by Alexandra Breyer, 2016

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 \$41,508 in penalties during 2016. All penalties collected are forwarded to the Lane County general fund; however, attorney fees associated with contested cases are deducted first.

In 2016, LRAPA issued 41 administrative Notices of Non-Compliance and 36 notices of violations with civil penalties

Summary Enforcement Actions 2006 - 2016

Year	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Notices of Non-Compliance & Warnings	51	48	57	37	57	64	41	51	36	38	41
Notices of Violations with Civil Penalties	33	47	36	28	39	42	29	23	28	37	36

Total Civil Penalties 2006 - 2016

Year	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Total Civil Penalties Collected (\$)	16,404	46,050	46,526	53,786	27,941	28,187	29,727	21,102	14,511	30,790	41,508

ASBESTOS ABATEMENT

Photo by Kyrra Martin, 2016

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, and follow certain requirements when removing asbestos containing waste.



(Top: LRAPA staff inspects asbestos abatement projects. Bottom: Abatement site is taped off with warning labels.)

2016 Asbestos Notices	
Schools	27
Residence	231
College	35
Industry	11
Commercial	124
Other	15
Total	444
2016 Asbestos Inspections	
Total	82
2016 Asbestos Fees Recieved	
Total	\$ 164,744.50



COMPLAINT RESPONSE

LRAPA investigates citizen complaints whenever one is registered with the agency. Field officers also include potential complaints they observe and respond to in the field. 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 2016, we saw a decrease in the number of home wood heating complaints but a steady increase in open burning complaints.

LRAPA takes great pride in complaint response and all our staff work hard to respond to almost every complaint received and aim to provide solutions and resolve any issues. The success of our complaint program is reflected in the steady decrease of complaints throughout the years.

PERCENT CHANGE FROM 2015 - 2016	
Dust	+ 28.0 %
AG/Field Burning	- 25.0 %
General Air Quality	+ 33.3 %
Home Wood Heating	- 62.0 %
Industry	- 11.5 %
Miscellaneous	+ 93.0 %
Open Burning	+ 6.0 %
Slash Burning	+ 136.4 %
Unknown	+ 21.7 %
TOTAL	- 9.3 %

LRAPA COMPLAINTS 2006-2015

Year	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Dust	6	21	21	34	33	44	30	14	25	32
AG/Field Burning	341	101	24	9	13	1	17	4	12	9
General Air Quality	63	14	21	2	6	6	26	30	15	20
Home Wood Heating	82	130	113	62	135	95	219	121	342	130
Industry	327	231	270	265	169	128	122	127	52	58
Miscellaneous	109	137	61	77	101	79	52	57	85	164
Open Burning	390	293	277	268	341	268	321	279	251	266
Slash Burning	33	25	3	5	16	7	5	7	11	26
Unknown	124	59	25	12	25	17	14	35	46	56
TOTAL	1496	1011	815	734	839	645	806	674	839	761

OUTREACH AND EDUCATION



(Top: LRAPA booth at EarthDay Birthday with visits from #LoveFoodNotWaste. Bottom: LRAPA Public Education setting up an experiment at Oakridge Outdoor school.)



The Public Affairs department at 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 believe 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, digital outreach, advertising campaigns, or other information avenues.

Over the past couple years, the program has evolved from one focused on media relations, mandatory program outreach to the community, and direct mailings, to the more dynamic program it is today.

In 2016, LRAPA's public outreach strengthened its year old digital outlets. On both Facebook and Twitter, LRAPA gained followers, likes, and increased engagement. Paid advertising on these channels lead to exposure to thousands of citizens on a single post, which was especially helpful during burn ban notices. Both sites have been gaining a steady audience and allows for the public to communicate with LRAPA on another level. Our Facebook following grew by 30% and Twitter by 12%.

In order to simplify the home wood heating smoke ban alerts, LRAPA implemented a text and e-mail alert system a couple years ago. The system is in full swing now with over 300 people signed up for text message alerts and almost 700 people signed up for e-mail alerts.

Twenty 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.

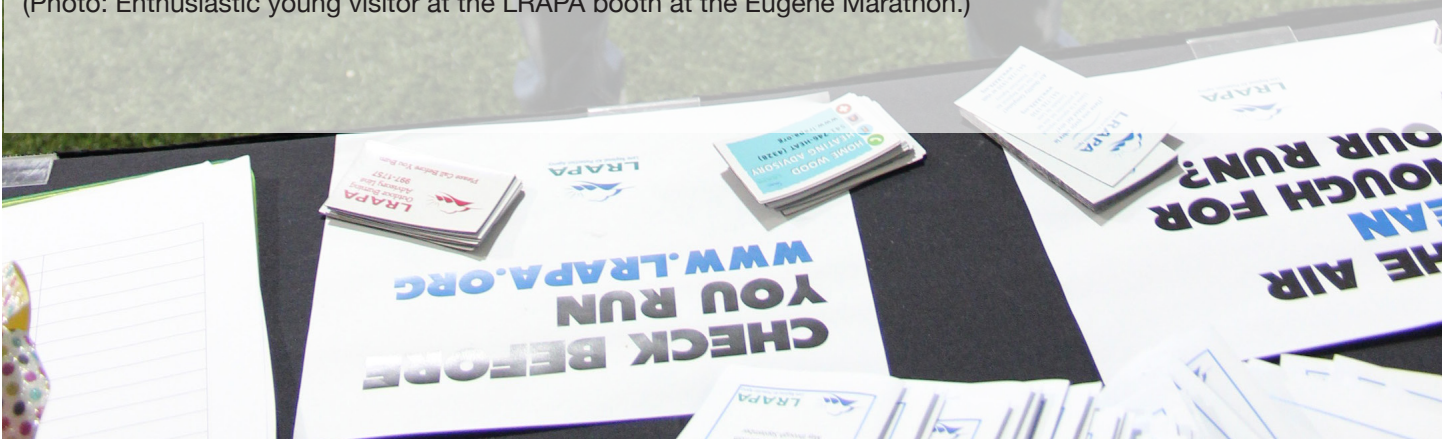


In the last decade, the LRAPA Public Affairs office has evolved to increase scope and depth of its programs to include: digital advertising; website design and management; anti-idling campaigns targeting schools; summertime air quality campaigns; school outreach; diesel education; community events-planning (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 26 media interviews in 2016. Their audience also expanded to people at outreach and education events including: Lane County Home and Garden Show, Earth Day, National Drive Electric Week, Eugene Marathon, EPA Monitor Tour, Town Halls, Neighborhood Association Meetings, and more. LRAPA public education also expands to outdoor school, K-12 science classrooms, and college courses.

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.

(Photo: Enthusiastic young visitor at the LRAPA booth at the Eugene Marathon.)



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.

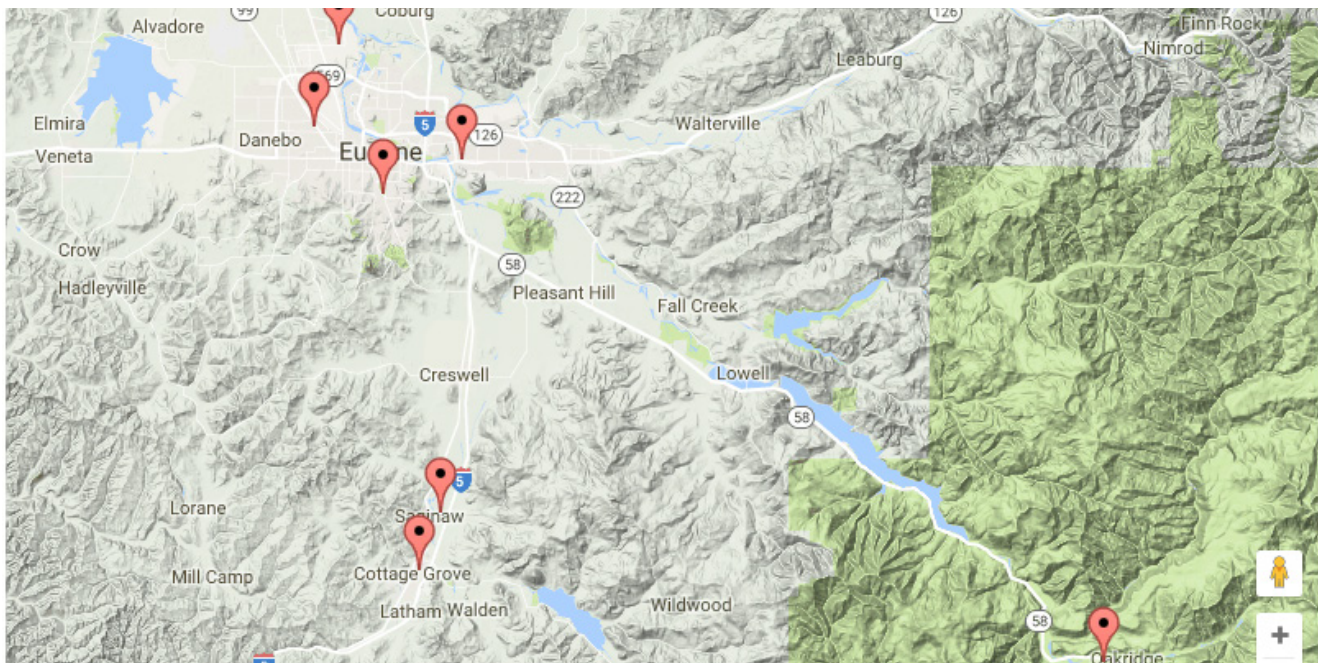
LRAPA's network includes three locations in Eugene, and one each in Springfield, Oakridge, Cottage Grove, and Saginaw. Monitoring stations have special instruments to measure the amount of specific pollutants in the air. Using information from the monitors, it can be determined whether the air is healthy 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.



(Top 1: Filters from monitors. Top 2: Monitoring equipment. Top 3: Ospreys nesting by Wilkes monitoring site. Bottom: Map of LRAPA monitoring sites)



AIR QUALITY INDEX

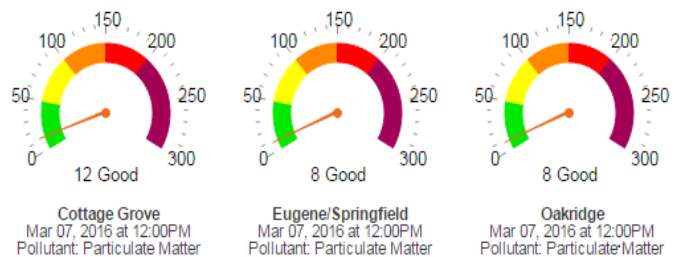


(Photo: Fall afternoon in South Eugene.)

The United States Environmental Protection Agency (EPA) 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.

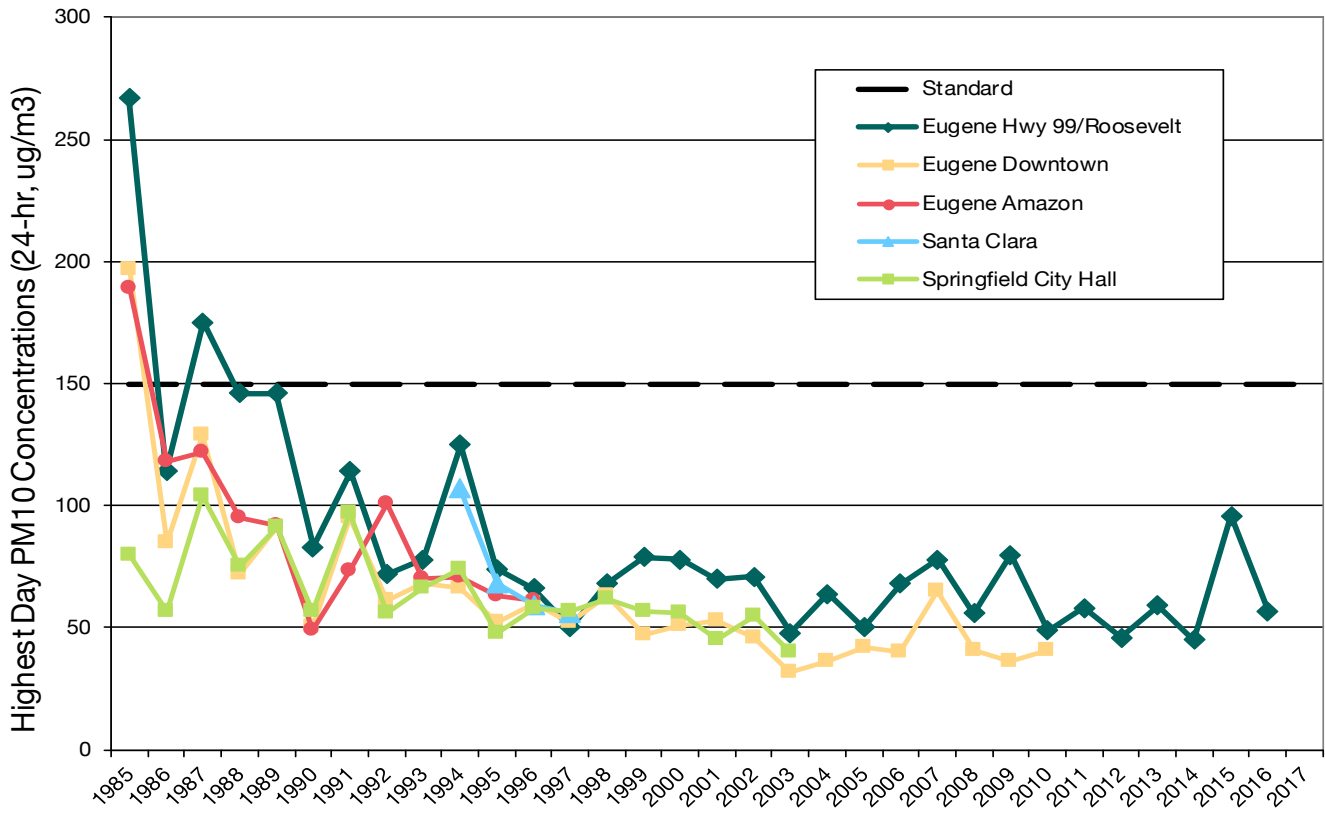
The LRAPA website displays the current AQI information for Eugene/Springfield, Oakridge, and Cottage Grove on its home page. The AQI is updated on an hourly basis to provide current information to the public. More detailed technical information from all LRAPA monitoring sites can be accessed on our website including: data summary, AQI for the last 45 days, monitoring site map, and data graphing.



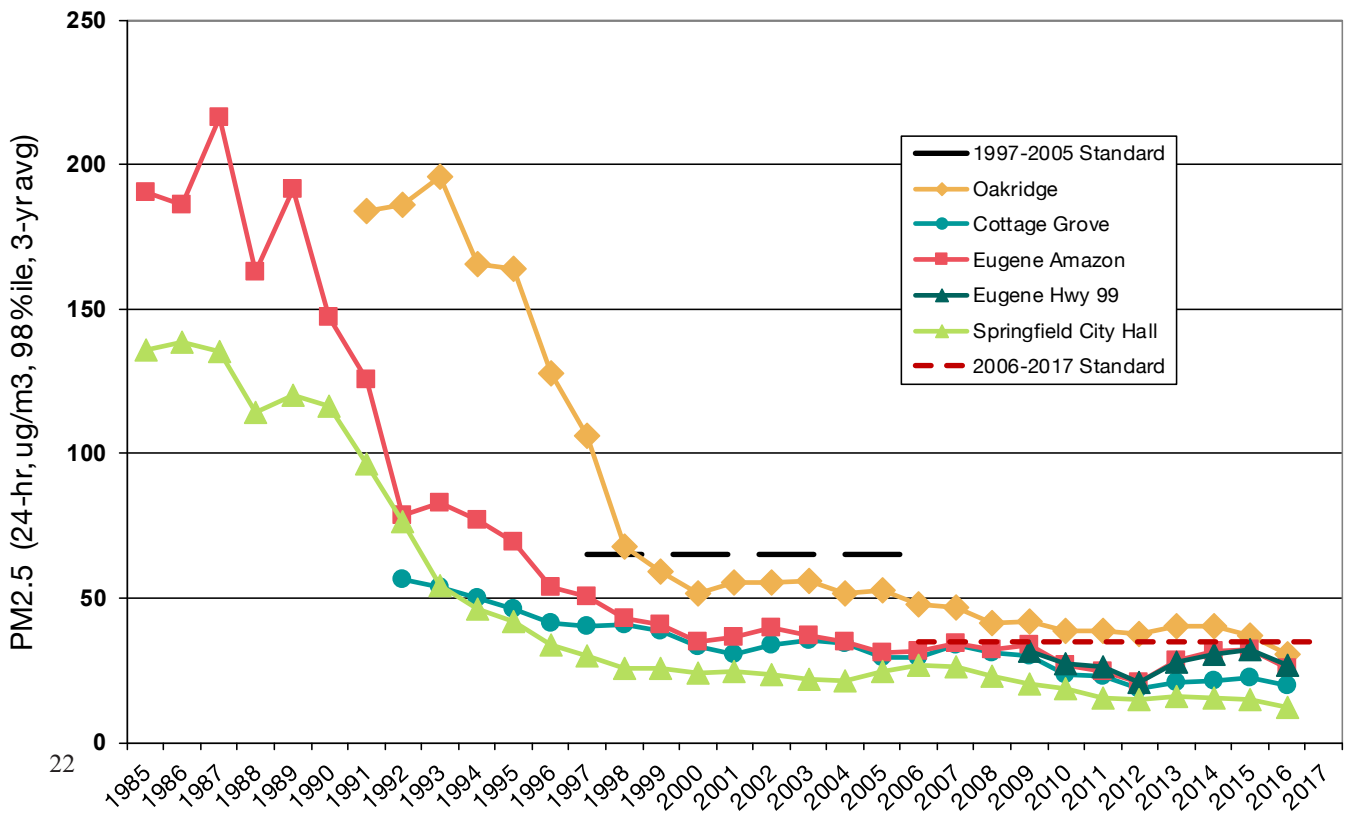
<p>GOOD 0-50</p> <p>Air quality is considered satisfactory, and air pollution poses little or no risk.</p>	<p>MODERATE 51-100</p> <p>Air quality is acceptable; however, for some pollutants there may be a moderate health concern for a very small number of people who are unusually sensitive to air pollution.</p>	<p>UNHEALTHY FOR SENSITIVE GROUPS 101-150</p> <p>Members of sensitive groups may experience health effects. The general public is not likely to be affected.</p>	<p>UNHEALTHY 151-200</p> <p>Everyone may begin to experience health effects; members of sensitive groups may experience more serious health effects.</p>	<p>VERY UNHEALTHY 201-300</p> <p>Health warnings of emergency conditions. The entire population is more likely to be affected.</p>	<p>HAZARDOUS 301-500</p> <p>Health alert: everyone may experience more serious health effects.</p>
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LONG TERM TRENDS IN LANE COUNTY

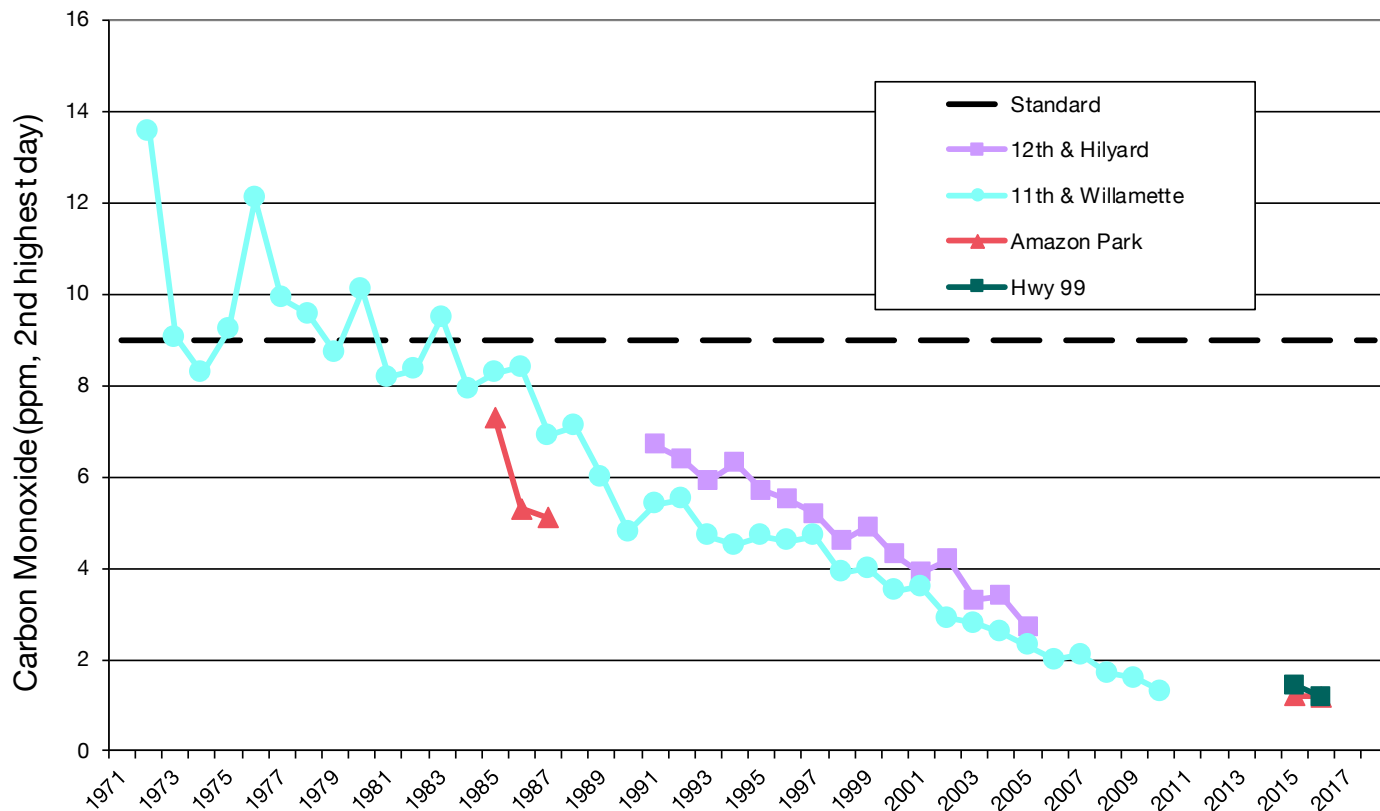
Inhalable Particulate Matter (PM10) in Lane County



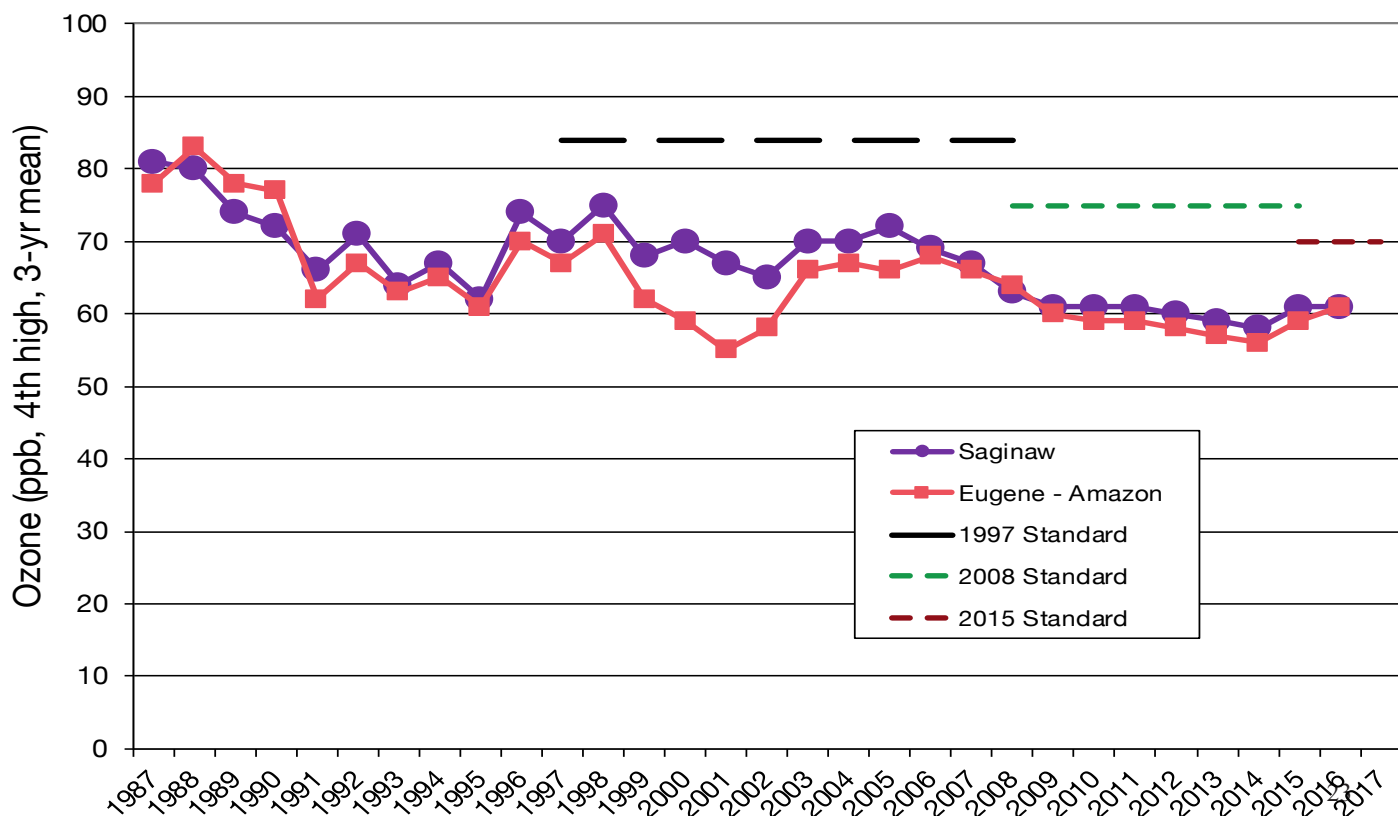
Respirable Particulate Matter (PM2.5) in Lane County



Carbon Monoxide in Eugene



Ozone in Lane County

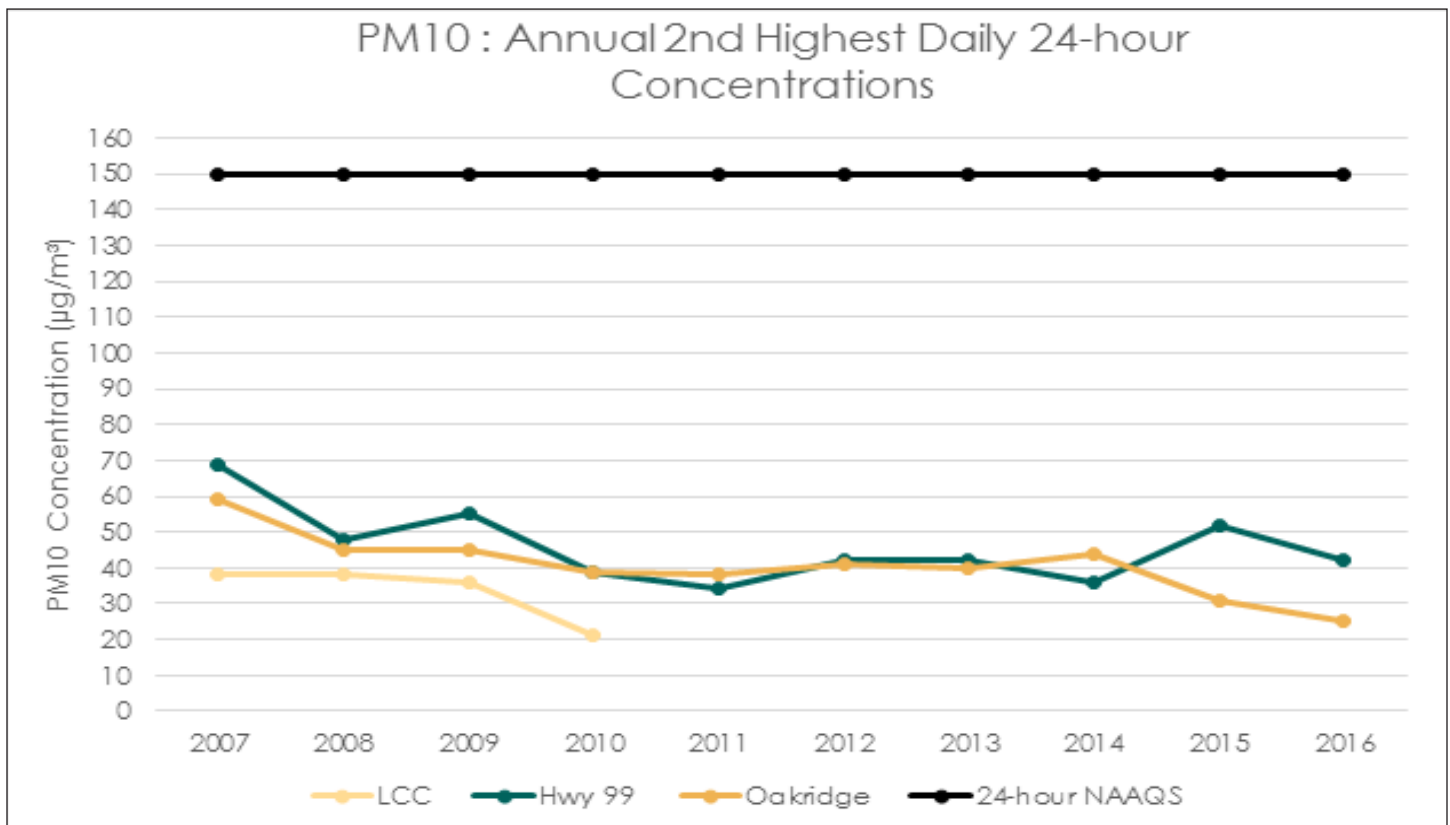


PARTICULATE MATTER DATA - PM10

EPA has designated the following National Ambient Air Quality Standards (NAAQS) for PM10:

Level	Averaging Time	Description
150 $\mu\text{g}/\text{m}^3$	24-hour	Not to be exceeded more than once per year on average over 3 years.

PM ₁₀ Levels 2007 - 2016 ($\mu\text{g}/\text{m}^3$)											
Site Name		2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
LCC - Downtown	Highest 24-hour	65	41	36	41	---	---	---	---	---	---
	2 nd Highest 24-hour	38	38	36	21	---	---	---	---	---	---
	Annual Average	13	13	12	11	---	---	---	---	---	---
Cottage Grove	Highest 24-hour	---	---	---	---	---	---	---	---	---	---
	2 nd Highest 24-hour	---	---	---	---	---	---	---	---	---	---
	Annual Average	---	---	---	---	---	---	---	---	---	---
Hwy 99	Highest 24-hour	78	56	80	49	58	46	59	42	96	57
	2 nd Highest 24-hour	69	48	55	39	34	42	42	36	52	42
	Annual Average	16	16	16	13	13	14	16	16	17	14
Oakridge	Highest 24-hour	59	49	47	48	49	44	53	51	37	30
	2 nd Highest 24-hour	59	45	45	39	38	41	40	44	31	25
	Annual Average	14	16	14	8	12	12	13	14	13	10

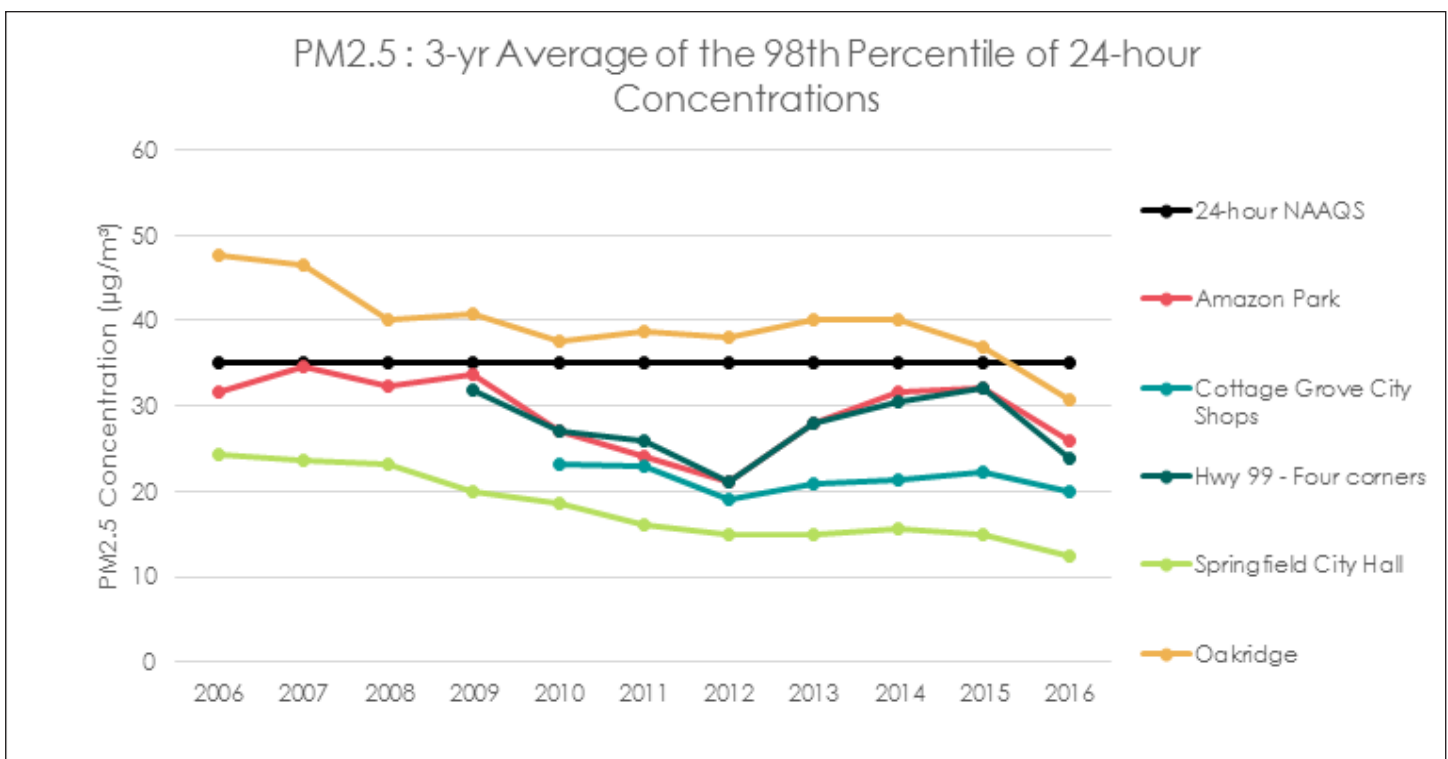


PARTICULATE MATTER DATA - PM2.5

EPA has designated the following National Ambient Air Quality Standards (NAAQS) for PM2.5:

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 2007 - 2016 (µg/m ³)											
Site Name		2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Amazon Park	Annual mean	7.3	7.8	8.5	5.7	6.5	6.4	7.8	7.2	7.4	5.4
	Highest 24-hour	43.0	40.0	59.9	21.0	24.6	31.6	51.9	35.5	55.3	38.2
	Annual 98 th %-ile	36	29	36	16	21	25	39	31	27	20
	3 year 98 th %-ile	35	32	34	27	24	21	28	32	32	26
Cottage Grove City Shops	Annual mean	---	8.1	8.5	6.9	7.1	6.7	7.5	6.9	7.3	5.8
	Highest 24-hour	---	31.8	33.6	21.1	32.1	24.7	38.1	34.0	39.6	26.2
	Annual 98 th %-ile	---	21	30	18	21	17	25	21	20	18
	3 year 98 th %-ile	---	---	---	23	23	19	21	21	22	20
Hwy 99 - Four Corners	Annual mean	8.3	8.3	8.2	6.3	6.8	6.5	8.3	7.2	8.0	5.7
	Highest 24-hour	53.5	32.4	47.9	22.9	26.7	30.0	54.6	43.6	56.4	18.0
	Annual 98 th %-ile	34	25	36	20	22	21	40	31	26	16
	3 year 98 th %-ile	---	---	32	27	26	21	28	30	32	24
Springfield City Hall	Annual mean	6.8	6.9	6.8	5.8	5.6	5.5	6.3	6.4	6.3	4.7
	Highest 24-hour	38.6	32.3	21.9	17.9	18.8	18.3	18.8	35.6	54.0	10.4
	Annual 98 th %-ile	18	24	18	14	15	15	17	14	13	9
	3 year 98 th %-ile	24	23	20	19	16	15	16	15	15	12
Oakridge	Annual mean	10.5	11.5	11.0	8.9	10.0	7.6	9.8	10.0	8.9	6.7
	Highest 24-hour	52.5	43.5	44.1	43.1	47.9	49.9	54.9	46.1	39.3	30.7
	Annual 98 th %-ile	43	39	41	33	42	38	41	41	29	22
	3 year 98 th %-ile	47	40	41	38	39	38	40	40	37	31



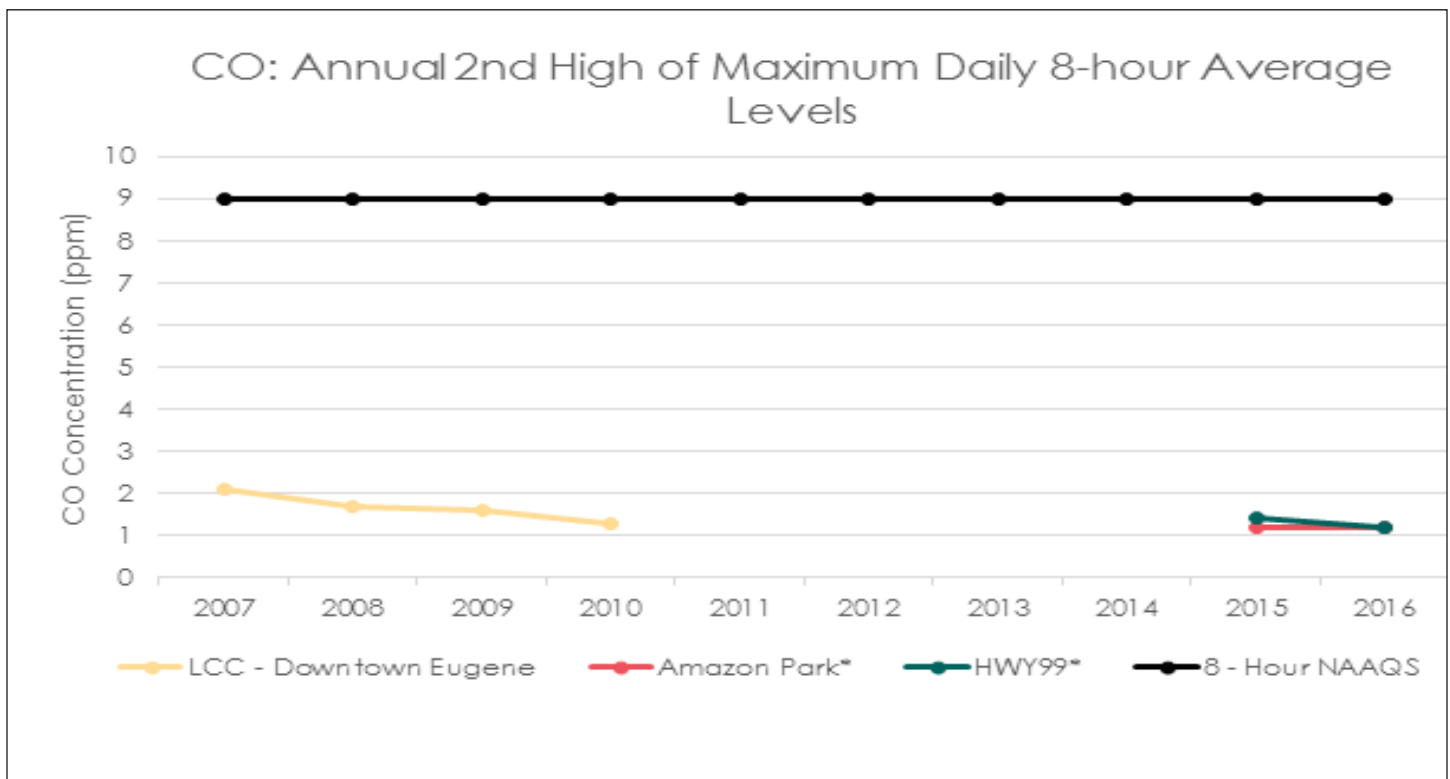
CARBON MONOXIDE DATA

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.

The carbon monoxide levels, relating to the 1-hour standard in lane county, are less than 10% of the standard.

CARBON MONOXIDE (CO) LEVELS 2007 - 2016 (ppm)											
Site Name		2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
LCC - Downtown Eugene	Highest 8-hour	2.2	1.7	1.6	1.5	---	---	---	---	---	---
	2nd high 8-hour	2.1	1.7	1.6	1.3	---	---	---	---	---	---
	# Exceedances	0	0	0	0	---	---	---	---	---	---
Amazon Park*	Highest 8-hour	---	---	---	---	---	---	---	---	1.3	1.3
	2nd high 8-hour	---	---	---	---	---	---	---	---	1.2	1.2
	# Exceedances	---	---	---	---	---	---	---	---	0	0
HWY99*	Highest 8-hour	---	---	---	---	---	---	---	---	1.6	1.4
	2nd high 8-hour	---	---	---	---	---	---	---	---	1.4	1.2
	# Exceedances	---	---	---	---	---	---	---	---	0	0



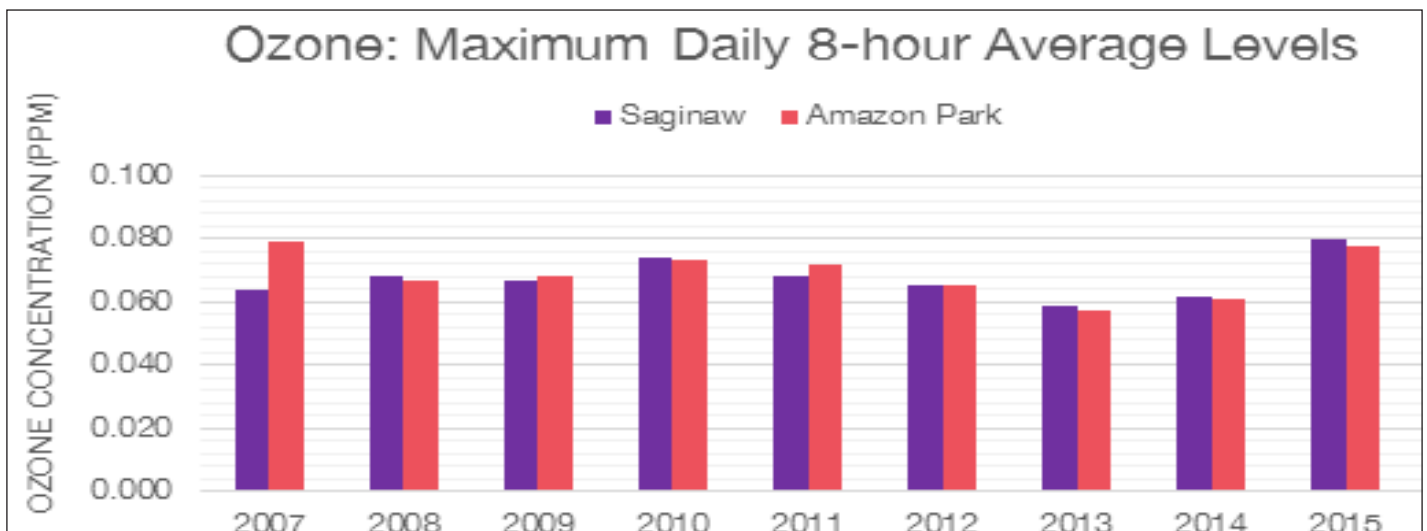
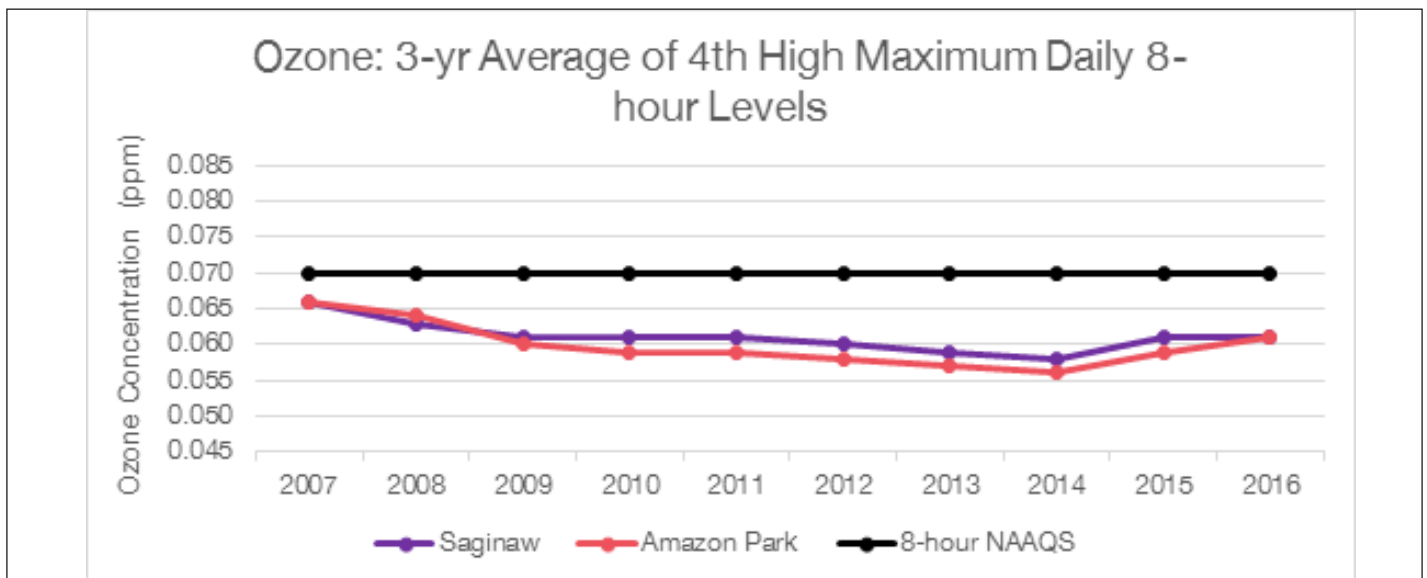
OZONE DATA

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

Level	Averaging Time	Description
0.070 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 0.070 ppm. (effective October 1, 2015)

8-HOUR AVERAGE OZONE LEVELS 2007 – 2016 (ppm)

Site Name		2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Saginaw	Maximum	0.064	0.068	0.067	0.074	0.068	0.065	0.059	0.062	0.080	0.065
	4th highest	0.060	0.059	0.066	0.060	0.059	0.062	0.056	0.058	0.071	0.056
	3-year 4 th high	0.067	0.063	0.061	0.061	0.061	0.060	0.059	0.058	0.061	0.061
	# Exceedances	0	0	0	1	0	0	0	0	4	0
Amazon Park	Maximum	0.079	0.067	0.068	0.073	0.072	0.065	0.057	0.061	0.078	0.066
	4th highest	0.059	0.059	0.063	0.056	0.059	0.059	0.053	0.058	0.068	0.058
	3-year 4 th high	0.066	0.064	0.060	0.059	0.059	0.058	0.057	0.056	0.059	0.061
	# Exceedances	1	0	0	1	1	0	0	0	3	0





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