


***Lane Regional
Air Pollution Authority***

1991 Annual Report






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Lane Regional Air Pollution Authority
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Donald R. Arkell
Director

The Lane Regional Air Pollution Authority (LRAPA) was established in 1968 through an intergovernmental agreement with Lane County and the cities of Eugene and Springfield. Cottage Grove later became an active participant in the agreement.

The Authority was established to conduct an air quality program that reflects local priorities and, at the same time, meets minimum federal and state criteria for air pollution control.

LRAPA is presently the only local air pollution control agency in Oregon. This is testimony to the strong commitment held by Lane County citizens to maintain control over the county's air pollution environment.

The Authority, as do most other state and local air pollution control agencies, implements the requirements of the Federal Clean Air Act, functioning in partnership with the Oregon Department of Environmental Quality and the Environmental Protection Agency.

LRAPA exercises the statutory authority to manage the essential elements of a comprehensive air pollution control program, including planning, rule-making, enforcement and monitoring. The Authority plays an active role in community development and planning, including assurance that road construction and improvement, and other projects which affect transportation, meet air quality goals.

Board of Directors

The LRAPA Board of Directors is a seven-member board which meets monthly to establish policy and adopt agency regulations. Board members are appointed from their respective city councils and the Lane County Board of Commissioners. Membership comprises three representatives from the city of Eugene, two from the city of Springfield and one each from Lane County and the city of Cottage Grove.

LRAPA Director

The Board of Directors appoints the director of the agency, who has overall authority to direct the LRAPA staff. The director makes policy recommendations to the board and is responsible for implementing board decisions. The director interacts closely with the the Oregon Department of Environmental Quality and the Environmental Protection Agency to implement state and federal requirements.

Citizen Advisory Committee

The LRAPA Citizen Advisory Committee comprises local interested citi-

zens representing specific areas of interest including agriculture, community planning, fire suppression, industry, public health and the general public. The committee is called upon to provide input before policies are established. Up to 15 members may comprise the committee at any one time.

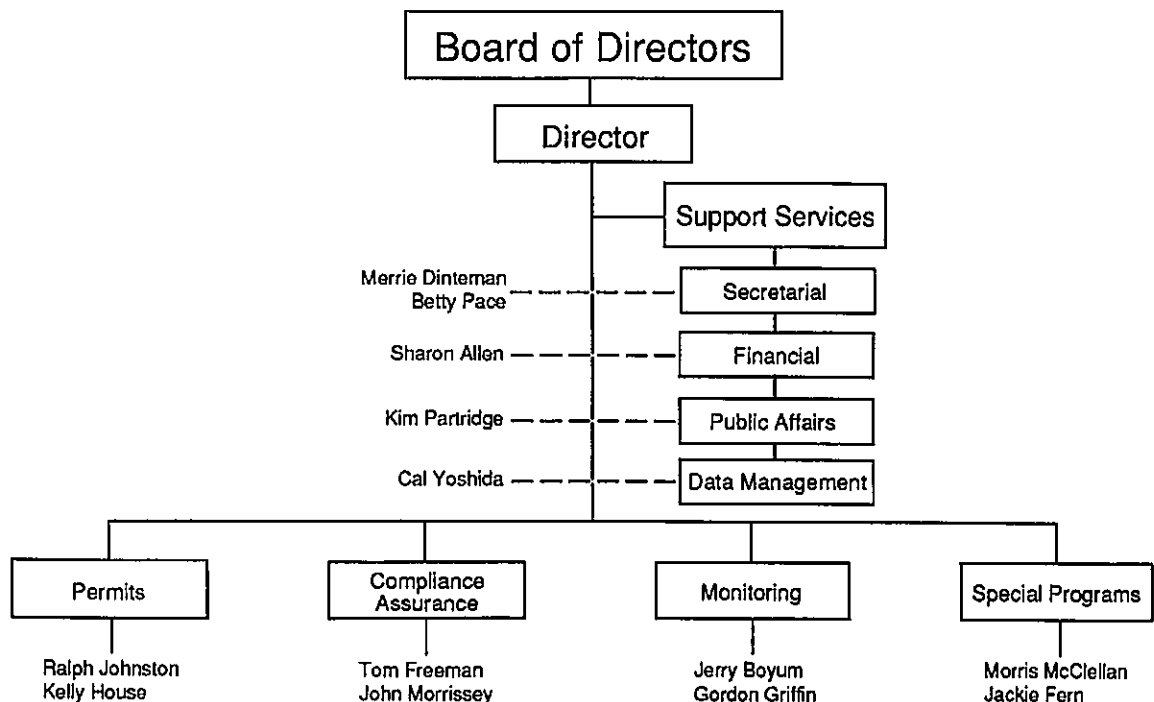
The committee has been active in developing policies for LRAPA's mandatory home wood heating advisory program, backyard burning rules and long-term planning policies.

Budget Committee

The LRAPA Budget Committee comprises seven members, appointed by the Board of Directors. The committee meets yearly to review LRAPA's budget request. Committee recommendations are presented to the Board prior to budget adoption.

Hearings Officer

LRAPA's hearings officer is an independent attorney with whom LRAPA contracts to act as presiding official for hearings of contested cases.

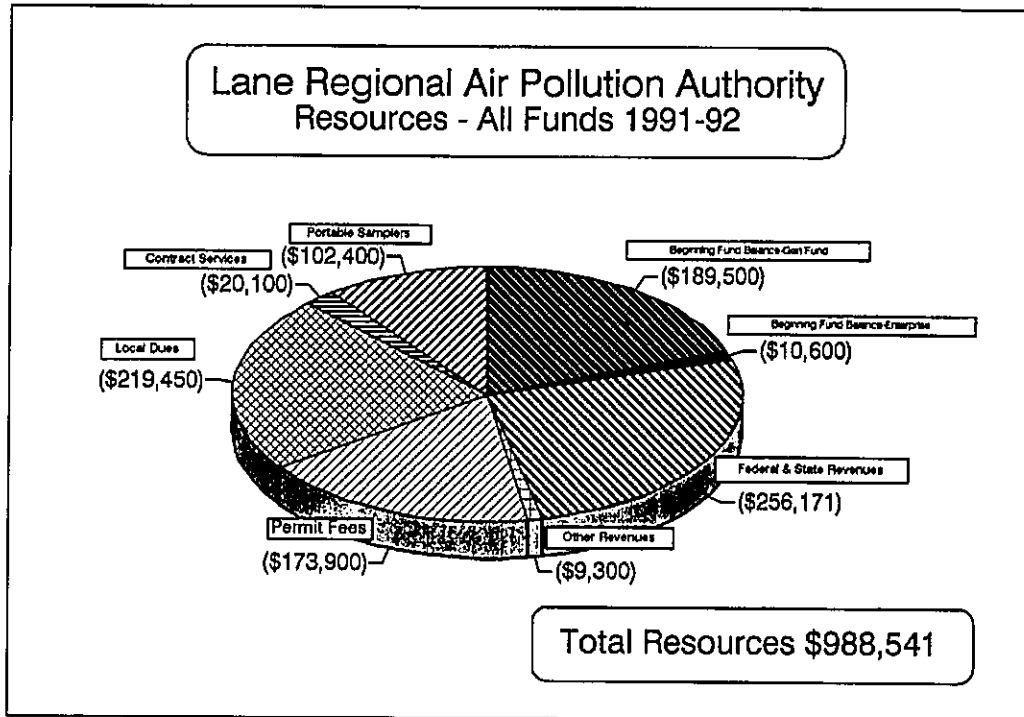


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LRAPA's funding comes from many sources, including local contributions, state and federal grants, supplemental federal grants for special projects, permit fees and miscellaneous contracts.

Typical of a service-oriented agency, LRAPA's largest ex-

pense item is personnel. LRAPA has held these costs down historically, maintaining a stable staff level for more than a decade. The agency increased its staff level by 1.5 FTE in 1991 in order to implement requirements of the Clean Air Act Amendments of 1990.



Lane County is located at the southern end of the Willamette Valley and stretches from the Cascade Mountains to the Pacific Ocean. The county's population is 283,500 or about 10 percent of the state's total population. The incorporated cities of Eugene and Springfield comprise the second largest urban area in Oregon with an estimated 157,000 residents.

The Eugene/Springfield metropolitan area is the most populated portion of Lane County, both in terms of people and industry. This area has the greatest potential for future problems as the population continues to grow. Several other areas of Lane County experience seasonal air quality problems due to residential wood burning, forest slash burning and agricultural field burning. The city of Oakridge, for example, located about 40 miles southeast of Eugene/Springfield receives high concentrations of particulates in the wintertime months from residential home wood heating. The Cottage Grove, Marcola, Veneta, Elmira, and Junc-

tion City areas experience seasonal air quality problems resulting from slash and agricultural field burning.

Topography and meteorology influence air quality

The metropolitan area of Lane County is bordered on three sides by mountains, which can restrict horizontal movement of air. During days with cold, stagnant weather conditions, cold air often becomes trapped in the valley floor with warm air aloft creating temperature inversion conditions. The combination of cold stagnant air and restricted ventilation causes air pollutants to become trapped near the valley floor. Although temperature inversions can occur anytime, they are most frequent and pose most harm to air quality in the winter months when residents are using wood to heat their homes. During these episodes, smoke and gas concentrations climb, deteriorating the local air quality.

Similar topography and meteorology occur in Oakridge and Cottage Grove during the winter months.

On November 15, 1990, President Bush signed into law the first amendments to the Clean Air Act (CAA) since 1977. Changes to the Act address different aspects of the air pollution problems in the U.S.

The Act will have significant effects on Lane County's non-attainment areas. Major industrial sources and sources of toxic chemicals will be directly impacted by the amendments. Of the total 11 titles of the Act, three will directly affect Lane County.

Title I: Urban air quality

In Lane County, the Eugene/Springfield area has been designated a PM₁₀ non-attainment area. Oakridge also exceeds the PM₁₀ National Ambient Air Quality Standards (NAAQS) and is due to be designated a "non-attainment" area in 1992. The Act requires LRAPA, as the lead PM₁₀ planning agency for Lane County, to develop plans to reduce PM₁₀ concentrations to acceptable levels. The Act also prescribes that minimum acceptable control measures must be applied. All plans must be submitted to EPA for approval. Failure to submit plans may result in sanctions and federally developed control programs.

The Eugene/Springfield plan was developed and submitted on schedule to EPA for approval. LRAPA is currently developing a plan for the city of Oakridge.

Title III: Toxic air pollutants

The federal government is taking seriously the adverse effects of toxics on human health and the environment, and is required by the Act to set strict standards for reducing those hazards. Over the next 10 years new standards and regulations will be placed on sources which emit one or more of 189 air pollutants defined as hazardous by the Act. The new standards will require maximum achievable control equipment

be placed on these sources to reduce hazardous emissions.

Locally, industry groups such as dry cleaners, pulp mills, resin manufacturers, and food and agriculture industries will be affected. In 1991, LRAPA began to revamp the emission inventory portion of its Permit Section to better implement changes established by the 1990 CAA amendments.

Title V: Permits for major sources

Changes to Title V of the Act require states to develop comprehensive permit programs for major industrial sources. The federal law also requires that assessment of fees be based on emissions of particulate matter, sulfur dioxide, nitrogen dioxide, lead, volatile organics and hazardous air pollutants. These fees must cover all expenses of the permit program, including permit development, processing, compliance assurance, emissions inventorying, reporting, and monitoring.

The 1991 Oregon Legislature passed a law establishing an interim fee schedule to provide to agencies the resources needed to develop approvable major source permit programs in Oregon. LRAPA participated in developing the legislation and the resulting initial regulations.

National Ambient Air Quality Standards (NAAQS)

The Environmental Protection Agency (EPA) has set national health standards for six outdoor air pollutants (criteria pollutants): particulate matter, ozone, carbon monoxide, sulfur dioxide, nitrogen dioxide and lead. The national standards are required to be met in all geographic areas. Pollutants must be measured where population centers exist or where any of the pollutants are of concern or are near or over the standards.

In Lane County, three criteria pollutants — particulate matter (PM₁₀), carbon monoxide and ozone — are of concern and are monitored continuously. The Eugene/Springfield area is monitored for all three pollutants while the Oakridge area is monitored for PM₁₀.

Currently, the Eugene/Springfield area is designated a PM₁₀ "non-attainment" area. Oakridge is expected to be designated a "non-attainment" area sometime during 1992. Recent history shows the standards for ozone and carbon monoxide have not been exceeded for a number of years in Lane County. PM₁₀ standards were last exceeded in 1987 in Eugene/Springfield. Oakridge, however, where PM₁₀ monitoring began in 1988, has exceeded the federal standard three of the last four years monitored.

Criteria Pollutants

Criteria pollutants are those for which a National Ambient Air Quality Standard has been set. All criteria pollutants pose threats to healthy individuals, but populations most at risk are the young, the old, and those with heart and lung problems.

Air Pollution Index Summary Eugene-Springfield				
1988 Number of days				
	Good	Moderate	Unhealthful	Total
CO	104	13	0	117
O ₃	91	43	2	136
PM ₁₀	64	49	0	113
Totals	259	105	2	366
1989 Number of days				
	Good	Moderate	Unhealthful	Total
CO	85	32	0	117
O ₃	104	19	0	123
PM ₁₀	85	39	0	124
Totals	274	90	0	364
1990 Number of days				
	Good	Moderate	Unhealthful	Total
CO	152	5	0	157
O ₃	122	18	0	140
PM ₁₀	47	15	0	62
Totals	321	38	0	359
1991 Number of days				
	Good	Moderate	Unhealthful	Total
CO	135	14	0	149
O ₃	107	28	0	135
PM ₁₀	37	44	0	81
Totals	279	86	0	365

PM₁₀
 PM₁₀ refers to air-borne particulates which are less than 10 microns in diameter — about one-tenth the diameter of a human hair. When these tiny particles are breathed in, they pose a health threat because they are small enough to slip by the body's natural defenses and become lodged deep in the lungs. Health studies have shown that half of the

PM₁₀ particles inhaled get into the lower respiratory tract where they may remain for weeks or even years before being expelled. These particles aggravate bronchitis, asthma, emphysema and other chronic lung diseases.

The primary local sources of PM₁₀ are residential wood burning, industrial boilers and other combustion sources.

Yearly PM₁₀ Levels — 1985-1991

Site #	Site Name	Notes	1985	1986	1987	1988	1989	1990	1991
2018039	Westmoreland Elementary School	a	—	—	—	39	28	20	—
		b	—	—	—	76	120	30	—
		c	—	—	—	74	91	26	—
		d	—	—	—	0	0	0	—
2018056	Lane Community College	a	32	31	37	29	27	23	27
		b	197	85	129	72	91	50	95
		c	156	72	124	69	79	48	73
		d	3	0	0	0	0	0	0
2018058	Key Bank — Hwy 99N	a	—	39	43	37	34	31	38
		b	267	151	175	129	146	118	126
		c	234	111	174	118	125	102	121
		d	14	1	3	0	0	0	0
2018060	Amazon Park	a	34	27	32	26	39	24	34
		b	189	118	122	95	92	49	73
		c	152	67	117	91	86	46	62
		d	2	0	0	0	0	0	0
2030003	Willamette Actl. Center — Oakridge	a	—	—	—	34	—	33	37
		b	—	—	—	199	165	149	187
		c	—	—	—	177	122	142	184
		d	—	—	—	4	1	0	9
2033060	Springfield City Hall	a	—	—	35	34	28	25	30
		b	80	57	104	75	91	57	97
		c	62	52	96	67	71	56	89
		d	0	0	0	0	0	0	0
2033061	Springfield High School	a	—	—	—	—	—	—	29
		b	—	—	—	—	—	—	99
		c	—	—	—	—	—	—	85
		d	—	—	—	—	—	—	0
2009002	Harrison Elem. School — Cottage Grove	a	—	—	—	—	—	24	29
		b	—	—	—	—	—	77	132
		c	—	—	—	—	—	59	71
		d	—	—	—	—	—	0	0

Standards:
 24-hour average — 150 micrograms/cubic meter
 Annual arithmetic mean — 50 micrograms/cubic meter

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

Carbon monoxide (CO)

Carbon monoxide is a colorless, odorless, potentially lethal gas produced by incomplete combustion processes. CO reduces the blood's capacity to carry oxygen, thus lowering the amount of available oxygen to muscles and organs. Individuals with heart and respiratory problems are most at risk from problems associated with carbon monoxide. Exposure to low concentrations can cause severe headaches

and nausea, and can significantly reduce a healthy person's ability to function by slowing both reflexes and thinking capabilities. Prolonged exposure to high concentrations may cause death.

The major local sources of carbon monoxide include gasoline-powered automobiles, industrial combustion processes and residential wood burning.

Yearly Carbon Monoxide Levels — 1985-1991

Site #	Site Name	Notes	1985	1986	1987	1988	1989	1990	1991
2018056	Lane Community College	a	12.7	10.3	8.2	8.3	7.0	5.8	6.3
		b	9.5	9.6	7.6	8.2	6.0	5.5	6.2
		c	1	1	0	0	0	0	0
2018060	Amazon Park *	a	10.3	7.3	6.0	5.1	---	---	---
		b	8.5	6.1	5.9	4.5	---	---	---
		c	1.0	0	0	0	---	---	---
2018058	Sacred Heart ** General Hospital	a	---	---	---	---	9.6	6.9	9.1
		b	---	---	---	---	9.5	6.3	7.7
		c	---	---	---	---	0	0	0

Standard:

- 8-hour average — 10 milligrams/cubic meter
- 1-hour average — 35 milligrams/cubic meter

Notes:

- a Highest 8-hour concentration
- b 2nd highest 8-hour concentration
- c Number of exceedances
- No data collected at site during year
- * Site operated January - February, 1988
- ** Site began operation in August, 1989

Ozone

Ozone, considered a summertime pollutant, is formed when hydrocarbons and nitrogen oxides react with one another in the presence of strong sunlight and warm temperatures. Ozone is a major component of summertime smog.

Hydrocarbons and nitrogen oxides are the major precursors to ozone. Automobiles, industrial combustion processes, gasoline station pumps, gasoline storage tank facilities and

paint and ink solvents, degreasing agents and dry cleaners are examples of sources of the precursor chemicals.

Ozone irritates the eyes, nose, throat and respiratory system. As with other pollutants, the old, young and those with heart and lung problems are at the highest risk, but even healthy people may experience shortness of breath and coughing when exposed to ozone, especially during outdoor exercise.

Yearly Ozone Levels — 1995-1991

Site #	Site Name	Notes	1985	1986	1987	1988	1989	1990	1991
2000036	Delight Valley School — Saginaw	a	202	210	224	232	174	180	184
		b	202	191	220	216	147	178	180
		c	0	0	0	0	0	0	0
2018060	Amazon Park	a	182	188	235	286	165	---	174
		b	175	184	218	241	149	---	172
		c	0	0	0	2	0	---	0

Standard:

1-hour average 235 micrograms/cubic meter

Notes:

- a Highest 1-hour concentration
- b 2nd highest 1-hour concentration
- c Number of exceedances
- No data collected at site during year

Nitrogen oxides (NO_x)

Nitrogen itself is a colorless, tasteless, odorless gas that constitutes 78 percent of our atmosphere. Although alone it is generally a benign gas, some of its oxides — nitric oxide and nitrogen dioxide — are considered pollutants.

Nitric oxide (NO) is a colorless, somewhat toxic gas formed when combustion takes place at a high enough temperature to cause a reaction between the nitrogen and oxygen in the air. Only in efficient combustion processes or during times when combustion takes place at high pressures do temperatures rise

enough to form NO, such as in automobile cylinders, electric power plants and other very large energy-conversion processes.

Nitrogen dioxide (NO₂) is a poisonous gas produced whenever nitric oxide is a by-product of sufficiently high burning temperatures. It is a product or by-product of a number of industries, including fertilizer and explosives manufacturing. NO₂ is a yellow-brown color and has a pungent, sweetish odor. Exposure to NO₂ is presumed to be harmful to the lungs, diminishing the oxygen-carrying capacity of the blood-stream.

NO_x are formed locally from motor vehicle exhaust and industrial combustion processes, such as boilers and furnaces. Ambient levels of NO_x have been monitored in the past, but have not been found to be near the standard.

Sulfur Dioxide (SO₂)

Sulfur dioxide is a pungent, colorless gas that combines easily with water vapor to become sulfurous acid (H₂SO₃), a mildly corrosive compound. When sulfurous acid combines with oxygen, it produces sulfuric acid (H₂SO₄), a very corrosive and irritating chemical. It is present as an impurity in coal and fuel oil used in combustion processes.

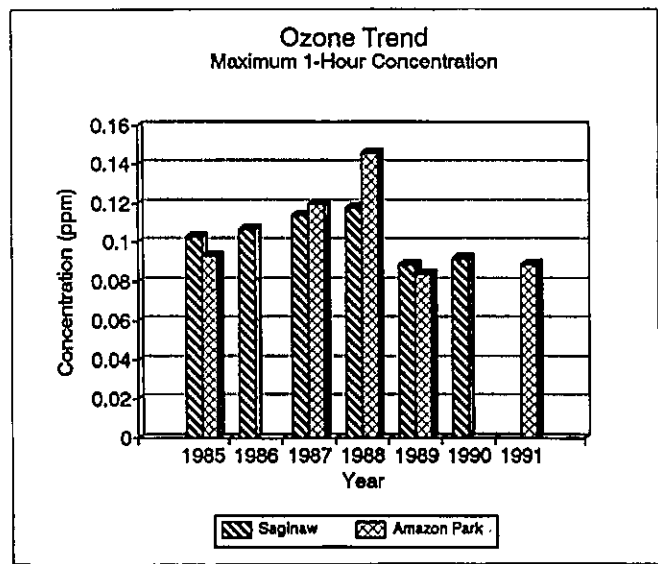
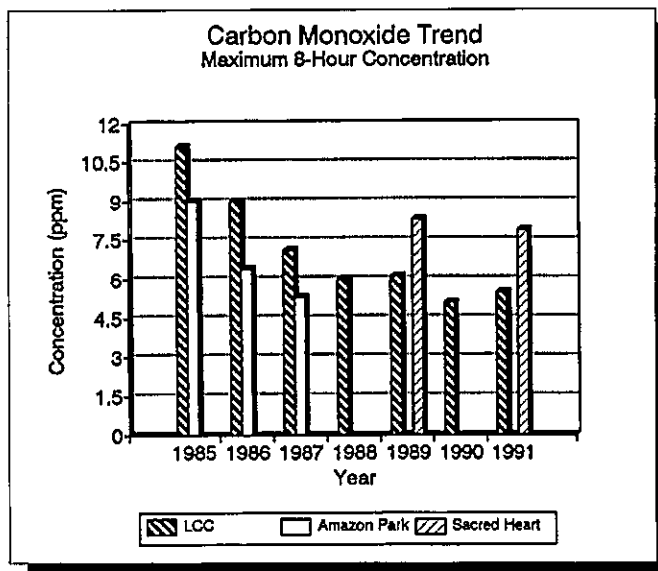
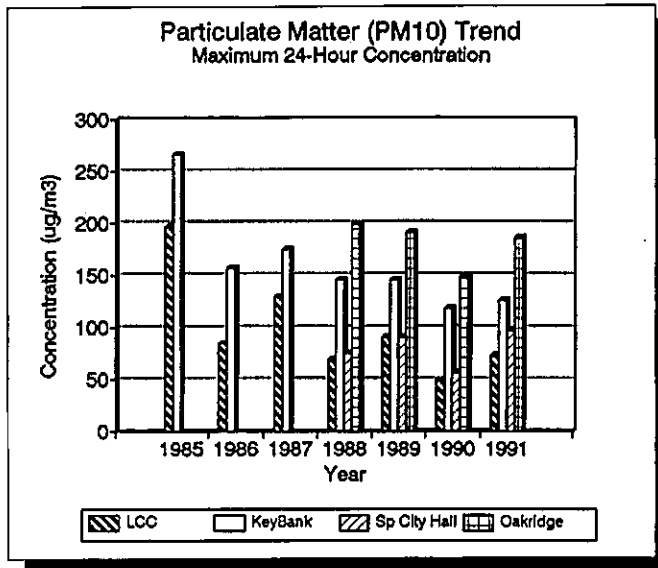
Sulfur oxides damage plants, dissolve stone and corrode iron and steel. Alone, they have an irritant effect on a person's breathing capabilities. When sulfur oxide emissions join in the ongoing process of chemical change in the atmosphere, the resulting products may do significant damage to the respiratory system. The Eugene/Springfield area has only two major sources of SO₂, the Kraft pulp mill operated by Weyerhaeuser and the silicon furnace at Dow Corning, both in Springfield. Local use of fossil fuel by industry or power plants is minimal. SO₂ has been monitored in the past, but concentrations have been well below the NAAQ standard.

Lead

Lead is a widely used metal, which may accumulate in the body and remain for many years. Routes of exposure include inhalation, ingestion, or through the skin. Exposure to lead may disturb motor function and reflexes, impair learning, cause intestinal distress, anemia, and damage to the central nervous system, kidneys and brain. Children are more susceptible than adults to adverse affects from lead exposure.

Locally, leaded gasoline is the main contributor of air-borne lead, although smelting, battery manufacturing and battery recycling also are sources. Lead concentrations locally have been measured well below the NAAQ standard.

Local Pollution Trends



Health Effects

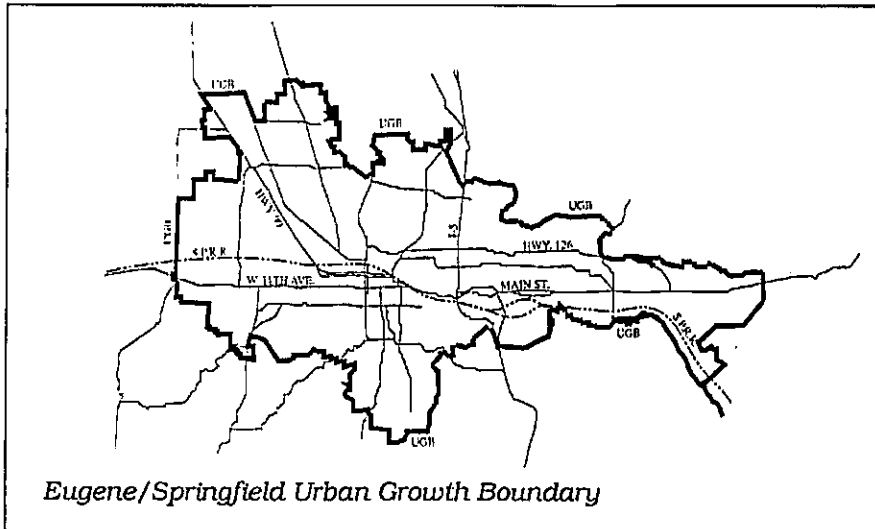
Pollutant	Particulates PM₁₀	Carbon Monoxide CO	Ozone O₃
Definition	Respirable particles less than 10 microns in size	An odorless, tasteless, colorless gas which is emitted primarily from any form of combustion	Toxic gas associated with photochemical smog. Formed when nitrogen oxides and volatile organic compounds photochemically react with one another in the presence of sunlight and warm temperatures
Sources	Residential wood burning Industry Fugitive dust Construction activities Street sand application Other combustion sources Open burning	Gasoline and diesel powered mobile sources, such as autos, trucks, buses and locomotives Wood burning Open burning Industrial combustion sources	Volatile organic compounds and nitrogen oxides from gasoline powered mobile sources, etc. Industry Power plants Gasoline storage and transfer Paint
Health Effects	Aggravates ailments such as bronchitis and emphysema, especially bad for those with chronic heart and lung disease, as well as the very young and old, and pregnant women	Deprives the body of oxygen by reducing the blood's capacity to carry oxygen. Causes headaches, dizziness, nausea, listlessness, and in high doses, may cause death	Irritates eyes, nose, throat and respiratory system. Especially bad for those with chronic heart and lung disease, as well as the very young and old, and pregnant women

HWH Advisory Program

Residential home wood heating is the most significant contributor to wintertime PM₁₀ pollution in numerous communities in the northwest. In Lane County, the Eugene/Springfield and Oakridge areas have been

inform residents whether or not they may burn. The program provides exemptions for households with wood as the sole source of heat, and for those who qualify under economic need guidelines. A violation of

the advisory occurs when visible chimney smoke is observed during a "red" period, which is the only time visible smoke is prohibited. Residents in the Eugene/Springfield Urban Growth Boundary who violate the ordinances may be fined \$50 to \$500.



Eugene/Springfield Urban Growth Boundary

identified as exceeding federal air quality standards, due primarily to home heating with wood. In 1986, LRAPA began a voluntary residential home wood heating advisory and curtailment program in Eugene/Springfield to reduce particulate matter from residential home heating. A similar voluntary program was adopted by the city of Oakridge in 1989. In 1991, the Eugene/Springfield program became mandatory as specified in the air quality plan adopted by the board, and required in ordinances adopted by Lane County and the cities of Eugene and Springfield. The Oakridge advisory program remained voluntary in 1991, pending development of an air quality plan for the city of Oakridge.

LRAPA's plan to reduce Eugene/Springfield PM₁₀ levels to acceptable levels hinges on the success of the wood burning advisory and curtailment program. Residents living within the Eugene/Springfield Urban Growth Boundary are affected by the mandatory program, which uses a daily "green, yellow, red" advisory to

Legislature helps rid state of dirty stoves

The 1991 Oregon Legislature helped speed the process of reducing wintertime air pollution by passing a law prohibiting the sale and installation of uncertified woodstoves in Oregon. Since 1986, all new stoves for sale in Oregon have been required to be certified (as clean burning) by either the Oregon Department of Environmental Quality or the federal Environmental Protection Agency. The new law does not restrict the use of existing stoves, but prohibits their sale and installation as used stoves. Exceptions include stoves considered "antique" by state definition. The law forbids not only selling stoves, but also advertising for sale or installing uncertified stoves. The law, however, does not restrict the sale of homes with installed uncertified woodstoves.

Wood Burning Advisories (November — February)

Eugene/Springfield

Green— means air quality is good at this time and unrestricted use of a wood heating device is allowed.

Yellow— means air quality is deteriorating. Residents are asked to cut back on home wood heating use.

Red I— means air quality is reaching an unhealthy stage. Visible smoke from a chimney will result in a violation, unless the resident has an exemption. Burning is allowed if done without producing any visible smoke.

Red II— means all burning must stop. Use of a pellet stove is allowed if no visible smoke is emitted into the air.

Remember, visible smoke from a chimney on a red day may result in a \$50 to \$500 fine.

Oakridge

Green— Burn only dry, well-seasoned wood.

Yellow— Don't burn unless absolutely necessary.

Red— Stop using wood stoves and fireplaces.

Where to find advisory information

- ✓ Major area radio stations
- ✓ Local television stations during weather portion of newscasts
- ✓ Local newspapers
- ✓ Eugene/Springfield area home wood heating call line — **746-HEAT**
- ✓ Oakridge home wood heating call line — **782-2414**

LRAPA enforces air pollution regulations adopted by the LRAPA Board of Directors.

Typically, LRAPA may initiate enforcement action in instances of excessive amounts of industrial air pollution, illegal open burning activities, improper handling or transport of asbestos-containing materials, or failure to obtain the necessary air pollution permits prior to construction or operation. These

enforcement actions may include civil penalties of up to \$10,000 per day.

Several factors are addressed before determining the penalty. Financial benefit derived from the violation, seriousness of the offense, past violations and cooperation to correct the violation are all taken into consideration when determining a penalty assessment.

Enforcement Actions				
Year	1988	1989	1990	1991
Administrative warnings and Notices of non-compliance	5	14	2	10
Notices of violation	11	16	11	19
Notices of violation with civil penalty	9	8	8	23
Total \$\$ collected	3,300	4,640	1,250	10,565

LRAPA also spends a substantial amount of staff time handling complaints from the public. A high priority is placed on addressing complaints about dust, open burning, excess woodstove smoke, fumes and odors. LRAPA also receives numerous complaints about field and slash burning when smoke from

such burning invades residential areas, although both are outside the agency's jurisdiction. In fact, in 1991, most of the complaints the agency received were related to field burning. Of the 1,307 complaints received, 834 were about field burning. Most of those were received from August through October.

If you have an air pollution complaint . . . call us.

LRAPA staff strives to respond to complaints which are within the agency's jurisdiction. The agency has a 24-hour recorded complaint phone line — **726-1930**. Complaints during normal business hours are handled by LRAPA staff at **726-2514**.

Points to Remember

- ✓ Reported problems vary. It may be an odor, burning leaves, a smoking residential chimney or smoking industry smokestack.
- ✓ What looks bad may or may not be harmful. For example, large white plumes from some smokestacks in winter may just be water vapor condensing in cold air. These steam "plumes" are not as prominent during summer when the air is warmer.
- ✓ The reported problem may be coming from a legal activity, such as burning in a woodstove or fireplace, or permitted backyard burning in an area that allows burning of residential yard trimmings.

In any case, you should call LRAPA with the information. The agency watches for problems but cannot find them all without your help.

According to the Oregon Department of Agriculture's (ODOA) *Summary of the 1991 Field Burning Season*, 1991 was a successful open field burning year in the South Willamette Valley. ODOA recorded only two episodes of smoke intrusion at each of the "official" smoke intrusion monitoring sites in the Eugene/Springfield area for a total of three hours of impact. In addition, total state-wide acreage open-burned is on the decline. Total acreage burned in 1991 was down two-thirds from each of the previous three years, when about 160,000 acres were burned annually. In the South Willamette Valley, total acreage open-burned was slightly half that of each of the previous three years.

However, the number of field burning complaints recorded by LRAPA in 1991 increased 130 percent over 1988 and 1989, and 64 percent over 1990. Those numbers are significant, given the reduced acreage burned.

Several factors may have contributed to the large number of additional complaints during a year with sharp reductions in open burning. First, growers are switching from open field burning to propane burning. Propaned fields are not accounted for in acreage-burned figures, according to Steve Crane of the Oregon Department of Environ-

mental Quality. With the acreage of propaned fields included, the total acreage burned may be similar to acreage burned in earlier years.

In addition, propaning appears to have impacts upon large numbers of people, but the impacts are not registered as intrusions. "Intrusion" criteria are based upon the assumption that there will be a sudden, detectable increase in smoke (caused by open burning) into an area. Propaning often causes smoke levels to rise more gradually, and thus may not register official intrusions. Also, because of the attention the 1991 Legislative Assembly gave to field burning, it is possible public expectations were raised beyond what was experienced — they may have assumed there would be less smoke in the valley than there actually was.

Also, in the past year LRAPA changed its procedure for documenting complaints, which may have reduced the length of time a complainant is actually on the line. Theoretically, more people could call, increasing the total number of complaints the agency received. The agency has four phone lines from which complaints may be taken. In addition, during evening hours, LRAPA has a complaint line which can record up to 50 messages per evening.

FIELD BURNING -YEAR-END TOTALS

Year end	S. Willamette acres burned	Number of intrusions	Impact hours	Number of complaints
1991	55,205	2/Eug. 2/Spfld.	2/Eug. 3/Spfld.	834
1990	97,106	1/Eug. 3/Spfld.	6/Eug. 23/Spfld.	508
1989	103,569	1/Eug. 2/Spfld.	3/Eug. 4/Spfld.	349
1988	105,303	0/Eug. 5/Spfld.	0/Eug. 14/Spfld.	374

Yearly Complaints : 1988-1991

Complaints				
Year	1988	1989	1990	1991
Backyard burning	59	46	54	46
Dust	13	8	0	11
Field burning	344	349	508	834
General air quality	13	9	24	17
Home wood heating	26	29	50	49
Industry	110	100	114	146
Miscellaneous *	(32)	(68)	120	59
Open burning *	---	---	85	59
Slash burning	67	41	247	28
Unknown	2	30	36	58
Total	666	680	1238	1307
* Began calculation in 1990 Miscellaneous totals in 1988, 1989 include all complaints logged in categories not listed on this chart				

Once labeled a "miracle" fiber, asbestos, and its associated health risks, has prompted the federal government to ban most common uses of the fiber and develop standards with which asbestos must be handled.

LRAPA's role

In Lane County, LRAPA is responsible for the enforcement of regulations regarding work practices and disposal procedures. The agency has taken its regulatory and educational roles seriously due to the potential for asbestos-caused disease. The agency has aggressively worked to educate contractors and the general public of the health hazards associated with working with asbestos and will continue to do so through education, regulation and enforcement.

Introduction to asbestos

Asbestos is a generic term used to describe a number of fibrous minerals found in various concentrations across the earth's surface. As defined by federal regulatory agencies, the term encompasses six minerals: chrysotile, amosite, crocidolite, and fibrous varieties of tremolite, anthophyllite and actinolite. Of these, chrysotile is the most widely used, accounting for more than 90 percent of world consumption.

Asbestos has been widely used because of its high tensile strength, superior flexibility and durability, and resistance to fire, heat and corrosion. In the recent past, it was very favorably perceived by the public as a "miracle" fiber. Its unique combination of properties remains unmatched by any other natural or man-made fiber.

It has been known for some time that exposure to asbestos can cause diseases in humans. Asbestos fibers, some of which are microscopic, can enter the body through ingestion or inhalation. Most studies identify inhalation as the route most likely to cause adverse effects.

Asbestos and Health

Inhalation of asbestos fibers has been linked with serious health conditions. Once inhaled, asbestos

fibers can become lodged in lung tissue where they can remain over extended periods of time, often years. Exposure of lungs to asbestos can cause serious illnesses, notably, asbestosis (a non-malignant scarring of the lung tissue), lung cancer and mesothelioma (cancer of the lining of the chest or abdominal cavities).

Although not all people exposed to asbestos develop asbestos-related diseases, experts say there is no safe level of exposure. For that reason, it is important to protect the general public from exposure to airborne asbestos particles.

Control of asbestos in the environment

The federal Clean Air Act delegates responsibility to the Environmental Protection Agency for controlling the release of asbestos fibers into the ambient air. These regulations, which apply to a broad range of asbestos-related activities from milling to waste disposal, are also administered by state and local agencies.

LRAPA regulates demolition, renovation, transportation, storage and removal of asbestos when disturbance of asbestos-containing materials may cause fibers to be released into the air. Asbestos in this state is "friable," meaning the products are brittle and may be easily crumbled by hand pressure alone. Because of the high potential for release of fibers into the air, friable products have been virtually eliminated from general use. However, due to prior wide-spread use of this type of asbestos in construction and industrial projects, asbestos is commonly found today in buildings constructed before 1980.

Common asbestos-containing materials

Asbestos is often found in various products used in homes. Floor tiles and vinyl sheet flooring, patching compounds and textured paints, ceilings and walls, door gaskets, sprayed-on insulations, insulation in appliances, roofing, shingles and siding are just a few materials where asbestos is commonly found.



Legislative Activities



LRAPA's legislative activities during the 1991 legislative assembly focused primarily on three bills.

Of most concern to the agency was House Bill 2175, which provided legal authority to bring the state into compliance with certain parts of the Federal Clean Air Act (CAA). The bill, which became law in September, established the requirement to develop a state-wide industrial permitting program to meet the mandates of the CAA. HB2175 established, for the first time, air emission fees as the means to fund air program development. Also, HB2175 provided for motor vehicle emission fees for air quality enhancement projects. LRAPA supported these provisions, as well as fee support for woodstove replacement incentives.

House Bill 3343, a controversial bill designed to phase down Willamette Valley agricultural field burning, also received much attention from LRAPA. The bill, as passed, provides a phase-down schedule for open field burning. LRAPA supported an accelerated phase-down schedule. The yearly phase-down schedule, as passed, is as follows:

180,000	1991
140,000	1992-1993
120,000	1994-1995
100,000	1996-1997
40,000	1998 and after

An additional 25,000 acres may be burned yearly to deal with special problems of disease control.

LRAPA-proposed House Bill 2575, designed to provide more flexibility in board membership selection, also passed. The change in statute now allows cities with more than one member to appoint second and third members from the public within their jurisdictions. In the past, all board members had to be elected to their respective councils or governing boards.

An important part of any public agency program is community service outreach and education. LRAPA provides these services to the community throughout the year in several different ways.

One of the most effective ways the agency reaches the public is through the media. LRAPA relies heavily on the media to disseminate important information to the public. The agency's public affairs coordinator has daily contact with the media, establishing a close relationship between the two sectors.

In addition to daily contact, the agency uses press releases and paid advertising to inform the public on important issues.

Aside from the routine calls between the agency and the media, the media initiated more than 120 calls to LRAPA in 1991.

- ✓ The agency provides print information — brochures, fact sheets and newsletters — to the public. The agency maintains a large selection of brochure on a wide-range of topics and receives print material from other organizations, such as the Oregon Department of Environmental Quality, the Environmental Protection Agency and the American Lung Association.
- ✓ The agency's library of air pollution literature is open for public use.
- ✓ LRAPA staff members are frequently called upon to speak on air quality related issues before service clubs, professional associations, public schools and universities. Each year staff members visit classes, from elementary to college level. The agency also participates in such events as the county fair, school science fairs and other "clean air" events.

- ✓ The agency has been aggressive in its commitment to educate the community about the hazards of working with asbestos and enforcing asbestos regulations. This past year LRAPA staff has presented asbestos seminars to groups such as building contractors, carpenters, real estate associations and industrial workers. The agency uses an asbestos display which contains samples of common asbestos-containing materials, such as vinyl flooring, acoustic ceilings, pipe wrap and insulation to help familiarize the public with asbestos. In addition, the media has provided media coverage on LRAPA's campaign to inform the public of the hazards of this material.

Over the next several years much of LRAPA's "core" program, funded by EPA, will be directed at implementing the requirements of the federal Clean Air Act. Emphasis will be placed on regulation of numerous small sources of hazardous air pollutants which have not previously been locally regulated, and upon regulation of additional pollutants from major industrial sources. In addition, LRAPA will stiffen the regulations of short-term excessive emissions, including those which occur during routine maintenance, upsets and breakdowns of industrial sources.

With a projected population growth of 18 percent in Lane County, which includes a 21 percent increase in the Eugene/Springfield area by the year 2000, LRAPA is evaluating its long-term directional goals. Although pollution levels have dropped in the local area in recent years, the limited assimilative capacity of the airshed, as determined by meteorology and topography, is projected to remain

the same. The only ingredients needed to create serious air pollution in Lane County are the significant additional emissions that typically accompany population growth. LRAPA will continue its effort to address air quality as a critical growth issue. LRAPA's goal in this area is to continue to reduce emission rates from all sources so that air quality may remain healthful well into the next decade.

LRAPA phone numbers

Business Office	726-2514
Eugene/Springfield Home Wood Heating Advisory Line	746-HEAT
Eugene/Springfield Backyard Burning Advisory Line	726-3976
Oakridge Home Wood Heating Advisory Line	782-2414
24-Hour Complaint Line	726-1930



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