

LANE REGIONAL AIR PROTECTION AGENCY



ANNUAL REPORT 2021

1010 MAIN ST.

SPRINGFIELD, OR 97477

WWW.LRAPA.ORG

CONTENTS

03	LETTER FROM THE DIRECTOR	12	WEBPAGE ADDITIONS
04	LRAPA, WHO ARE WE?	13	AIR QUALITY SURVEY
05	BOARD OF DIRECTORS	14	OAKRIDGE AIR PROGRAM
06	CITIZEN ADVISORY COMMITTEE	15	AIRMETRICS ENTERPRISE FUND
07	DEPARTMENTS & STAFFING	16	LANE COUNTY AIR MONITORING
08	BUDGET & FINANCES	17	OZONE MONITORING
09	PERMITTING & CLEANER AIR OREGON	18	PARTICULATE MATTER 2.5 MONITORING
10	ASBESTOS ABATEMENT	20	PARTICULATE MATTER 10 MONITORING
11	COMPLAINTS & ENFORCMENT	22	LRAPA AIR SURVEY RAW DATA



LETTER FROM THE DIRECTOR

STEVE DIETRICH

The year 2021 will be remembered as a year with important accomplishments, unique challenges, and planned change for the Lane Regional Air Protection Agency (LRAPA), as we further 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. Air quality improvements continue to be made on a federal, state, and local level giving me assurance our combined efforts have made a positive difference for current and future generations to enjoy healthy and cleaner air.

I am pleased to be LRAPA's new Executive Director and have been working hard to provide a smooth transition into new agency leadership and getting to know staff and our partners in Lane County and the cities of Eugene, Springfield, Oakridge, and Cottage Grove. Over time I hope to build these relationships and look forward to making improvements in air quality together.

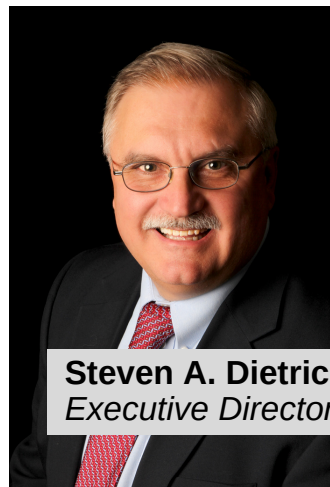
Since coming to LRAPA in April of 2021, I have been busy working with staff, the Board of Directors, and the Citizens Advisory Committee to observe and learn about the important work being done and the decisions being made to be successful protecting and improving air quality. Some of these decisions have included internal staff changes, such as hiring our new Director of Finance and Administrative Services, Julie Lindsey, as part of LRAPA's management team. New membership in our Board of Directors have also brought change, but also new opportunities.

There have been some notable challenges, such as finding unique ways to continue our work, even though the COVID-19 pandemic has found a way to affect everyone's life for another year. It was also a year of weather extremes, as historic summer high temperatures reached the century mark more than once and exacerbated statewide drought conditions. This only added to the challenge of balancing the need for open burning requests with that of limiting activities that could increase wildfire potential and negatively affect air quality.

Despite these challenges, there have been important accomplishments that need to be highlighted. The work associated with the Oakridge Air Targeted Airshed Grant (TAG) has resulted in continued significant reductions in particulate matter, including PM10 and PM2.5, emissions in the Oakridge-Westfir area. The reduction supports the PM10 and PM2.5 Maintenance plans and redesignation to attainment request adopted by our Board of Directors in October. Subsequently, LRAPA presented the plans and redesignation request to Oregon DEQ's Environmental Quality Commission in November and obtained approval. We are looking forward to EPA's final approval in 2022.

LRAPA continues the implementation of the Cleaner Air Oregon program. The program was started by Governor Brown in 2016 to evaluate potential health risks to people near commercial and industrial facilities that emit regulated toxic air contaminants and communicate those results to affected communities and ultimately reduce those risks to below health standards.

In 2021 LRAPA, along with the Oregon DEQ and OHA, increased collaboration by more frequent and focused public engagement meetings intended to provide information to help everyone understand the health effects of air toxics in their community. The meetings have also created a venue to listen to community concerns and arrive at plausible solutions that meet regulatory requirements and reduce or eliminate public health risks.



Steven A. Dietrich
Executive Director

A handwritten signature in blue ink that reads "Steven A. Dietrich". The signature is written in a cursive, flowing style.

As Lane County begins the new year, we will continue to face many challenges ahead, but our work will continue with renewed effort. LRAPA continues to explore new ways to meet and overcome the many challenges we encounter. We're blessed to live in such a remarkable part of the world and LRAPA remains ready and able to assure our air is healthy and breathable for all our family, friends, and community members!

WHO ARE WE?

The Lane Regional Air Protection Agency (LRAPA) is the local air quality authority for Lane County, Oregon. Founded in 1968 by the collective support of Lane County, Eugene, Springfield, Cottage Grove, and Oakridge, LRAPA is the only local air authority in Oregon. Outside Lane County air quality is monitored and regulated by the Oregon Department of Environmental Quality (DEQ).

As a local government agency, LRAPA presents more opportunity for voices in our communities to be recognized, heard, and provide input on decisions made regarding Lane County's air. LRAPA plays an active role in community development and planning by working collectively with other local government and non-profits to achieve federal National Ambient Air Quality Standards (NAAQS) set by the Clean Air Act, and to implement Oregon's statewide air toxics assessment program called Cleaner Air Oregon.

Despite an increase in population and traffic, Lane County's air quality area has seen continued improvement since agency inception. The Eugene/Springfield metro area meets all federal NAAQS in part, due to LRAPA's efforts to administer state regulations and local mandatory and voluntary programs.

: GOALS :

Partnership: Work with partners to leverage resources to make a difference in local Air Quality.

Air Quality: To ensure healthy air quality for all who live and work in Lane County.

Involvement: Inform and involve all who live and do business in Lane County on our work to improve air quality.

Service: Serve the communities and stakeholders across Lane County fairly, courteously, and in a timely manner.

Our Vision: Community partners working together to ensure cleaner air for everyone.

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



BOARD OF DIRECTORS FOR 2021



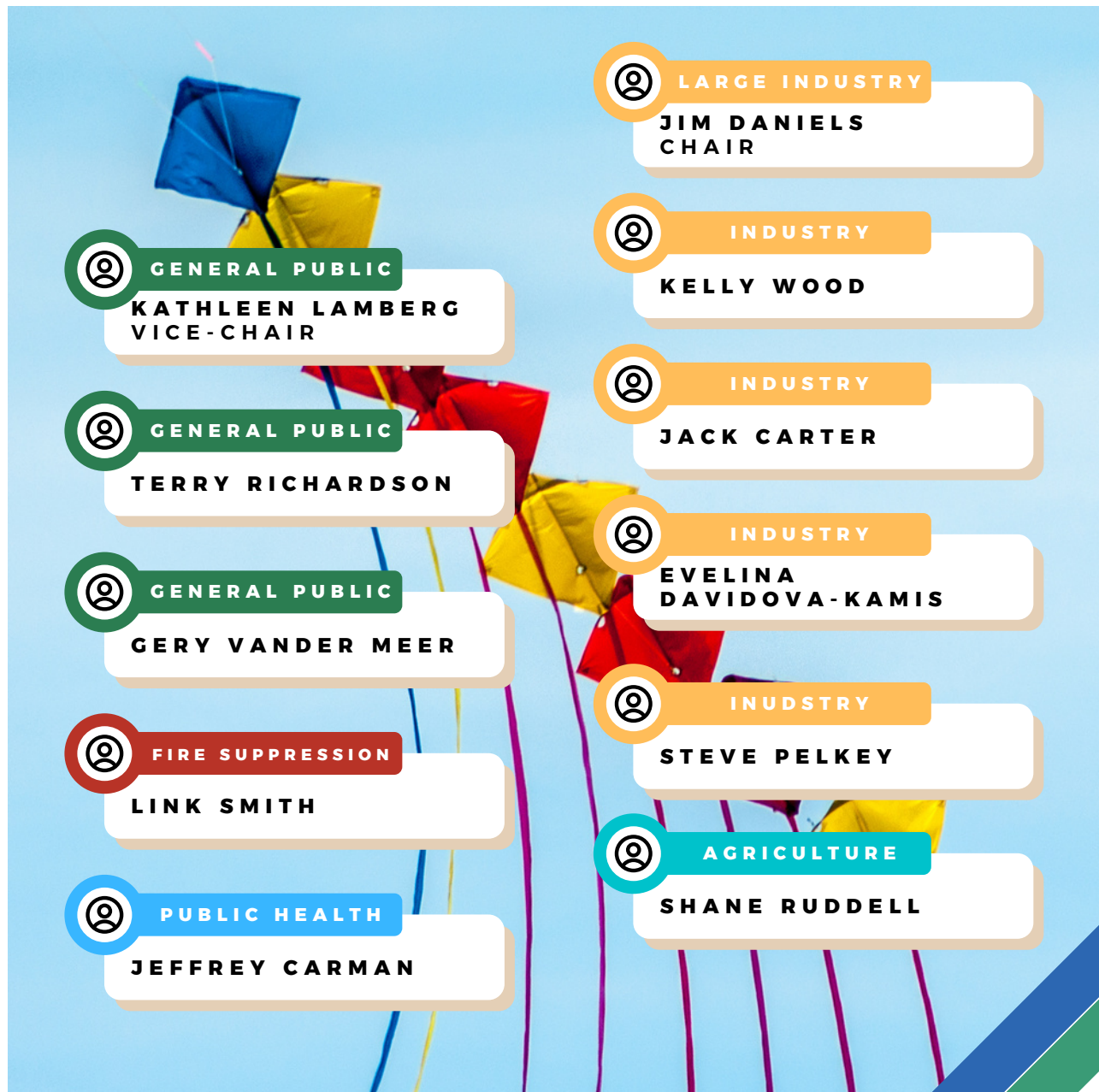
LRAPA's Board of Directors is a nine-member group of appointed fiduciaries who steer the organization towards a sustainable future by adopting sound and ethical legal governance, as well as financial management policies and assuring LRAPA has adequate resources to advance its mission.

Board members volunteer their time to LRAPA and are appointed by their respective city councils and the Lane County Board of Commissioners. Seat distribution on LRAPA's Board is representative of population size and density. 2021 membership includes four seats for the City of Eugene, two for the City of Springfield, one for the City of Cottage Grove, one for the City of Oakridge and one for Lane County.

LRAPA's Board meets on the second Thursday of every month (no meetings generally occur in August or December). These meetings are open to the public with opportunity for public statements at the start of each meeting.

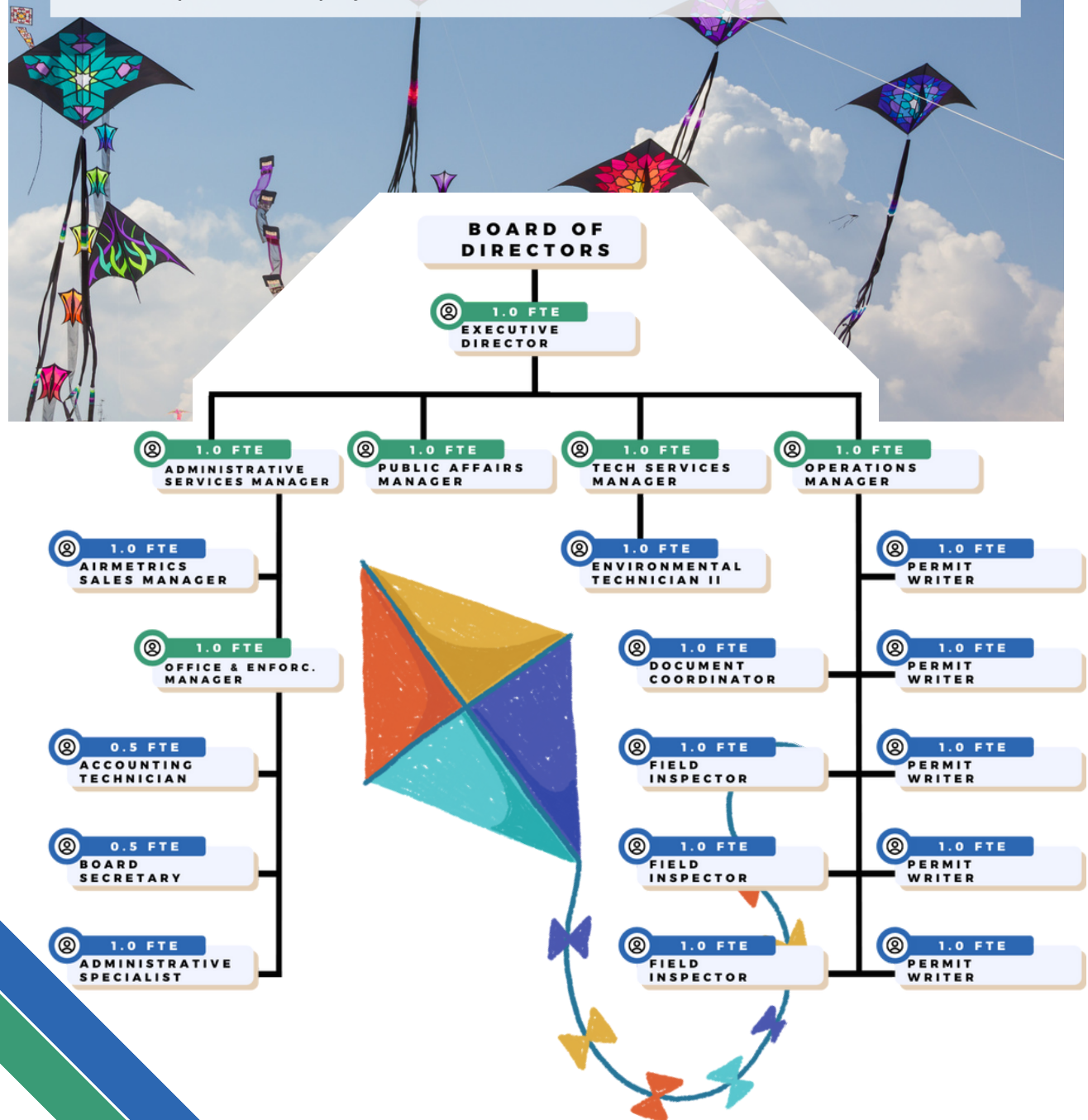
CITIZENS ADVISORY COMMITTEE FOR 2021

LRAPA's Citizens Advisory Committee is a group of volunteers, the size ranges between at least seven and no more than 15 members, from varying backgrounds in Lane County including: public health, planning, industry, agricultural, fire suppression, and general interest. The Citizens Advisory Committee meets monthly on the final Tuesday of each month (no meetings generally occur in August or December), to discuss air quality topics and help guide the agency and LRAPA's Board of Directors. These meetings are open to the public with opportunity for public statements at the start of each meeting.



DEPARTMENTS & STAFFING

LRAPA's staff size has varied throughout its years as annual budget adjustments accounted for economic fluctuations. At the highest, the agency staffed 23 fulltime equivalent employees in 2008. The lowest, in 2014, LRAPA staffed only 13 fulltime equivalent employees. In 2021, LRAPA was staffed by 19 fulltime equivalent employees.



BUDGET & FINANCES

FOR FISCAL YEAR 2021

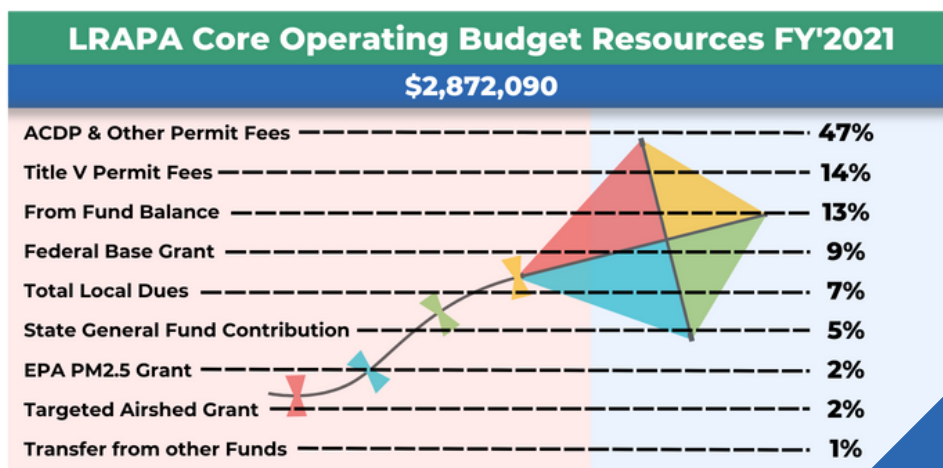
LRAPA's budget is reviewed and determined each year by the Budget Committee. This 18-member committee is made up of LRAPA's nine Board of Directors plus nine Board-appointed citizens representing the same jurisdictions as their Board member appointee.



Budget committee meetings take place in March and April of each year, with the possibility for a May meeting if needed. During these meetings – which are open to the public – the Budget Committee reviews the proposed budget, ask questions, and recommended changes.

After revisions from these meetings are implemented into the proposed budget, the Budget Committee takes a vote to approve the budget. Once complete, a public hearing is scheduled to receive and record public testimony for consideration by LRAPA's Board of Directors. The Board then votes on a resolution to adopt the budget. The Board is required by state law to adopt the next year's budget by June 30.

Despite fluctuations in funding throughout the years, LRAPA has succeeded in its mission to advocate for the continuous improvement of air quality in Lane County. The airsheds in our jurisdiction have seen significant improvement over the last decade due to LRAPA's commitment and efforts to deliver on its mission and responsibilities to all of Lane County's diverse communities.



PERMITTING & CLEANER AIR OREGON

One of LRAPA's important functions in Lane County is to administer and enforce operational air permits issued to industrial and commercial businesses in Lane County. LRAPA has 303 permitted sources; of those 284 hold Air Contaminant Discharge Permits (ACDP), 14 are Title V Federal Operating Permits, and three are Registered Sources. Gasoline dispensing activities account for 37% of ACDPs.

LRAPA issues operational air permits for a variety of activities in Lane County, such as: wood products manufacturing, chemical products manufacturing, mineral products manufacturing, metal products manufacturing, water treatment, fuel burning, fuel transfer operations, coating operations, and other sources of toxic air pollutants. LRAPA's rules and regulation cannot be less stringent than federal and state rules and regulations.



ISSUED/RENEWED

14 PERMITS



INSPECTED

63 FACILITIES



MODIFIED

56 PERMITS

Cleaner Air Oregon (CAO) is a statewide air regulatory program designed to incorporate health-based standards for air toxics emissions into operational air permits from stationary, non-mobile emission sources. The program was created to regulate air toxic contaminants and protect public health. In addition to closing gaps in existing air quality rules, CAO provides greater public access to air toxics emissions data and creates more certainty for regulated facilities in addressing community health concerns.

LRAPA implements CAO in Lane County. LRAPA's Board of Directors adopted the program by reference to the Oregon Department of Environmental Quality's state rules in 2019.

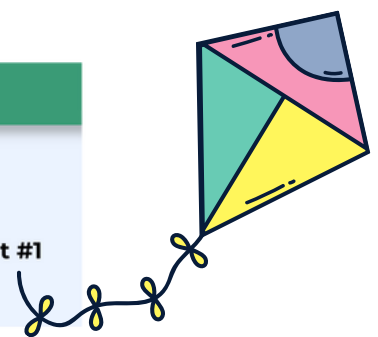
Lane County Facilities called-in to CAO

Facilities called-in prior to 2021

- J.H. Baxter
- Seneca Sustainable Energy, LLC
- The Willamette Valley Company

Facilities called-in during 2021

- Hexion, Inc.
- Emerald Forest Products, Inc. Plant #1
- Arcimoto, Inc.



Community engagement is a core tenant of Cleaner Air Oregon. LRAPA hosted a public community meeting in June of 2021 to outline the program, describe how it regulates based on health risk, and connect residents with LRAPA's resources to stay informed.

LRAPA also hosted a community meeting on the results of Seneca Sustainable Energy's Risk Assessment in September of 2021. This engagement was not required by CAO, but LRAPA conducted a meeting anyway in an effort to provide information to community members who expressed concern and desire for additional information on the facility.

ASBESTOS ABATEMENT

What is asbestos?			Why be concerned about asbestos?
Asbestos is a group of minerals. It is made of strong, very fine fibers that are heat-resistant and extremely durable. When asbestos material is disturbed or damaged, asbestos can break down into a dust of microscopic fibers that remain suspended in the air for extended periods and can easily be inhaled or ingested.			Asbestos can cause lung cancer, asbestosis and mesothelioma. There is no safe level of exposure, so contact with any amount of friable asbestos should be avoided. Asbestos which is stable, not damaged and sealed it is considered safe. When it is exposed and crushable it is called friable and is not safe.
Where is asbestos located?			How is asbestos removed?
Asbestos can be commonly found in insulation, window putty, spackling, flooring materials, roofing shingles, ceilings, sheetrock, drywall, air duct covering, pipe insulation, and more.			Removing asbestos requires special equipment and detailed training. It is expensive and time consuming for a homeowner. LRAPA recommends hiring a professional asbestos abatement contractor who has special training to remove asbestos containing materials.

LRAPA's Asbestos permit and inspection program handles hundreds of abatement notices per year. 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 LRAPA's Title 43 regulations.

Asbestos Notices Received in 2021			
434			
 Schools	20	11	Colleges 
 Residences	248	9	Industry 
 Commercial	133	13	Other 



ASBESTOS INSPECTIONS

104



FEES RECEIVED

\$182,813.50

COMPLAINTS & ENFORCEMENT

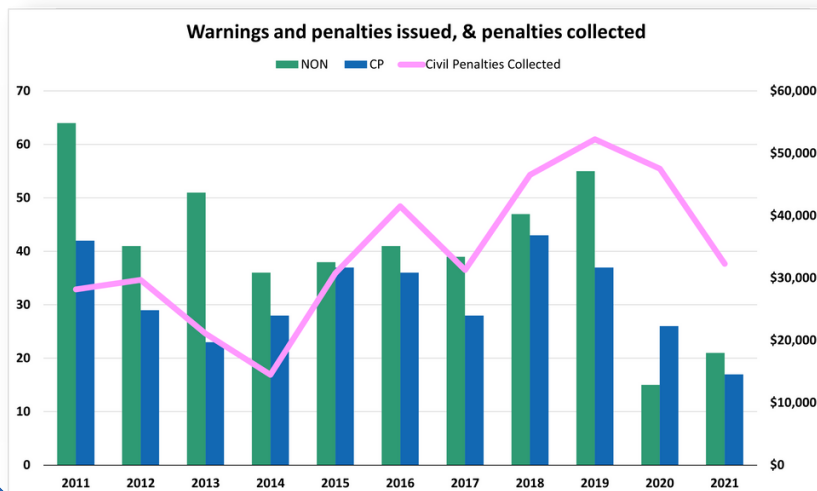
One primary service LRAPA provides to Lane County is to receive, record, and investigate air quality complaints submitted to the agency. Complaints can be made on our website, over the phone, or via e-mail. In 2021 LRAPA investigated 98% of the 799 air quality complaints received.

LRAPA Air Quality Complaints 2011-2021											
	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
DUST	33	44	30	14	25	32	25	26	15	17	26
AG/FIELD BURNING	13	1	17	4	12	9	1	0	6	2	7
GENERAL AIR QUALITY	6	6	26	30	15	20	14	6	12	4	8
HOME WOOD HEATING	135	95	219	121	342	130	194	126	128	74	57
INDUSTRY	169	128	122	127	52	58	74	50	170	100	337
MISCELLANEOUS	101	79	52	57	85	164	138	66	67	59	40
OUTDOOR BURNING	341	268	321	279	251	266	281	351	402	423	243
SLASH BURNING	16	7	5	7	11	26	13	24	16	12	10
UNKNOWN	25	17	14	35	46	56	63	29	39	74	71
TOTAL	839	645	806	674	839	761	806	678	855	765	799



LRAPA can initiate enforcement in instances of industrial or commercial air permit violations, illegal open burning activities, improper handling or transport of asbestos-containing materials, failure to obtain necessary air permits prior to construction or operation of equipment, exceeding opacity limits from woodstove and chimneys, and burning prohibited materials. The dollar amount of penalties collected annually does not reflect the penalties assessed or settled during the year due to pending cases and collections received on previous years' penalties. Money collected from penalties is transferred to Lane County's general fund.

In 2021, LRAPA issued 21 notices of non-compliance and warning (NON), 17 notices of violations with civil penalties (CP), and collected \$32,275 in civil penalties.



WEBPAGE ADDITIONS

LRAPA.ORG

In 2021 LRAPA published an air toxic monitoring webpage to inform and educate on Lane County's most common air toxics. This page describes air toxics, explains how they're measured, where they come from, and identifies air toxics of concern in Lane County.

The page provides additional details on potential health effects for each air toxic identified, as well as historical measurements of those pollutants dating back to 2002.

AIR TOXICS MONITORING

In effort to improve the effectiveness of air quality complaints submitted to LRAPA, more clearly outline the complaint response process, as well as answer frequently received questions about air quality complaints, LRAPA published a How to File an Air Quality Complaint webpage in 2021.

Enhanced air quality complaints help improve LRAPA's ability to investigate complaints and find responsible sources.

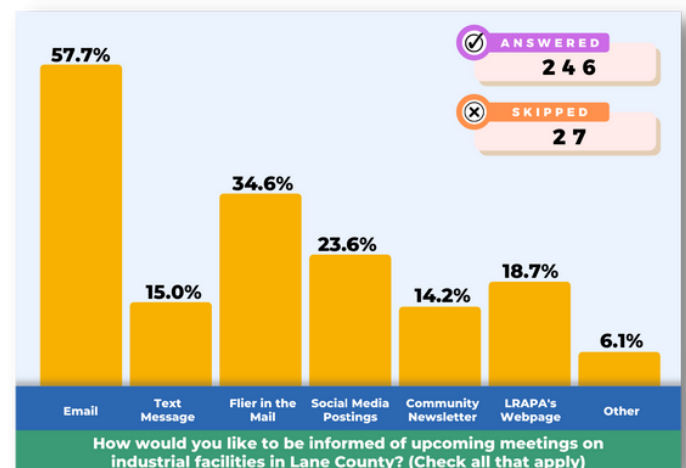
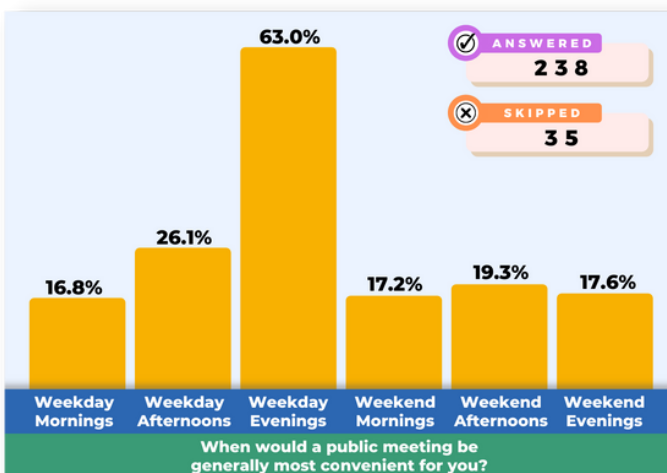
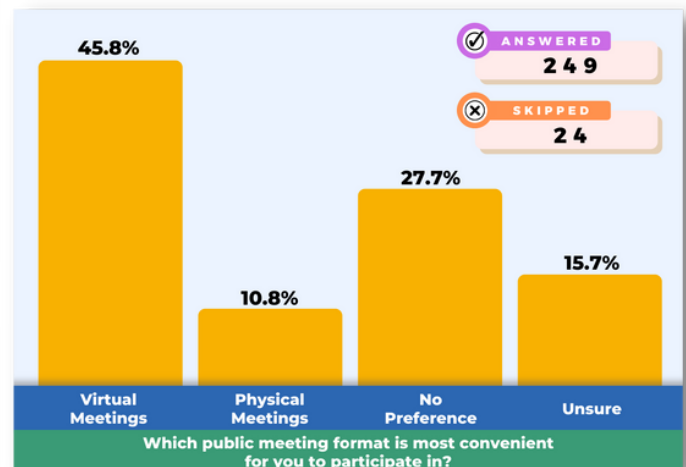
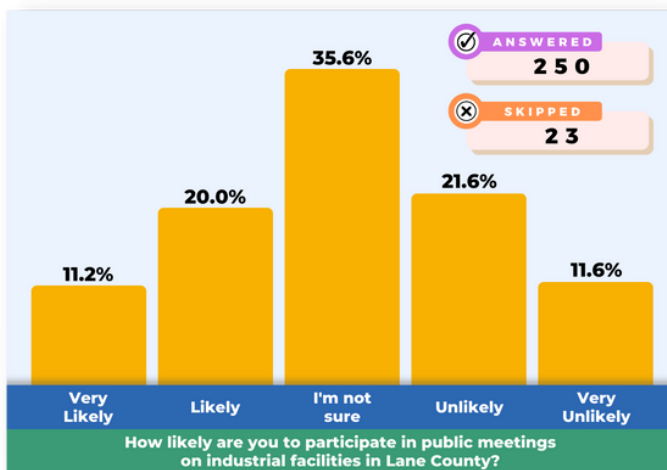
HOW TO FILE AN AIR QUALITY COMPLAINT



AIR QUALITY SURVEY

In the summer of 2021 LRAPA mailed nearly 25,000 postcards to residents who live within one mile of a facility in or soon to be in Cleaner Air Oregon. These surveys were intended to better understand resident's air quality concerns around these facilities, their familiarity with the Cleaner Air Oregon, and their desired form of outreach and notification of updates.

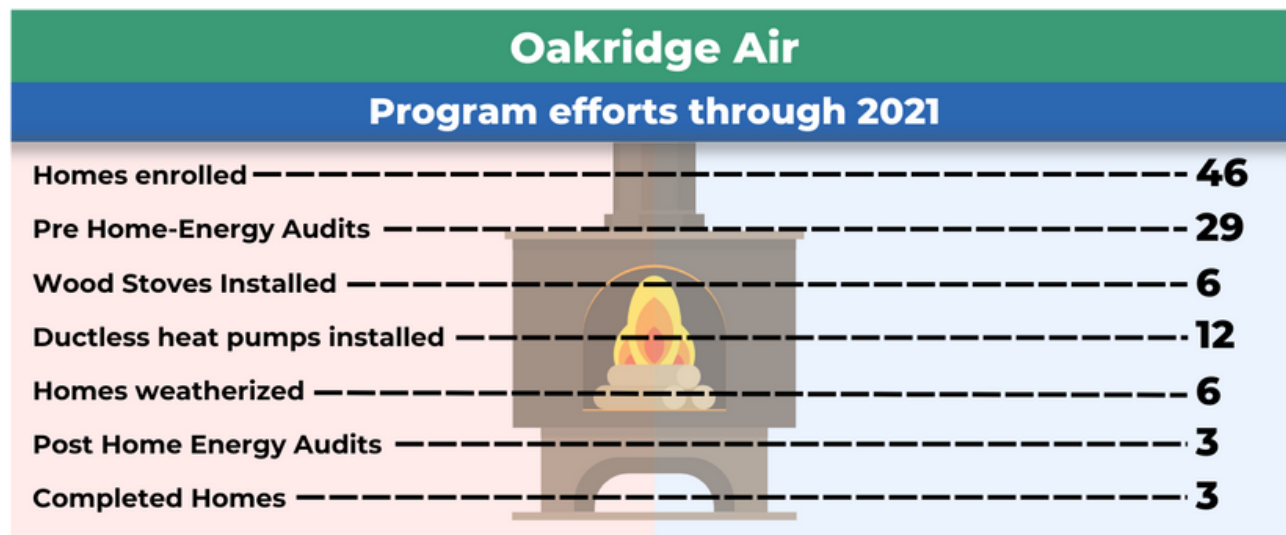
The survey was published in English and Spanish and open to responses from June 1, 2021 to September 1, 2021. In total, 273 responses were received. All questions and answers are viewable beginning on page 22 of this report.



OAKRIDGE AIR PROGRAM

OAKRIDGEAIR.ORG

The Oakridge Air program supports the Oakridge-Westfir community by connecting residents with resources that improve the area's air quality. Home heating upgrades, air filters, firewood, and education are among the resources provided. LRAPA secured \$4,938,190 in grant funding in 2019 from the Environmental Protection Agency through a Targeted Airshed Grant program.



The program funds a multitude of air pollution reduction strategies in the Oakridge and Westfir airshed including:

- Affordable dry firewood.
- Woodstove upgrades and changeouts.
- Weatherization upgrades for homes.
- Increased education in the community and schools.
- Upgraded indoor air filters in schools and residences.
- Strengthened compliance and enforcement program.
- Increased air quality monitoring and expansion of particulate air sensor use.



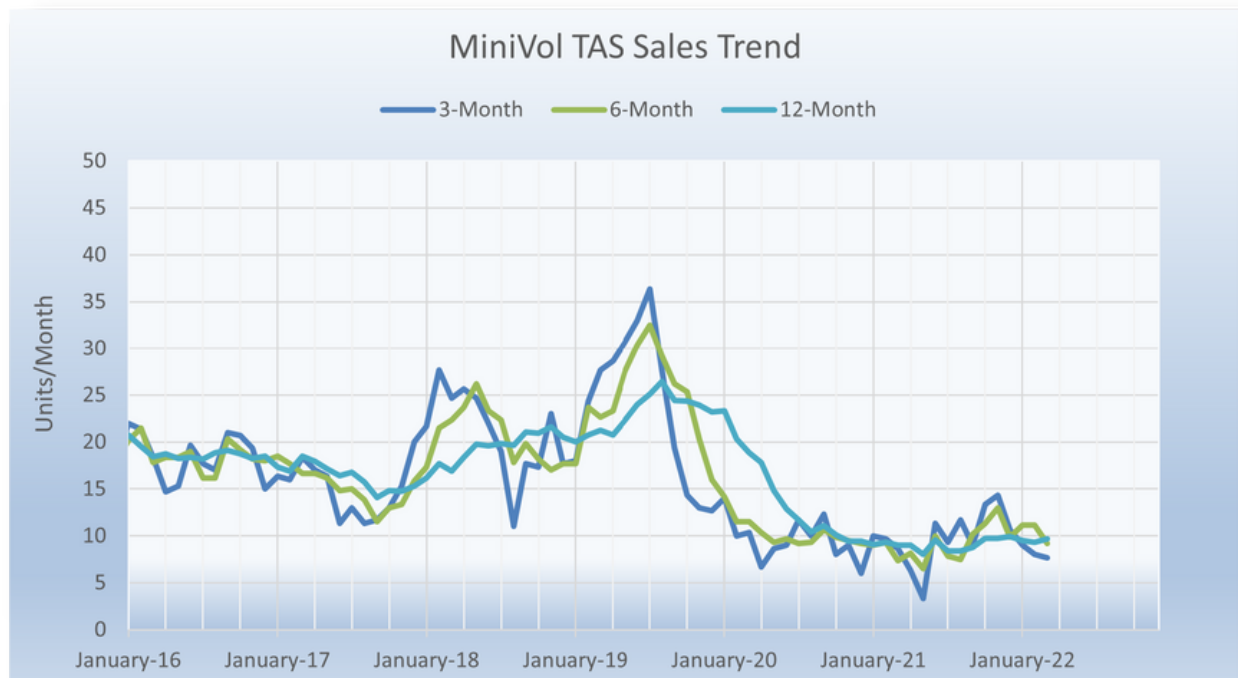
AIRMETRICS

ENTERPRISE FUND

AirMetrics is a government enterprise run by the Lane Regional Air Protection Agency. The enterprise was created as a revenue source generated by sales of the MiniVol; a low flow, filter-based, battery-powered portable air sampler. Proceeds from the enterprise are used to supplement LRAPA's budget by covering some fixed costs and providing opportunity for capital improvements.

Current users of the MiniVol include environmental consultants, domestic and international air quality authorities, government agencies and universities around the world. The MiniVol has proven to be effective in mining operations, prescribed burns, fugitive dust studies and remediation sites after Hurricane Katrina. In 2020 the MiniVol was implemented as the active air sampler in a proposed method for identifying the presence of microplastics in indoor and outdoor air.

MiniVol sales are heavily reliant on international customers, in particular the Asia Market. Sales of the MiniVol decreased during the COVID-19 pandemic and have not rebounded to pre-pandemic numbers. Annual sampler sales averaged 236 units for five years leading up to FY 2019. Since the pandemic began, the annual sampler sales average has declined to 114 units. Expanding the customer base, adding to the product line and finding new applications for the MiniVol are paramount to the company's viability.

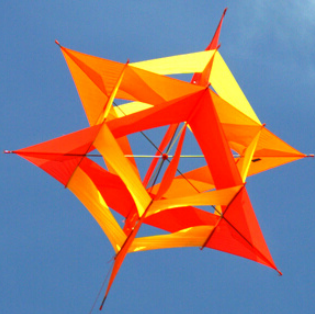
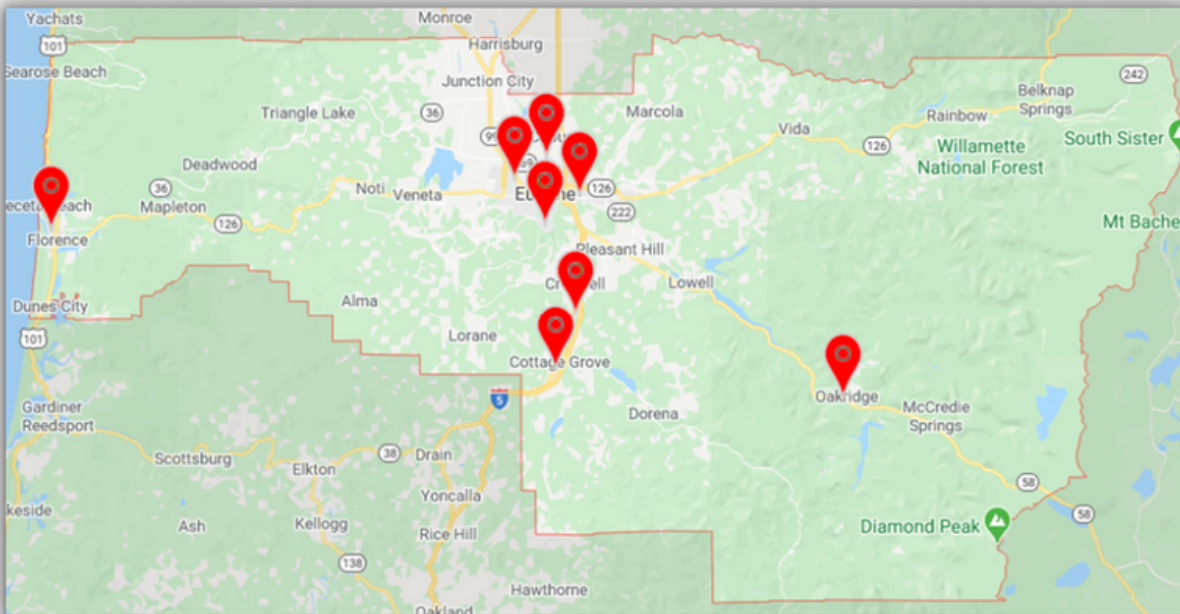


LANE COUNTY AIR MONITORING

LRAPA's air quality monitoring network consists of eight stationary sites measuring a variety of air pollutants and meteorological parameters. The agency currently collects over 750,000 hours of pollutant, and meteorological, related data each year.

At an estimated operations costs of over \$500,000 a year, LRAPA's network provides Lane County with comprehensive data on local air quality. The network includes three locations in Eugene, and one in Springfield, Oakridge, Cottage Grove, Saginaw, and Florence. Monitoring stations have special instruments to measure specific pollutants in the air.

LRAPA measures particulate matter at seven sites in Lane County: west Eugene, north Eugene, south Eugene, downtown Springfield, Cottage Grove, Oakridge, and Florence. Ozone concentrations are measured at Amazon Park in south Eugene and in Saginaw during Ozone season which begins May 1 and ends September 1. LRAPA also samples for a variety of toxic air pollutants to track trends and look for elevated levels of these pollutants in our area. In 2021 LRAPA monitored for air toxics at our Highway 99 and Elmira Rd site and Amazon Park site.



LRAPA has installed over 90 commercial grade Purple Air sensors across Lane County. While these sensors do not meet federal requirements for sampling and analyzing ambient air for Particulate Matter, they are accurate enough to correctly inform the public of the current air quality. Find the closest Purple Air sensor in your neighborhood by visiting:

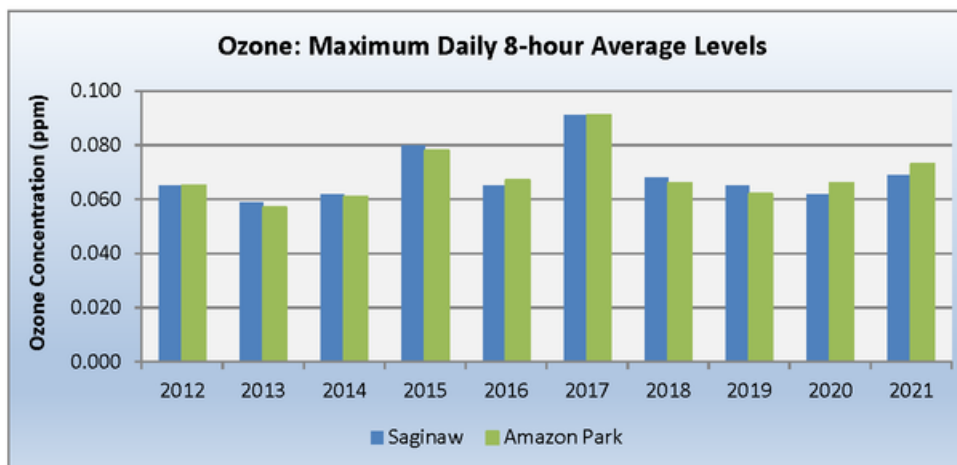
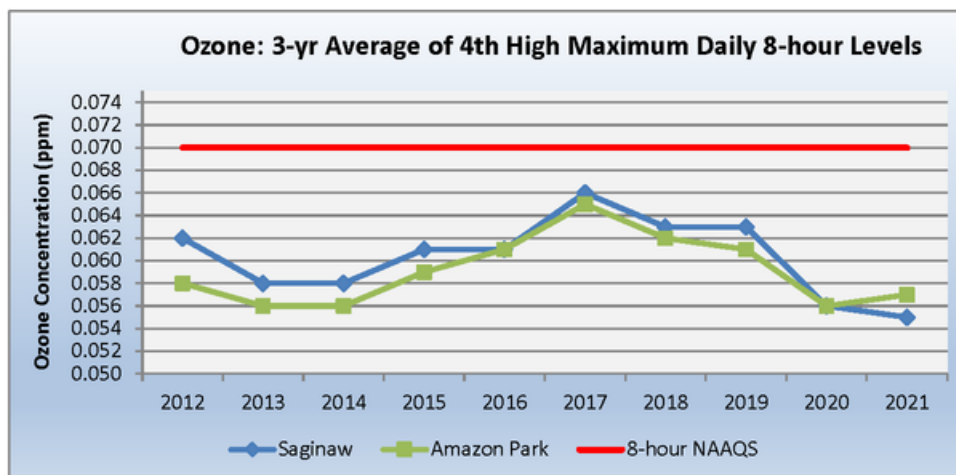
<https://fire.airnow.gov>

OZONE MONITORING

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 2012 – 2021 (ppm)											
Site Name		2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Saginaw	Maximum	0.065	0.059	0.062	0.080	0.065	0.091	0.068	0.065	0.062	0.069
	4th highest	0.062	0.058	0.058	0.071	0.056	0.073	0.061	0.055	0.052	0.060
	3-year 4th high	0.060	0.058	0.058	0.061	0.061	0.066	0.063	0.063	0.056	0.055
	# Exceedances	0	0	0	4	0	4	0	0	0	0
Amazon Park	Maximum	0.065	0.057	0.061	0.078	0.067	0.091	0.066	0.062	0.066	0.073
	4th highest	0.059	0.053	0.058	0.068	0.058	0.070	0.060	0.055	0.055	0.062
	3-year 4th high	0.058	0.057	0.056	0.059	0.061	0.065	0.062	0.061	0.056	0.057
	# Exceedances	0	0	0	3	0	3	0	0	0	0



PARTICULATE MATTER 2.5

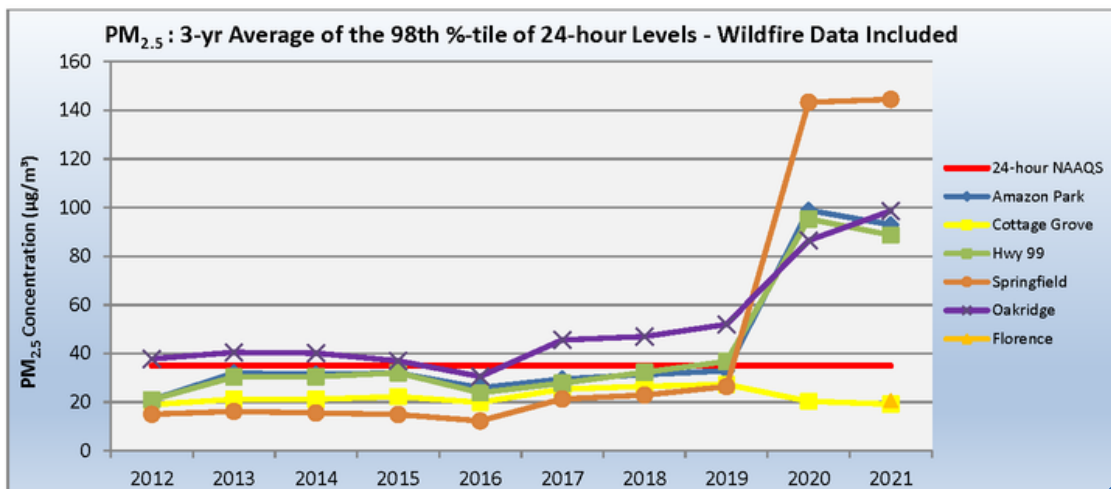
WITH WILDFIRE DATA

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 PM _{2.5} 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 2012 - 2021 (µg/m ³)											
Site Name		2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Amazon Park	Annual mean	6.4	7.8	7.2	7.4	5.4	9.0	7.5	7.3	14.9	5.5
	Highest 24-hour	31.6	51.9	35.5	55.3	38.2	145.3	40.4	30.1	528.3	21.7
	Annual 98 th %-ile	25.4	38.6	30.7	26.7	20.3	41.6	32.0	25.3	239.5	14.1
	3 year 98 th %-ile	21	28	32	32	26	30	31	33	99	93
Cottage Grove City Shops	Annual mean	6.7	7.5	6.9	7.3	5.8	8.8	7.8	7.3	13.3	6.1
	Highest 24-hour	24.7	38.1	34.0	39.6	26.2	116.0	43.5	29.1	499.2	45.0
	Annual 98 th %-ile	17.0	25.4	21.3	20.1	18.3	37.7	23.7	20.5	16.8	20.3
	3 year 98 th %-ile	19	21	21	22	20	25	27	28	20	19
Florence*	Annual mean	---	---	---	---	---	---	---	5.8	7.7	3.8
	Highest 24-hour	---	---	---	---	---	---	---	15.3	425.3	10.2
	Annual 98 th %-ile	---	---	---	---	---	---	---	12.2	42.5	7.0
	3 year 98 th %-ile	---	---	---	---	---	---	---	---	---	21
Hwy 99 - Four Corners	Annual mean	6.5	8.3	7.2	8.0	5.7	10.9	8.7	8.0	14.9	6.6
	Highest 24-hour	30.0	54.6	43.6	56.4	18.0	330	45.6	30.9	454.2	36.9
	Annual 98 th %-ile	20.6	40.2	30.5	25.6	15.5	42.5	38.9	28.9	218.2	19.1
	3 year 98 th %-ile	21	28	30	32	24	28	33	37	95	89
Springfield City Hall*	Annual mean	5.5	6.3	6.4	6.3	4.7	12.1	6.1	6.6	21.9	6.2
	Highest 24-hour	18.3	18.8	35.6	54.0	10.4	286.8	18.2	21.0	589.3	53.2
	Annual 98 th %-ile	15.3	17.2	14.2	13.3	9.4	41.4	18.1	19.7	392.2	21.6
	3 year 98 th %-ile	15	16	15	15	12	21	23	26	143	145
Oakridge	Annual mean	7.6	9.8	10.0	8.9	6.7	13.0	9.0	9.2	14.4	9.9
	Highest 24-hour	49.9	54.9	46.1	39.3	30.7	200.0	62.0	42.0	576.6	134.3
	Annual 98 th %-ile	38.4	41.0	41.1	28.9	21.7	35.7	33.2	36.7	189.5	69.8
	3 year 98 th %-ile	38	41	40	37	31	46	47	52	87	99

*non-reference method sampler, if levels approach the NAAQS, reference method sampler will be installed.



PARTICULATE MATTER 2.5

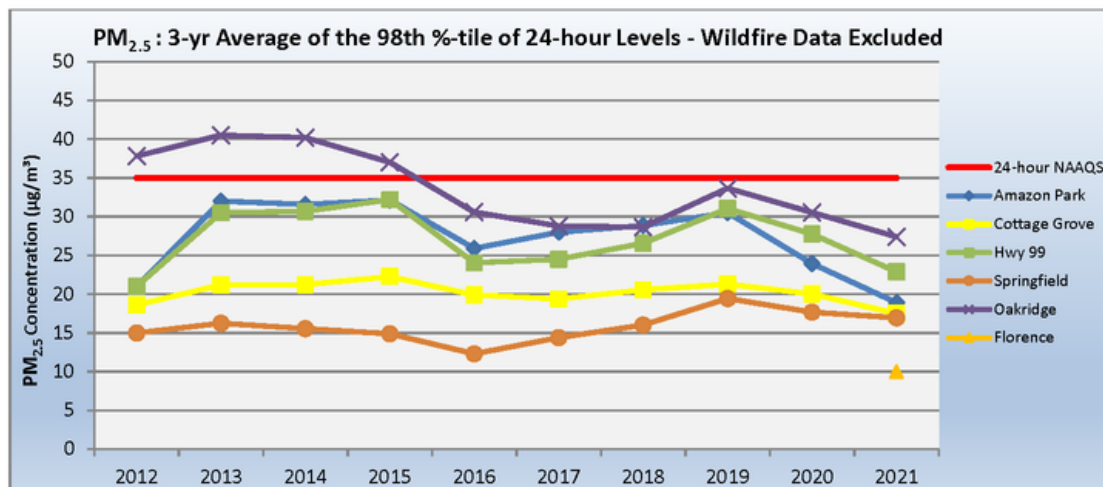
WITHOUT WILDFIRE DATA

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 PM _{2.5} 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 2012 - 2021 (µg/m ³)											
Site Name		2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Amazon Park	Annual mean	6.4	7.8	7.2	7.4	5.4	7.0	7.5	7.3	5.8	5.5
	Highest 24-hour	31.6	51.9	35.5	55.3	38.2	41.6	40.4	30.1	26.2	21.7
	Annual 98 th %-ile	25.0	39.0	30.7	26.7	20.3	37.0	29.2	25.3	17.3	14.1
	3 year 98 th %-ile	21	28	32	32	26	28	31	33	24	19
Cottage Grove City Shops	Annual mean	6.7	7.5	6.9	7.3	5.8	6.8	7.8	7.3	6.1	5.9
	Highest 24-hour	24.7	38.1	34.0	39.6	26.2	27.7	43.5	29.1	16.8	45.0
	Annual 98 th %-ile	17.0	25.4	21.3	20.1	18.3	19.7	23.7	20.5	15.9	16.1
	3 year 98 th %-ile	19	21	21	22	20	19	27	28	20	18
Florence	Annual mean	---	---	---	---	---	---	---	5.8	4.3	3.8
	Highest 24-hour	---	---	---	---	---	---	---	15.3	20.7	10.2
	Annual 98 th %-ile	---	---	---	---	---	---	---	12.2	10.8	7.0
	3 year 98 th %-ile	---	---	---	---	---	---	---	---	---	10
Hwy 99 - Four Corners	Annual mean	6.5	8.3	7.2	8.0	5.7	7.2	8.7	8.0	6.9	6.3
	Highest 24-hour	30.0	54.6	43.6	56.4	18.0	46.8	45.6	30.9	31.2	31.5
	Annual 98 th %-ile	21.0	40.0	31.0	25.6	15.5	32.4	31.8	28.9	22.6	17.1
	3 year 98 th %-ile	21	28	30	32	24	25	30	37	28	23
Springfield City Hall	Annual mean	5.5	6.3	6.4	6.3	4.7	6.2	6.1	6.6	5.7	5.9
	Highest 24-hour	18.3	18.8	35.6	54.0	10.4	27.9	18.2	21	24.2	22.3
	Annual 98 th %-ile	15.3	17.2	14.2	13.3	9.4	20.5	18.1	19.7	15.2	15.9
	3 year 98 th %-ile	15	16	15	15	12	14	16	26	18	17
Oakridge	Annual mean	7.6	9.8	10.0	8.9	6.7	8.8	8.5	9.2	7.5	6.3
	Highest 24-hour	49.9	54.9	46.1	39.3	30.7	41.6	35.3	42.0	38.5	24.1
	Annual 98 th %-ile	38.4	41.0	41.1	28.9	21.7	35.7	28.6	36.7	26.2	19.2
	3 year 98 th %-ile	38	41	40	37	31	29	29	34	31	27

*non-reference method sampler, if levels approach the NAAQS, reference method sampler will be installed.



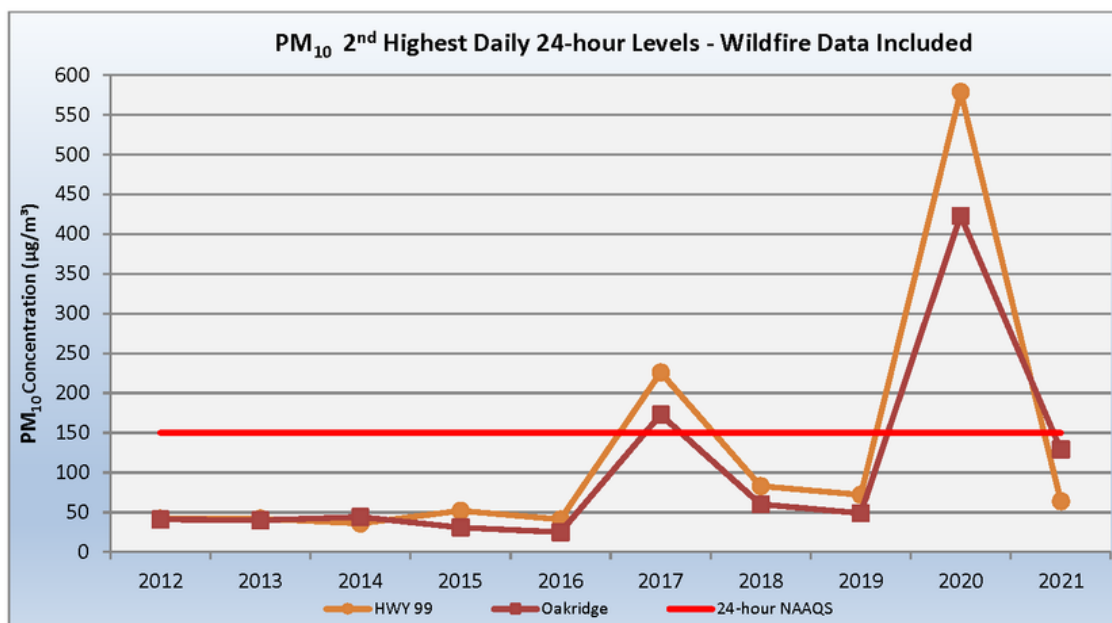
PARTICULATE MATTER 10

WITH WILDFIRE DATA

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

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

PM ₁₀ Levels 2012 - 2021 (µg/m ³)											
Site Name		2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Hwy 99	Highest 24-hour	46	59	42	96	56	239	134	77	587	66
	2 nd Highest 24-hour	42	42	36	52	41	226	83	72	579	64
	Exceedances	0.0	0.0	0.0	0.0	0.0	3.0	0.0	0.0	10.1	0.0
	3yr Avg. of Exceedances	0.0	0.0	0.0	0.0	0.0	1.0	1.0	1.0	3.4	3.4
Oakridge	Highest 24-hour	44	53	51	37	30	210	76	53	591	157
	2 nd Highest 24-hour	41	40	44	31	25	173	60	49	423	129
	Exceedances	0.0	0.0	0.0	0.0	0.0	4.3	0.0	0.0	8.1	1.0
	3yr Avg. of Exceedances	0.0	0.0	0.0	0.0	0.0	1.4	1.4	1.4	2.7	3.0



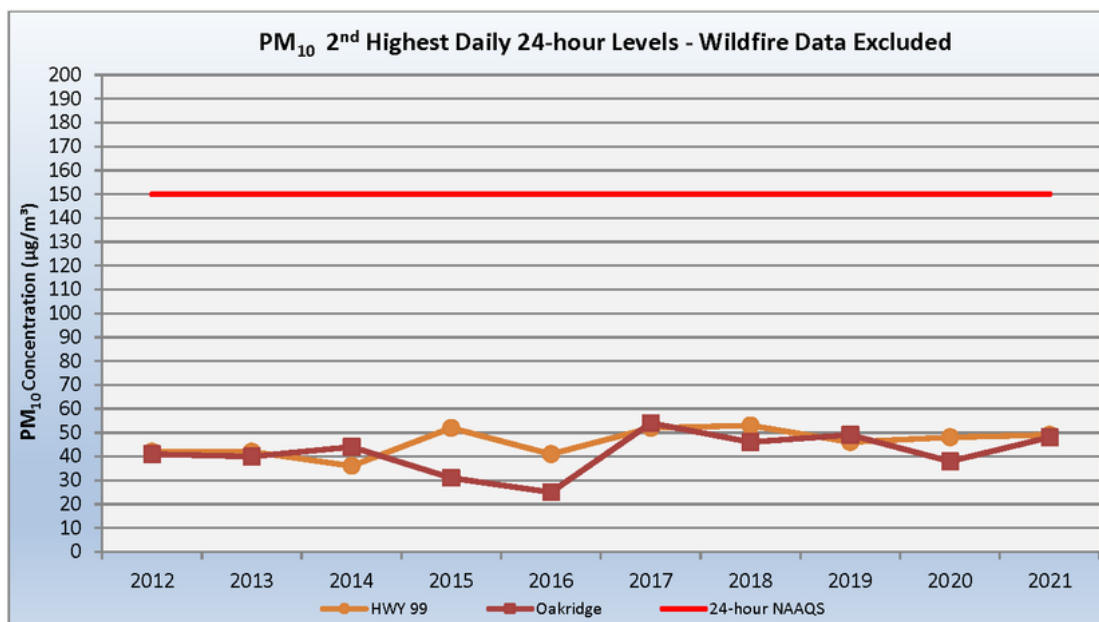
PARTICULATE MATTER 10

WITHOUT WILDFIRE DATA

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 2012 - 2021 ($\mu\text{g}/\text{m}^3$)											
Site Name		2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Hwy 99	Highest 24-hour	46	59	42	96	56	69	59	77	59	49
	2 nd Highest 24-hour	42	42	36	52	41	58	58	72	57	49
	Exceedances	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	3yr Avg. of Exceedances	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Oakridge	Highest 24-hour	44	53	51	37	30	96	76	53	98	49
	2 nd Highest 24-hour	41	40	44	31	25	84	60	49	48	48
	Exceedances	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	3yr Avg. of Exceedances	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



LRAPA AIR SURVEY

RAW DATA

In 2021 LRAPA published a survey to better understand Lane County resident's opinion of the air quality in their neighborhood and concerns. This survey is a tool to inform LRAPA's community outreach efforts on facilities moving through Cleaner Air Oregon.

The survey was published in English and Spanish and open to responses from June 1, 2021 to September 1, 2021. In addition to a social media campaign, and coordination with the environmental advocacy group Beyond Toxics to promote the survey, LRAPA mailed 24,926 postcards to residential addresses located within 1 mile of the following addresses:

- 470 S. 2nd St., Springfield, Or. 97477
- 3494 Roosevelt Blvd., Eugene, OR 97402
- 800 48th St, Springfield, OR 97478
- 29650 East Enid Road, Eugene, Oregon, 97402
- 660 McKinley St. Eugene, Oregon, 97402
- 2350 Prairie Rd, Eugene, OR 97402
- 5305 Royal Ave, Eugene, OR 97402

In total, 273 surveys were submitted to LRAPA.

Question 1

The quality of the air in Lane County is important to me.			
Answered	273	Skipped	0
Strongly Agree	231		
Agree	39		
Don't Know	1		
Disagree	1		
Strongly Disagree	1		

Question 2

Air quality in Lane County is generally good.			
Answered	271	Skipped	2
Strongly Agree	33		
Agree	141		
Don't Know	22		
Disagree	61		
Strongly Disagree	14		

LRAPA AIR SURVEY

RAW DATA

Question 3

Air quality in Lane County is generally bad.			
Answered	271	Skipped	2
Strongly Agree			15
Agree			56
Don't Know			38
Disagree			127
Strongly Disagree			35

Question 4

The air outside of my home negatively impacts my health.			
Answered	269	Skipped	4
Strongly Agree			53
Agree			72
Don't Know			45
Disagree			74
Strongly Disagree			25

Question 5

Poor air quality in Lane County occurs mostly during wildfire season.			
Answered	272	Skipped	1
Strongly Agree			65
Agree			95
Don't Know			31
Disagree			75
Strongly Disagree			29

Question 6

The burning of woody yard debris (outdoor burning) is a major contributor to poor air quality in Lane County.			
Answered	272	Skipped	1
Strongly Agree			37
Agree			80
Don't Know			89
Disagree			49
Strongly Disagree			17

LRAPA AIR SURVEY

RAW DATA

Question 7

Wood stoves and fireplaces are major contributors to poor air quality in Lane County.			
Answered	271	Skipped	2
Strongly Agree			32
Agree			91
Don't Know			76
Disagree			53
Strongly Disagree			19

Question 8

Pollution from industrial activities is a major contributor to poor air quality in Lane County.			
Answered	272	Skipped	1
Strongly Agree			100
Agree			84
Don't Know			57
Disagree			21
Strongly Disagree			10

Question 9

Diesel fuel/highway traffic is a major contributor to poor air quality in Lane County.			
Answered	271	Skipped	2
Strongly Agree			60
Agree			110
Don't Know			58
Disagree			30
Strongly Disagree			13

Question 10

Poor air quality in Lane County is a significant environmental issue.			
Answered	272	Skipped	1
Strongly Agree			104
Agree			88
Don't Know			35
Disagree			30
Strongly Disagree			15

LRAPA AIR SURVEY

RAW DATA

Question 11

How familiar are you with the air permitting program called Cleaner Air Oregon?			
Answered	251	Skipped	22
Very familiar	12		
Somewhat familiar	40		
Vaguely familiar	58		
I've never heard of Cleaner Air Oregon	141		

Question 12

How interested are you to learn more about industrial facilities, their emissions, and potential health risk from air emissions in Lane County?			
Answered	250	Skipped	23
Very interested	105		
Somewhat interested	98		
Only interested in facilities near me	25		
Not interested at all	22		

Question 13

How likely are you to participate in public meetings on industrial facilities in Lane County?			
Answered	250	Skipped	23
Very likely	28		
Likely	50		
I'm not sure	89		
Unlikely	54		
Very unlikely	29		

Question 14

Which public meeting format is most convenient for you to participate in?			
Answered	249	Skipped	24
Virtual meetings (on platforms like Zoom)	114		
Physical, in-person, meetings (at locations such as a public library)	27		
No preference, either is fine	69		
Unsure	39		

LRAPA AIR SURVEY

RAW DATA

Question 15

When would a public meeting be generally most convenient for you?			
Answered	238	Skipped	35
Weekday mornings	40		
Weekday afternoons	62		
Weekday evenings	150		
Weekend mornings	41		
Weekend afternoons	46		
Weekend evenings	42		

Question 16

How do you generally learn of local events and news in Lane County? (Check all that apply)			
Answered	249	Skipped	24
Word of mouth	101		
Social media	127		
Local print and newspapers	93		
Local TV and news broadcasts	93		
Local radio and news programs	110		
Community bulletin boards, such as at the local library	17		
Fliers delivered in the mail	108		
Other (please specify)	29		
beyond toxics emails. website internet news Newsletters from agencies that I subscribe to. News apps Google Nextdoor Digest and FaceBook Internet news Chamber of Commerce Email YOUR POSTCARDS government websites/event calendars web google feed email My peers In eugene city hall Reddit Next door website Its hard to keep up. Fliers suit me best because it gets my direct attention. That is the only way I want to get it. Postcard flier would be great. Internet Emails from activist in the community email notifications Online news Never seen anything in the local paper Web search emails to me Beyond Toxics email Email newsletters			

LRAPA AIR SURVEY

RAW DATA

Question 17

How would you like to be informed of upcoming meetings on industrial facilities in Lane County? (Check all that apply)			
Answered	246	Skipped	27
Email notification		142	
Text message		37	
Flier delivered in the mail		85	
Posting on social media		58	
In a community newsletter		35	
Checking LRAPA's webpage		46	
Other (please specify)		15	
Not applicable newspaper, news release local tv or radio Pubic meeting notices in newspaper or poascard I wouldn't, I don't think air quality is an issue here. KLCC N/A TV public service announcement Door to door visitations Don't bother I like fliers best. Home bound...unable to attend any meetings. don't want to participate but the paper mill is choking me to death In our local paper would already know			

Question 18

Would you like to be added to LRAPA's email/text list and be notified when facilities move through the Cleaner Air Oregon program, as well as be advise of opportunities for public engagement on facilities in Lane County?			
Answered	249	Skipped	24
Email notification		148	
Text message		101	

LRAPA AIR SURVEY

RAW DATA

Question 19

What social media platforms do you use? (Check all that apply)			
Answered	227	Skipped	46
Facebook			148
Twitter			36
Instagram			72
Snapchat			9
Nextdoor			61
TikTok			14
Other (please specify)			53
None email/messages linked in None of the above. social media is wrecking society none NONE. Not enough money in the world to convince me to participate in "social media" which is mostly disinformation and cyber bullying Reddit Reddit None I do not interact on social media. none None None Non None None none Parler NONE reddit None None regularly None Reddit reddit None – I do not use social media None Reddit, discord none of the above none Rumble, Bitchute, Parler None NONE None of that crap none None. All are trashy. none None None None Reddit None Parler NONE None none None None of these DO NOT USE SOCIAL MEDIA email None None			

Question 20

What social media platform do you use the most? (Check one)			
Answered	231	Skipped	42
Facebook			117
Twitter			13
Instagram			24
Snapchat			1
Nextdoor			18
TikTok			3
Other (please specify)			55
google messaging None of the above social media is wrecking society none NONE. ABSOLUTELY LOATHE DETEST AND DESPISE ALL FORMS OF SOCIAL MEDIA PURVEYORS OF TRASH Reddit None I am not a big user at all I have not need for social media. none N/a None Don't have any of those None Infrequent user of Facebook None don't do social media Parler NONE reddit None None None Reddit non of the above reddit none None none None Parler None NONE None etc none Cancelled all because of hateful people. none I don't use them None None Reddit None None None none none None None of these dreamwidth.org NONE email I don't use social media None None i try not to use them			

LRAPA AIR SURVEY

RAW DATA

Question 21

Do you experience challenges paying for heat in the winter?			
Answered	244	Skipped	29
Always			8
Sometimes			46
Rarely			55
Never			135

Question 22

Do you, or anyone in your home, experience chronic respiratory or heart conditions?			
Answered	246	Skipped	27
Yes, lungs			76
Yes, heart			17
Both			10
None			143

Question 23

What sources of energy do you use to heat your home? (Check all that apply)			
Answered	246	Skipped	27
Electric			211
Gas			84
Propane			5
Solar			7
Biomass (wood stove/pellet stove/fireplace)			33
Other (please specify)			10
Catalytic fireplace insert Ceiling heat Geothermal heat pump gas fireplace old apartment with ceiling heat. heat pump Portable heater wind Natural Gas			

Question 24

Do you have a wood stove, pellet stove, or fireplace in your home? (Check all that apply)			
Answered	245	Skipped	28
Wood stove			25
Pellet stove			6
Fireplace			80
I do not have any of the above			139

LRAPA AIR SURVEY

RAW DATA

Question 25

How often do you use your wood stove, pellet stove, or fireplace?			
Answered	108	Skipped	165
Often			21
Sometimes			48
Never			39

Question 26

How often do you use your wood stove, pellet stove, or fireplace?			
Answered	108	Skipped	165
Primary			11
Secondary			40
I do not use a wood stove/pellet stove/fireplace to heat my home			65

Question 27

Does your home have covered wood storage?			
Answered	108	Skipped	165
Yes			45
No			65

Question 28

Is your wood seasoned (stored under cover and dried for at least six months)?			
Answered	101	Skipped	172
Yes			52
Some of it, but not all of it			5
No			34
Unsure			10

Question 29

Do you rent or own your home?			
Answered	107	Skipped	166
Rent			13
Own			94

LRAPA AIR SURVEY

RAW DATA

Question 30

Does your landlord or property manager provide any information or direction in the use of your wood stove?			
Answered	14	Skipped	259
Yes		1	
No		12	
Unsure		1	

Question 31

Does your landlord or property manager clean or perform maintenance on your wood stove?			
Answered	14	Skipped	259
Yes		1	
No		8	
Unsure		5	

Question 32

If yes, how often?			
Answered	14	Skipped	259
Daily		0	
Weekly		0	
Monthly		0	
Seasonally		2	
Rarely		0	
Unsure		4	
My landlord does not clean or perform maintenance on my wood stove.		8	

Question 33

How often do you clean, and/or perform maintenance on your wood stove?			
Answered	195	Skipped	78
Daily		1	
Weekly		4	
Monthly		5	
Seasonally		40	
Rarely		10	
Never		99	
Unsure		36	

LRAPA AIR SURVEY

RAW DATA

Question 34

Are you aware of Green, Yellow, Red home wood heating days in the cities of Eugene / Springfield / Oakridge?			
Answered	229	Skipped	44
Yes		135	
No		86	
I do not live in Eugene, Springfield, Oakridge		8	

Question 35

Would you like to be added to LRAPA's email/text list and be notified when a Yellow or Red Home Wood Heating Advisory is issued for Eugene and Springfield?			
Answered	234	Skipped	39
Yes		53	
No		181	

Question 36

What is your age?			
Answered	234	Skipped	39
19 and under		0	
20-24		2	
25-29		12	
30-34		25	
35-39		22	
40-44		19	
45-49		11	
50-54		15	
55-59		20	
60-64		32	
65-69		27	
70-74		24	
75-79		12	
80 and up		3	
Prefer not to answer		10	

LRAPA AIR SURVEY

RAW DATA

Question 37

What is your gender?			
Answered	233	Skipped	40
Female			131
Non-binary			2
Male			85
Prefer to not answer			15
Prefer to self-describe			3
spooses (2) why do you provide an idiotic non-binary. Quit being so politically incorrect I am male. There are two sexes, male and female. Rare circumstances biologically occurs super rarely . Gender is a view of one's self. Sex is biological fact.			

Question 38

What is your race/ethnicity?			
Answered	233	Skipped	40
African American/Black			1
Asian/Pacific Islander			3
Caucasian/White			185
Hispanic/Latino			6
Native American/Alaskan native			2
Multiple Ethnicities			15
Prefer not to answer			24

Question 39

What is your zip code?			
Answered	233	Skipped	40
97401			7
97402			83
97403			4
97404			28
97405			47
97439			3
97477			37
97478			15

LRAPA AIR SURVEY

RAW DATA

Question 40

What area of Eugene/Springfield do you live in?			
Answered	226	Skipped	47
Eugene – Bethel-Danebo			47
Eugene – Churchhill			20
Eugene – College Hill			0
Eugene – Downtown Eugene			9
Eugene – Fairmount			0
Eugene – Ferry Street Bridge			5
Eugene – Friendly Area			4
Eugene – Gilham			1
Eugene – Laurel Hill Valley			1
Eugene – River Road			12
Eugene – Santa Clara			17
Eugene – South Hills			13
Eugene – Southeast Eugene			8
Eugene – Southwest Eugene			15
Eugene – University			1
Eugene – Whiteaker			4
Springfield – Gateway			1
Springfield – Glenwood			2
Springfield – North Springfield			3
Springfield – Thurston			14
Springfield – Washburne Historic District			1
Springfield – Meadow Park			4
Springfield – Kelly Butte			7
Springfield – West Kelly Butte			9
Unsure			9
I do not live in Eugene/Springfield			10