


1993  
ANNUAL REPORT

Lane Regional Air Pollution Authority

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The Lane Regional Air Pollution Authority (LRAPA) is a local intergovernmental quasi-municipal agency formed under state law. LRAPA's purpose is to protect and maintain in a progressive manner the air resources in Lane County, consistent with the public health, economic and quality-of-life values of the citizens of the county. It is the only such local agency in the state of Oregon.

LRAPA was formed in 1968, by agreement among Lane County and the cities of Eugene and Springfield. Since then, the cities of Oakridge and Cottage Grove have joined LRAPA as full participants. Each member entity provides support to the agency.

A seven-member board of directors governs the agency. The board members come from each participating entity. The board sets policy and adopts rules and regulations necessary to maintain a local air quality program that meets the needs of the area and fulfills the requirements of federal and state air quality regulations.

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*Donald R. Arkell*  
*Director*

1993 was an intense year for agency staff. Staff began the year interpreting complex state legislative measures and ended it with the development of agency rule changes. The agency hired an operations manager to head the permitting and compliance section of the agency, handed down the largest penalty in its history, received its fewest number of complaints in the past six years, and delved into new requirements of the Clean Air Act. Five major rule changes were completed during the year, with two others in the revision process.

To stay abreast of federal regulations, LRAPA began its preliminary inventory of sources which emit hazardous air pollutants, began investigating the applicability of federal dry-cleaning rules as they relate to local dry-cleaning facilities and continued the task of developing a PM<sub>10</sub> state implementation plan for the city of Oakridge.

The agency played an active role in community partnerships with other public agencies during the year, and worked on several transportation related projects with the cities of Eugene and Springfield, Lane County, the Oregon Department of Transportation, and the Lane Transit District.

LRAPA continued to monitor air quality throughout the year, and conducted a carbon monoxide saturation study in downtown Eugene. In addition, the agency worked individually with major industries to update their permits, assisted Oakridge in its demonstration project to replace old wood stoves, initiated several special monitoring projects, established a new monitoring site and issued 52 violation notices.

During the 1993 calendar year, LRAPA employed 14 full-time and five part-time employees.

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**LRAPA 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 by their respective city councils and the Lane County Board of Commissioners. Membership comprises three representatives from the city of Eugene, one each from Lane County and the city of Springfield, one from either the city of Cottage Grove or Oakridge, and one at-large representative. Cities with more than one member may appoint the second or third member from the public within their jurisdictions.

- Terry Callahan — Chair —Oakridge City Council
- Steve Dodrill —Eugene City Council Appointment
- Beverly Ficek —LBAPA Board Appointment
- Marie Frazier —Lane County Commissioners
- Nancy Nathanson —Eugene City Council
- Gretchen Nicholas —Eugene City Council Appointment
- Ralf Walters —Springfield City Council

**LRAPA Budget Committee**

The LRAPA Budget Committee consists of the LRAPA Board of Directors plus seven board-appointed citizens. The committee meets yearly to review and approve LRAPA's budget request. Appointed Budget Committee members include:

- Don Churnside
- Dave Gibson
- Craig Miller
- Vern Stokesberry
- Judy Tichenor
- Charlie Ward
- Hilda Young

**LRAPA Citizens Advisory Committee**

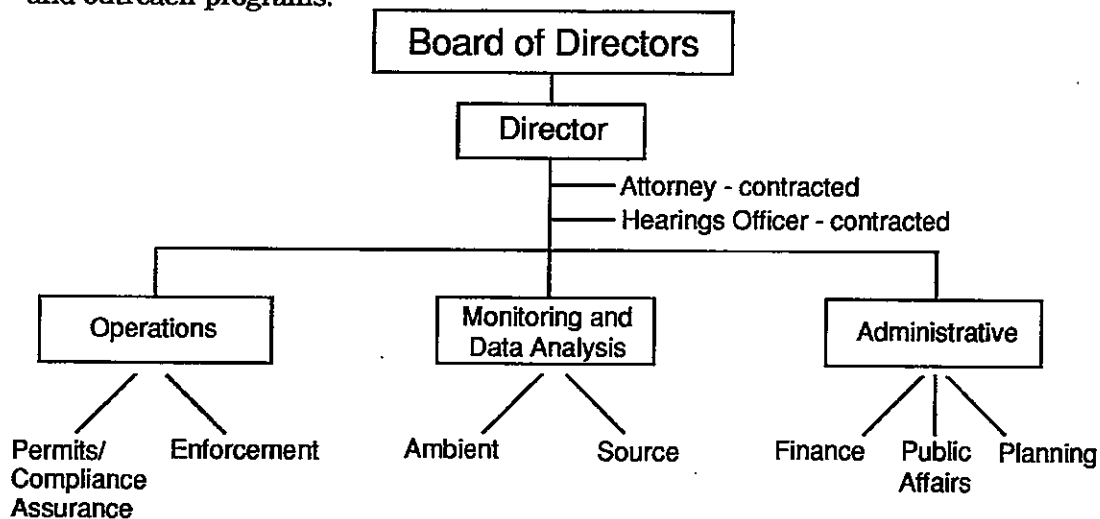
The LRAPA Citizens Advisory Committee comprises local interested citizens representing specific areas of interest, including agriculture, community planning, fire suppression, industry, public health and the general public. The committee is called upon to provide input before policies are established.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

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

- Don Miller — Chair  
Representing Fire Suppression 2 yrs. service
- Steve Counard  
Representing Industry 7 yrs. service
- John Fischer  
Representing General Public 4 yrs. service
- Chuck Fisher  
Representing Planning 2 yrs. service
- William Nagel  
Representing Public Health 5 yrs. service
- Candice Rohr  
Representing Public Health 5 yrs. service
- Dan Shultz  
Representing Fire Suppression 1 yr. service
- Marlys Simons  
Representing General Public 1 yr. service
- Gary Stiltner  
Representing Industry 7 yrs. service
- Fred Walter  
Representing General Public 2 yrs. service
- Lorena Young  
Representing General Public 2 yrs. service

The Board of Directors appoints the director of the agency, who has overall authority to appoint and direct the LRAPA staff. The director makes policy recommendations to the board and is responsible for implementing board decisions.

The LRAPA staff consists of 14 professional and technical full-time employees who perform enforcement, engineering, planning, clerical, financial and informational and outreach programs.



**Operations — Permitting, Compliance Assurance and Enforcement**

*Permitting* establishes conditions under which regulated industrial sources may operate to minimize their contribution to air pollution in the area, assured through an investigation program on permitted sources.

*Enforcement* acts to correct violations of rules or permit conditions related to open burning and asbestos abatement; enforces emission limit regulations; and responds to and resolves public complaints about air quality. Enforcement includes administrating contested case hearings and negotiating settlements.

**Monitoring and Data Analysis — Ambient and Source**

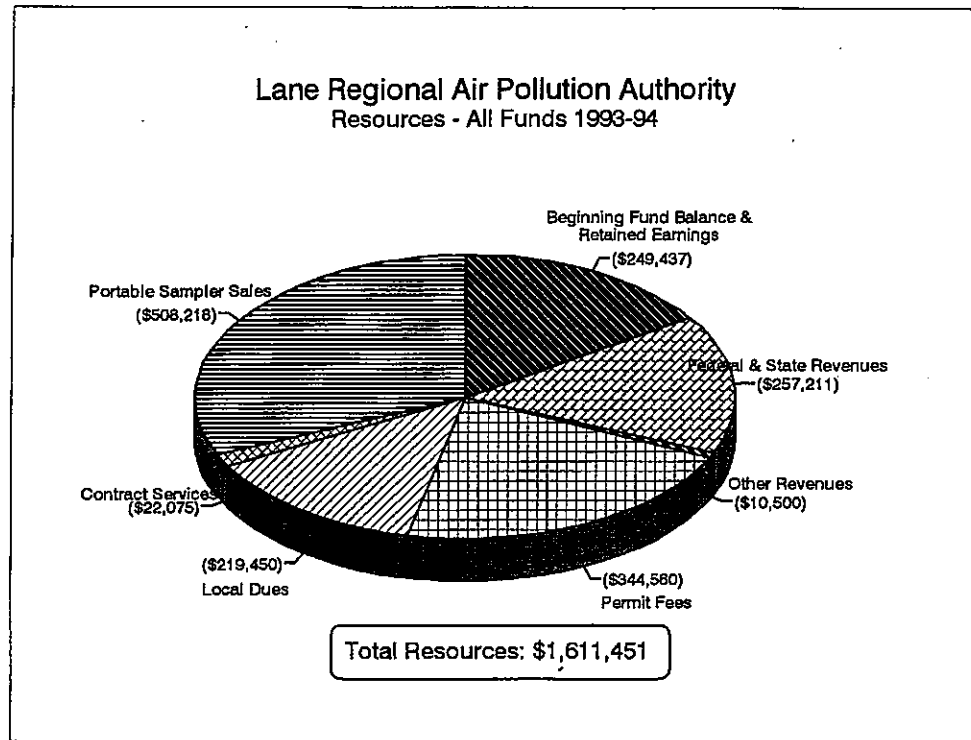
*Ambient monitoring* provides measured air quality data through a network of sampling and continuous monitoring equipment. The data becomes public information on current air quality conditions, *Source monitoring* provides a continuing analysis of source emissions.

**Administrative**

*Finance* provides the agency with full accounting services for all programs, including accounting, budgeting, grant writing and reporting.

*Public education and information* promotes public understanding of air pollution and methods of prevention through public presentations, media relations, intergovernmental relations, and audio/visual and written materials; designs public education campaigns and programs; produces a bi-monthly newsletter and yearly report; issues daily air pollution advisories to the media and public; and responds to public complaints and inquiries about air quality.

*Air quality planning* identifies present and future air quality problems and develops appropriate control strategies. Those strategies are designed to achieve and maintain acceptable air quality as population growth occurs, thus forestalling or preventing the occurrence of future problems. LRAPA works together with other local planning, transportation and community development agencies to ensure adequate attention is given to air quality concerns.



LRAPA's funding comes from many sources, including local contributions (Lane County and the cities of Eugene, Springfield, Oakridge and Cottage Grove), state and federal grants, industrial permit fees and miscellaneous contracts. Although LRAPA's workload continues to increase as more regulatory requirements are placed on the

agency, the agency has been successful in keeping local entity contributions constant over the past three years.

The agency increased its staffing level by one FTE in 1993, 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 164,100 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 air quality 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 experiences high concentrations of particulates in the wintertime months from residential home wood heating. The Cottage Grove, Marcola, Veneta, Elmira, and Junction City

areas also 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 surrounded on three sides by mountains. On days with stagnant weather conditions, cool air often becomes trapped near the valley floor with warmer air aloft creating temperature inversion conditions. The combination of 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 increase, deteriorating the local air quality.

The cities of Oakridge and Cottage Grove, which have similar topography, experience the same phenomena during the winter months.



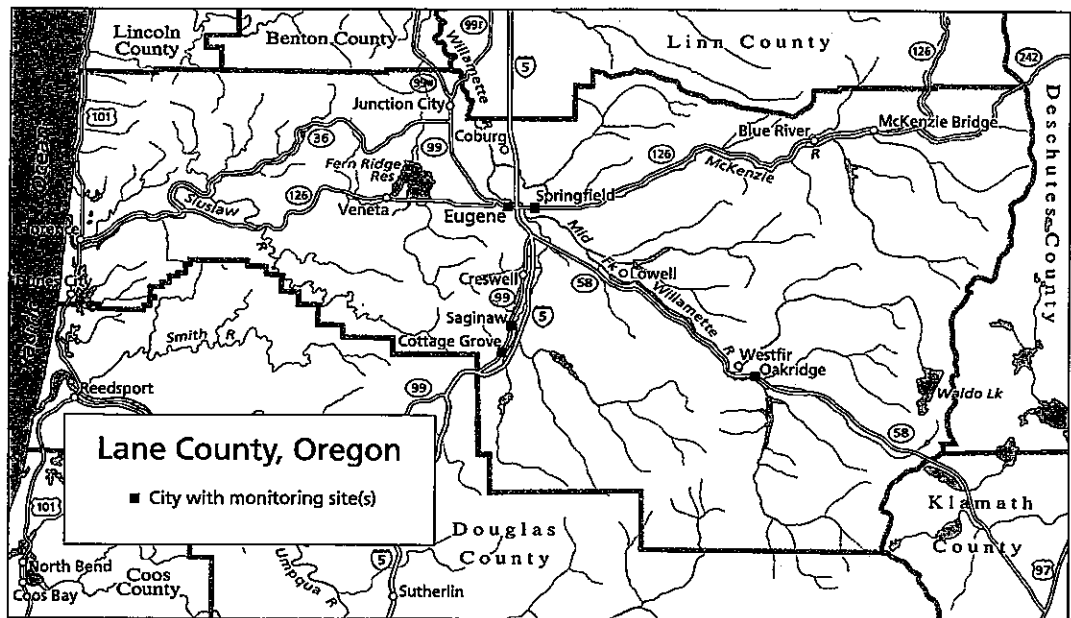
# NAAQS and Local Air Quality

The Environmental Protection Agency (EPA) has established health standards for six outdoor air pollutants (criteria pollutants): particulate matter (PM<sub>10</sub>), ozone (O<sub>3</sub>), carbon monoxide (CO), sulfur dioxide (SO<sub>2</sub>), nitrogen dioxide (NO<sub>2</sub>) and lead (Pb). These standards, the National Ambient Air Quality Standards (NAAQS), are required to be met everywhere in the US. The concentration of criteria pollutants must be continually measured to ensure the standards are met. Areas that fail to meet the NAAQS are designated as federal "non-attainment" areas by EPA and are required, by law, to have developed strategic plans designed to bring the area back into compliance with the standards.

### Lane County Pollutants

In Lane County, three criteria pollutants are measured: particulate matter (PM<sub>10</sub>), carbon monoxide and ozone. The Eugene/Springfield area is monitored for all three pollutants, while the city of Oakridge is monitored for PM<sub>10</sub>. Both the Eugene/Springfield area and Oakridge have been designated as PM<sub>10</sub> non-attainment areas. The Eugene/Springfield area was designated a "non-attainment" area in 1987. Oakridge was proposed a "non-attainment" area in September 1992. PM<sub>10</sub> standards were last exceeded in 1987 in the Eugene/Springfield area. Oakridge exceeded the federal standard five of the last six years monitored.

LRAPA measures pollutants at four locations in Eugene, two locations in Springfield, one location in Oakridge (southeast of Eugene/Springfield), one location in Saginaw (south of Eugene/Springfield) and one location in Cottage Grove (south of Saginaw).



# Criteria Pollutants

Pollutant	Particulates PM <sub>10</sub>	Carbon Monoxide CO	Ozone O <sub>3</sub>	Nitrogen Dioxide NO <sub>2</sub>	Sulfur Dioxide SO <sub>2</sub>	Lead Pb
<b>Description</b>	Respirable particles less than 10 microns in size	An odorless, tasteless, colorless gas which is emitted primarily from many forms of combustion	A 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	A poisonous gas produced when nitrogen oxide is a by-product of sufficiently high burning temperatures	A pungent, colorless gas that combines with water vapor to become sulfurous acid (H <sub>2</sub> SO <sub>3</sub> ), a mildly corrosive compound; when sulfurous acid combines with oxygen, it produces sulfuric acid (H <sub>2</sub> SO <sub>4</sub> ), a very corrosive and irritating chemical	A widely used metal, which may accumulate in the body
<b>Sources</b>	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	Combustion processes: fossil fuel power motor vehicles industry Explosives manufacturing Fertilizer manufacturing	Fossil fuel power plants Non-ferrous smelters Kraft pulp production	Leaded gasoline Smelting Battery manufacturing Battery recycling
<b>Health Effects</b>	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, lightheadedness, 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	Harmful to lungs, irritates bronchial and respiratory systems; increases adverse symptoms in asthmatic patients.  Precursor to ozone, contributes to acid fog and rain	Increases the risk of adverse symptoms in asthmatic patients; harmful to plant life, irritates respiratory system  Dissolves stone and corrodes iron and steel	Disturbs motor function and reflexes; impairs learning; causes intestinal distress, anemia and damage to the central nervous system, kidneys and brain  Children more adversely affected than adults

# Criteria Pollutants

# Local Pollution Stats.

Yearly PM<sub>10</sub> Levels — 1985-1993

Site #	Site Name	Notes	1985	1986	1987	1988	1989	1990	1991	1992	1993
2018039	Westmoreland Elementary School	a	—	—	—	39	28	20	—	—	—
		b	—	—	—	76	120	30	—	—	—
		c	—	—	—	74	91	26	—	—	—
		d	—	—	—	0	0	0	—	—	—
2018056	Lane Community College (downtown)	a	32	31	37	29	27	23	27	25	25
		b	197	85	129	72	91	50	95	61	68
		c	156	72	124	69	79	48	73	54	59
		d	3	0	0	0	0	0	0	0	0
2018058	Key Bank — Hwy 99N	a	—	39	43	37	34	31	38	31	33
		b	267	151.5	175	128.4	146	118	126	123	103
		c	234	117.4	174	148.1	125	102	121	98	92
		d	242	1	23	0	0	0	0	0	0
2018060	Amazon Park	a	34	27	32	26	39	24	34	25	24
		b	189	118	122	95	92	49	73	101	70
		c	152	67	117	91	86	46	62	55	64
		d	2	0	0	0	0	0	0	0	0
2030003	Willamette Acti. Center — Oakridge	a	—	—	—	34	—	33	37	32	32
		b	—	—	—	199	165	149	187	178	166
		c	—	—	—	177	122	142	184	161	151
		d	—	—	—	4	1	0	9	2	1
2033060	Springfield City Hall	a	—	—	35	34	28	25	30	27	28
		b	80	57	104	75	91	57	97	56	66
		c	62	52	96	67	71	56	89	55	61
		d	0	0	0	0	0	0	0	0	0
2033061	Springfield High School	a	—	—	—	—	—	—	29	31	25
		b	—	—	—	—	—	—	99	53	66
		c	—	—	—	—	—	—	85	53	60
		d	—	—	—	—	—	—	0	0	0
2009002	Harrison Elem. School — Cottage Grove	a	—	—	—	—	—	24	29	27	26
		b	—	—	—	—	—	77	132	69	68
		c	—	—	—	—	—	59	71	60	67
		d	—	—	—	—	—	0	0	0	0

1984

125  
102

**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

Yearly Carbon Monoxide Levels — 1985-1993

Site #	Site Name	Notes	1985	1986	1987	1988	1989	1990	1991	1992	1993
2018056	Lane Community College (downtown)	a	12.7	10.3	8.2	8.3	7.0	5.8	6.3	6.5	5.6
		b	9.5	9.6	7.6	8.2	6.0	5.5	6.2	5.5	5.4
		c	1	1	0	0	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	6.6	7.1
		b	—	—	—	—	9.5	6.3	7.7	6.4	6.8
		c	—	—	—	—	0	0	0	0	0

Standard:  
 8-hour average — 10 milligrams/cubic meter  
 1-hour average — 40 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

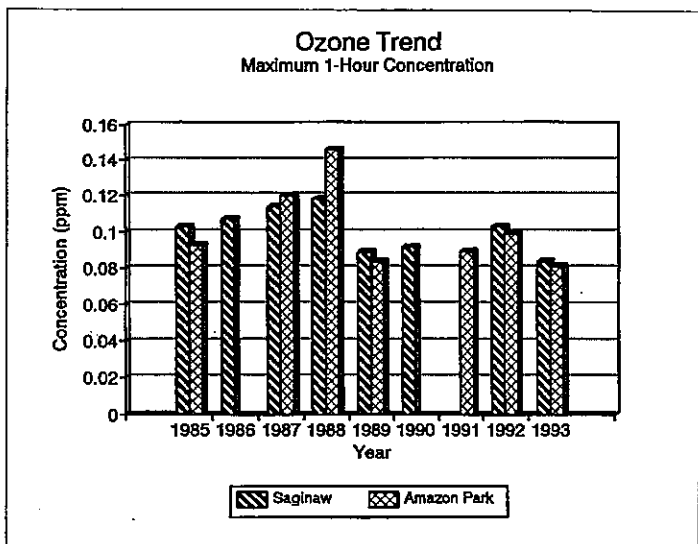
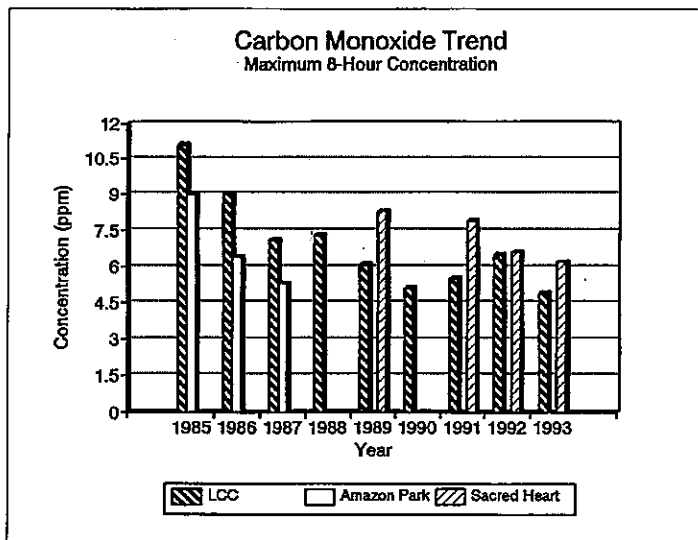
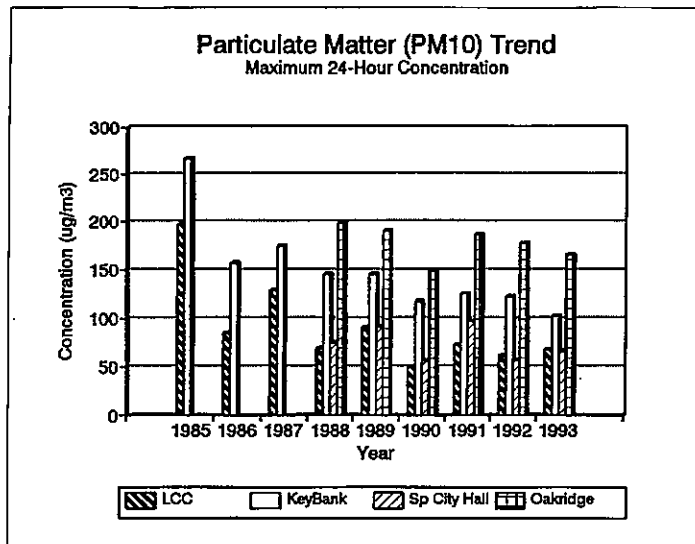
Yearly Ozone Levels — 1985-1993

Site #	Site Name	Notes	1985	1986	1987	1988	1989	1990	1991	1992	1993
2000036	Delight Valley School — Saginaw	a	202	210	224	232	174	180	184	202	165
		b	202	191	220	216	147	178	180	186	157
		c	0	0	0	0	0	0	0	0	0
2018060	Amazon Park	a	182	188	235	286	165	—	174	194	159
		b	175	184	218	241	149	—	172	186	143
		c	0	0	0	2	0	—	0	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

# Local Pollution Stats., Cont.'d



Air Pollution Index Summary Eugene-Springfield				
1989 Number of days				
	Good	Moderate	Unhealthful	Total
CO	85	32	0	117
O <sub>3</sub>	104	19	0	123
PM <sub>10</sub>	85	39	0	124
<b>Totals</b>	<b>274</b>	<b>90</b>	<b>0</b>	<b>364</b>
1990 Number of days				
	Good	Moderate	Unhealthful	Total
CO	152	5	0	157
O <sub>3</sub>	122	18	0	140
PM <sub>10</sub>	47	15	0	62
<b>Totals</b>	<b>321</b>	<b>38</b>	<b>0</b>	<b>359</b>
1991 Number of days				
	Good	Moderate	Unhealthful	Total
CO	135	14	0	149
O <sub>3</sub>	107	28	0	135
PM <sub>10</sub>	37	44	0	81
<b>Totals</b>	<b>279</b>	<b>86</b>	<b>0</b>	<b>365</b>
1992 Number of days				
	Good	Moderate	Unhealthful	Total
CO	138	29	0	167
O <sub>3</sub>	104	37	0	141
PM <sub>10</sub>	38	20	0	58
<b>Totals</b>	<b>280</b>	<b>86</b>	<b>0</b>	<b>366</b>
1993 Number of days				
	Good	Moderate	Unhealthful	Total
CO	115	21	0	136
O <sub>3</sub>	128	11	0	139
PM <sub>10</sub>	54	36	0	90
<b>Totals</b>	<b>297</b>	<b>68</b>	<b>0</b>	<b>365</b>

EPA has established specific operating schedules and reporting requirements for monitoring each criteria pollutant. Monitoring and frequency schedules for states are determined by geographic location and severity of the problem.

### **Fine Particulate Matter (PM<sub>10</sub>)**

- ❖ Sixty to 365 24-hour concentrations must be taken per year on a set schedule. The number of samples required per year depends on the severity of the problem.
- ❖ The number of 24-hour concentrations greater than 150 micrograms/cubic meter in any calendar year indicate the number of exceedances of the *daily* standard. The standard allows one 24-hour exceedance per calendar year.
- ❖ An arithmetic mean of all 24-hour concentrations measured in a calendar year greater than 50 micrograms/cubic meter indicates an exceedance of the *annual* standard.

### **Carbon Monoxide (CO)**

- ❖ Hourly concentrations must be measured continuously year-round.
- ❖ The number of one-hour concentrations greater than 40 milligrams/cubic meter in any calendar year indicates the number of exceedances of the *one-hour* standard. The standard allows for one one-hour exceedance per calendar year.
- ❖ The number of eight-hour concentrations greater than 10 milligrams/cubic meter indicates the number of exceedances of the *eight-hour* standard per calendar year. The standard allows for one eight-hour exceedance per calendar year.

### **Ozone (O<sub>3</sub>)**

- ❖ Hourly concentrations are measured continuously on a federally determined schedule. Oregon is required to measure ozone levels from May through September.
- ❖ The number of one-hour concentrations greater than 235 micrograms/cubic meter in any calendar year indicates the number of exceedances of the *one-hour* standard. The standard allows one one-hour exceedance per calendar year.

### **Nitrogen dioxide (NO<sub>2</sub>)**

- ❖ Hourly concentrations must be measured continuously year round.
- ❖ The arithmetic mean of all the hourly concentrations measured in a calendar greater than 100 micrograms/cubic meter indicates an exceedance of the *annual* standard.

### **Sulfur Dioxide (SO<sub>2</sub>)**

- ❖ Hourly concentrations must be measured continuously year-round.
- ❖ The number of 24-hour concentrations greater than 365 micrograms/cubic meter indicates the number of exceedances of the

24-hour standard per calendar year. The standard allows for one exceedance per calendar year.

- ❖ The arithmetic mean of all the hourly concentrations measured in a calendar year greater than 80 micrograms/cubic meter indicates an exceedance of the *annual* standard.

**Lead (Pb)**

- ❖ Samples for lead analysis are collected once every six days throughout the year.
- ❖ A composite analysis of samples taken during any calendar-year quarter greater than 1.5 micrograms/cubic meter indicates an exceedance of the *quarterly* standard.

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**Lane County Monitoring Schedules**

**Fine Particulate (PM<sub>10</sub>)**

- ❖ Eugene/Springfield: Sampling is required once every six days continuously year-round. LRAPA samples daily from October 1 through March 31. Samples are taken over a 24-hour period from midnight to midnight.
- ❖ Oakridge: Daily sampling is required from October 1 through March 31. Samples are required once every six days from April 1 through September 30. Samples are taken on a 24-hour basis.

**Carbon Monoxide**

- ❖ Eugene/Springfield: Monitoring is required continuously year-round. The average hourly concentrations are reported.

**Ozone**

- ❖ Eugene/Springfield: Monitoring is required continuously during the operating schedule of April 1 through October 31. The average hourly concentrations are reported.

**Lead**

- ❖ Eugene/Springfield: A composite of all samples taken during a quarter is analyzed. Analyses are required once each calendar quarter.



LRAPA uses the following techniques to sample and monitor air pollutants in Lane County

## **PM<sub>10</sub>**

**Hi-Volume Sampler:** Samples are collected with "high-volume" samplers which operate somewhat like a vacuum cleaner. The method uses pre-weighed 8" x 10" quartz fiber filters. Air is drawn through a separator which allows particles less than 10 microns in size to pass. These small particles are then collected on the quartz filter. The flow-rate through the filter is 40 cubic feet per minute. After 24 hours of sampling (midnight to midnight), the sample filter is removed and weighed. The sample weight is expressed as micrograms of particulate per cubic meter of air sampled. Hi-volume samples are routinely taken every sixth day at each sampling site. Additional samples are collected at selected sites because of special studies or poor air quality.

**Medium-Volume Sampler:** Samples are collected with "medium-volume" samplers which draw air through pre-weighed quartz fiber filters at about 1.13 cubic feet per minute. The samplers can collect particles on two separate filters simultaneously allowing for chemical analysis of particulate matter at a later date. After 24 hours of sampling (midnight to midnight), the sampler automatically sequences to the next filter set and begins taking another 24-hour sample. The difference between the starting weight and ending weight of the filter is the sample weight and is expressed as micrograms of fine particulate per cubic meter of air sampled. Samples are collected every day on a seasonal basis at some sites.

## **Carbon Monoxide**

**Non-dispersive Infrared (NDIR):** Infrared energy from a source is passed through a cell containing the gas sample to be analyzed and simultaneously through a reference cell containing the same gas from which the CO has been removed. Carbon monoxide in the sample absorbs some of the energy, creating an out-of-balance condition in the detector. The imbalance is proportional to the amount of carbon monoxide in the sample air and is electronically amplified and recorded.

## **Ozone**

**Ultraviolet Photometry:** The air sample enters a chamber with an ultraviolet source at one end and detector at the other. The ozone in the sample stream absorbs the ultraviolet light at a specific wavelength. The amount absorbed is proportional to the amount of ozone in the air stream. The detector then sends an amplified signal to the recorder.

**Chemiluminescence:** The air sample enters a chamber where it is mixed with ethylene gas. The ethylene reacts with ozone to produce a light whose intensity is proportional to the concentration of ozone in the air sample.

## **Lead**

**High-Volume Sampler:** Samples are taken with equipment similar to the PM<sub>10</sub> sampler without a size-selective inlet. Glass filters are used to collect suspended particles, which are then analyzed for lead content.

Two areas within Lane County have home wood heating advisory curtailment programs, the Eugene/Springfield area, a federally designated non-attainment area, and the city of Oakridge, a federally proposed non-attainment area. Both programs were designed and implemented to improve air quality in their respective regions, each comprising elements which fit the demographics of the community.

Home wood heating programs in Lane County have been initially developed as volunteer programs, to become mandatory at a later date. EPA requires implementation plans with enforceable strategies be developed for  $PM_{10}$  non-attainment areas. When residential wood stove smoke has proved to be a major source of  $PM_{10}$  emissions, mandatory home wood heating programs are an acceptable component of the plan. The Eugene/Springfield area's home wood heating program is mandatory. The Oakridge home wood heating program will remain voluntary until its  $PM_{10}$  air quality plan is approved.

Home wood heating programs in Lane County use a "green," "yellow," "red," advisory system to inform residents whether or not residential wood burning is allowed. The programs do not generally ban the practice of burning, but rather ban visible emissions during "red"

advisory periods. This allows residents who can burn cleanly without visible smoke to continue to use their wood burning appliance. When air quality is good, a "green" advisory is called. Residents may burn with assurance that doing so will not be detrimental to air quality. A "yellow" advisory is called when air quality is beginning to deteriorate. Residents are asked to refrain from burning as much as possible. When the pollution levels near an unhealthy stage, a "red" advisory is called.

Residents are notified of the daily advisories through local media, such as newspapers, and radio and television stations. In addition, residents may call a 24-hour advisory line for up-to-date advisory information.

## Lane Co. HWH Programs

<b>Firewood</b>	<b>Available Heat</b>
Tree Species	Million Btu/Cord 20% Moisture
Alder	20
Apple	35
Ash	27
Birch	24
Cedar	16
Cherry	25
Cottonwood	17
Elm, American	18
Fir, Douglas	23
Fir, White	19
Hemlock	21
Juniper	25
Madrone	34
Oak, Red	29
Oak, White	33
Maple	25
Pine, Lodge pole	20
Pine, Ponderosa	18
Pine, White	18
Poplar	12
Walnut, Black	25
Walnut, English	25
Willow	16

**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.

**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**

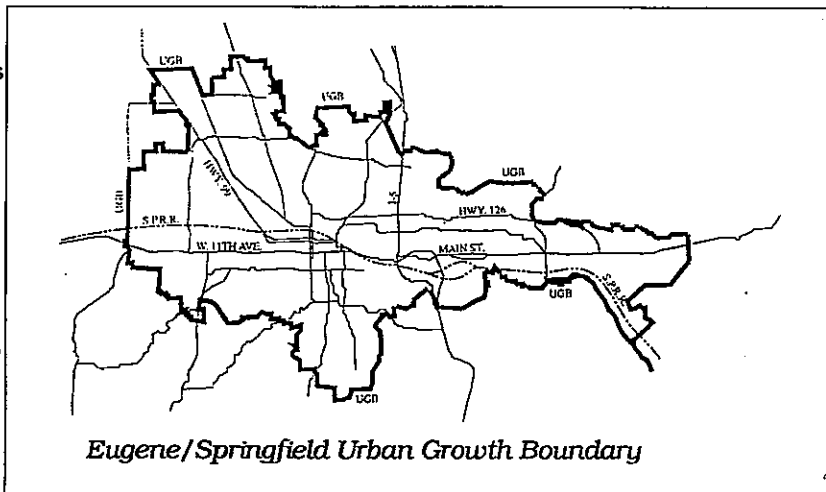
- ✓ Major area radio stations
- ✓ Local television stations during weather portion of newscasts
- ✓ Local newspapers
- ✓ Eugene/Springfield area home wood heating call line — **746-HEAT**
- ✓ Oakridge home wood heating call line — **782-2414**

The Eugene/Springfield area began its home wood heating advisory program in 1986 to reduce pollution caused from residential home heating, a major wintertime source of particulates in the Eugene/Springfield area. The area was designated a federal non-attainment area in 1987, after violating the federal PM10 standards on various occasions in past years. The program remained volunteer until January 1991, when it was changed to mandatory as part of LRAPA's federally required implementation plan designed to bring the area back into compliance with PM<sub>10</sub> standards.

The Eugene/Springfield mandatory program is in its third season. Residents living within the Eugene/Springfield Urban Growth Boundary (ESUGB) are affected by the program, which runs from November 1 through the end of February each year. Residents whose sole source of heat is wood, and those who qualify under economic need guidelines may be granted exemptions from the

program on a yearly basis. However, sole source exemptions will be granted only through June 30, 1996.

In addition to the "green," "yellow," "red," advisory, the mandatory program includes a Phase II "red"



advisory, which prohibits all burning in wood stoves without an exemption in cases of severe deterioration in air quality.

Because this program is mandatory, residents who violate a red advisory provision may be fined \$50 to \$500. No "red" advisory periods have been called since inception of the mandatory program, nor have the PM<sub>10</sub> standards been exceeded since 1987, when levels rose above the standards on three occasions.

# Eug./Spfld. HWH Program

## 1993 Home Wood Heating Exemptions

Number of applications received	346
Number of exemptions granted	346
Economic need exemptions	67
*Sole source exemptions	262
Economic need/sole source exemptions	17
Number of exemptions denied	0
*Sole source exemption sunsets 6/30/96	

On September 9, 1992, EPA proposed Oakridge as a "non-attainment" area for failing to meet federal PM<sub>10</sub> ambient air quality standards. LRAPA had earlier begun to research and develop a federally approved plan designed to bring pollution levels back into compliance with federal standards. During 1993, LRAPA continued to work closely with the city of Oakridge to develop strategies to improve the community's air quality. Studies and projects continued throughout the year. Results will be used to determine which strategies should work best. The following projects were conducted during 1993.

#### **HWH Advisory Curtailment Program**

The Oakridge voluntary home wood heating advisory program was adopted in 1989 by the city of Oakridge, after air quality data showed Oakridge exceeds the federal PM<sub>10</sub> standards. The 1992-'93 season marked the fourth season of the program. Like the Eugene/Springfield program, the Oakridge HWH season runs November 1 through February each year, and uses a "green," "yellow," "red," advisory system.

#### **Demonstration Project**

The 1992-93 Oakridge demonstration project, aimed to improve air quality by replacing uncertified wood stoves with cleaner heating systems, provided funds to replace more than 80 wood stoves in the community. Oakridge was granted \$238,000 in funding in the form of grants and no-interest loans to replace old, uncertified wood stoves with electric, propane or oil heat systems, pellet stoves or certified wood stoves. Grant and loan funding was divided equally, with \$119,000 available for each. Funding was limited to \$2,500 per household. At year-end, \$8,000 remained available for grants, and about \$50,000 remained for loans. With funding still available, the

project, originally scheduled for completion in June of 1993, was extended to June 1994.

As of December 31, 1993, 83 uncertified wood stoves were replaced. Of those replacements, 35 were replaced with certified wood stoves, 34 with pellet stoves, 10 with heat pumps or other electric systems, two with gas or propane and two with oil systems.

The project targeted primarily residents at low-to-moderate income levels. Results from surveys conducted prior to the demonstration project estimated 750 homes in the city were equipped with wood stoves or fireplaces. LRAPA has estimated roughly 250 uncertified stove replacements will be necessary to meet federal air quality standards. Gains made from the replacement project will be counted toward the overall reduction requirement. Additional measures, such as mandatory curtailment and restrictions on installation of wood heating appliances in new home construction may also be strategies used to meet the standards.

#### **Visual wood stove survey**

Results from a recent Oakridge visual wood stove survey determined that fewer people are using wood stoves and fireplaces in Oakridge than they were five years ago. Results also suggest that a number of residents are following the home wood heating advisories, and are using alternative heat systems during periods of high pollution levels, while others are not.

The survey, conducted during the first extended cold-snap of the season, consisted of visual checks of residential chimneys for smoke. Three Oakridge neighborhoods were surveyed on four separate occasions. A total of 158 chimneys were surveyed. Surveys were taken during one "green," one "yellow" and

two "red" advisory periods. For consistency, neighborhoods were surveyed at the same time each day and all surveys took place on weekdays. Results show more residents burn during green advisory periods than during either yellow or red advisory periods. This is encouraging.

A high percentage of compliance with advisories was not evident for days with red advisories. Survey results showed that residents refrained from burning during the first "red" advisory period of the season, with 40 chimneys emitting smoke compared to 61 during a "green" period. However, during a subsequent "red" period two days later, 50 chimneys were emitting smoke. In addition, more people were using wood heat during the second red advisory period than the previous "yellow" day, when 46 chimneys were in use.

Results from this survey will be used to estimate the level of voluntary compliance with the advisory system. From the results of several such surveys, LRAPA will be able to determine if a voluntary system is likely to be successful in Oakridge

or if a mandatory system will be necessary to bring the area back into compliance with federal standards.

#### **Comparative saturation study**

LRAPA has scheduled a saturation study for early 1994 to determine benefits gained from the 1992-'93 wood stove replacement program. Seven sites within the city will be monitored for PM<sub>10</sub> over a 20-day period, for comparison with concentrations monitored at the same sites in prior years. The comparison of concentrations prior to the replacement program and after program completion will enable the agency to determine the extent of reduction gained to number of stoves replaced. The information is vital in developing a credible SIP. In addition, chemical analyses will be conducted on samples conducted at four sites to determine sample composition. With this information, LRAPA will have data to accurately target PM<sub>10</sub> problem sources.

# Eug./Spfld. CO Redesignation

EPA published notice on December 6, 1993, for final approval of Eugene/Springfield's carbon monoxide "attainment" redesignation, pending public comment. No requests for comment were submitted by the January 5, 1994, deadline, making the redesignation status effective February 4, 1994.

Carbon monoxide (CO) is a colorless, odorless gas mostly caused by incomplete combustion in motor vehicles and industrial facilities. CO deprives the body of oxygen by reducing the blood's capacity to carry oxygen, causing headaches, dizziness, nausea, listlessness, and in high doses, even death.

The Eugene/Springfield area was designated a "non-attainment" area in 1978, for failing to meet federal CO air quality standards. LRAPA, the City of Eugene and the Lane Council of Governments (LCOG) developed and implemented an emissions reduction plan, based on Eugene's Central Area Transportation Study and LRAPA's indirect source permitting program.

In 1989, LRAPA and LCOG filed a request to EPA through the Oregon Department of Environmental Quality, to have the Eugene/Springfield area redesignated in attainment with CO air quality standards. Carbon monoxide levels measured in the downtown area of Eugene had remained within the federal standards for several years prior to '89 and studies conducted by LRAPA demonstrated attainment should be maintained through the year 2000. As part of the redesignation process, EPA requires states to develop a plan which demonstrates attainment can be maintained ten years out.

LRAPA began monitoring CO in 1971 and has maintained a continuous monitoring site for CO at the Lane Community College Downtown Center located in the central business district in downtown Eugene. It was data from this site that led to

the 1978 "non-attainment" designation. LRAPA has continued to monitor CO at that site since implementation of the plan, and has added one additional site at Sacred Heart Hospital. Since the last violation recorded in 1980, Eugene/Springfield has had 12 years of data with no recorded violation of the CO standard.

Besides the local implementation of transportation planning and the indirect source permitting program, a major factor in the CO emissions reduction was vehicle fleet turn-over and new car emission standards. Managing the pace of increased vehicle miles traveled and resultant traffic congestion will be an important factor in maintaining the standard in the future. Further benefits from 1994 new car emission controls are expected over the short term, however, LRAPA believes that eventually the benefit will be reduced and possibly overcome by a continued increase in use of the automobile.

The 1993 Regular Session of the Oregon Legislature resulted in three bills enacted into law which affect air programs in Oregon. Two of the three bills affect both state and local agencies and were necessary to fulfill requirements of the Clean Air Act Amendments of 1990. The third bill, introduced at the request of LRAPA, affects the local authority.

**Senate Bill 912 — Environmental Crimes Act of 1993**

The Environmental Crimes Acts of 1993 established that the following environmental crimes would be felonies or misdemeanors: unlawful disposal, storage, treatment or transportation of hazardous waste; unlawful air pollution; and unlawful water pollution. The bill also creates the crimes of environmental endangerment, supplying false information, and refusal to supply information to authorized environmental agencies.

A first degree felony is committed when an act is knowingly committed in violation of the law and either recklessly causes substantial harm to human health or the environment, or in committing the act, there is knowing disregard for the environmental law. Conviction can result in penalties of up to \$200,000 and 10 years in jail.

A misdemeanor is committed when a person knowingly treats, stores, disposes or transports hazardous waste in violation of the law; knowingly violates any air quality statute, rule, order, permit or "applicable requirement;" or, violates any water quality statute, rule, order or permit with criminal negligence. The penalty, as it relates to "air" violations, may result in penalties of up to \$10,000.

The Act also defines as an enhanced felony criminal environmental endangerment if, while committing a felony as described in the Act, another person is placed in imminent danger of death or is caused

serious physical injury. Conviction of an individual may result in a fine of up to \$1,000,000 and 15 years imprisonment; of a business or corporation, a \$2,000,000 fine and 15 years imprisonment. A second conviction may result in a fine of up to \$5,000,000 and 30 years imprisonment.

The Act also includes language relating to submittal of false information, refusal to furnish information, and the conscious avoidance of knowledge of conduct or circumstance in violation of the law.

**Senate Bill 86**

Senate Bill 86 enables state and local air agencies to recover costs of implementing provisions of the CAA from all sources subject to regulation under the Federal Operating Permit Program of Title V of the CAA.

Specifically, there are five provisions to the law.

The law requires highest and best practicable treatment on certain air contaminant sources by a condition of the source's permit where there is no state or local emission limit or standard established for the source or emission. This is determined by information the regulating agency has on similar existing control equipment used on the source type.

Secondly, the law modifies the five-day advance notice warning requirement by eliminating the notice requirement when assessing civil penalties to Title V sources.

The law also exempts sources subject to the Federal Operating Permit Program from the requirement to submit to air agencies notices of construction. Sources must, however, continue to revise their operating permit once construction is completed.

In addition, the law raised 1992 interim emission fees of Title V



sources to \$23.50 per ton, up from the previous \$13 per-ton fee. It establishes a \$25 per-ton emission fee beginning November 1994, with an inclusion for a consumer price index adjustment (CPI), and establishes user fees for non Title V sources for such things as modification and review of source installed ambient monitoring networks. The fee portion of the law also establishes a \$2,500 base fee (with CPI adjustment) in addition to the \$25 emission fee for Title V sources.

**House Bill 2847**

Passage of House Bill 2847 granted regional air pollution authorities clear authority to exercise procedures needed to implement federal CAA requirements in Lane County.

Provisions of this bill clarify LRAPA's authority to adopt administrative rules and standards, specifically give the local agency authority to enter property to conduct investigations needed to enforce federal CAA provisions, and provide clear authority to impose civil penalties on permit holders in violation of CAA provisions. LRAPA requested these amendments to minimize the risk of legal challenge to certain authorities, which the agency has been exercising under other statutes granting general powers, but where none of the above powers was explicitly stated.

Rulemaking continues to be an integral part of agency administrative procedures with passage of the 1990 federal Clean Air Act Amendments. In 1993, LRAPA completed the amendment and adoption of five rules, and developed major proposed amendments to two additional rules.

New federal regulations have required changes in state and local rules which apply in federal non-attainment areas (areas in violation of national ambient air quality standards). Three LRAPA regulations were amended to meet these changes. Specifically, Title 38, "New Source Review," and associated changes to Titles 12, "Definitions," and 34, "Air Contaminant Discharge Permits," were amended. Two additional regulations, Title 30, "Incinerator Regulations," and Title 15, "Enforcement Procedures and Civil Penalty Regulations," were in the process of being amended at yearend.

In addition to revising regulations due to federal requirements, LRAPA completed the adoption of permanent home wood heating enforcement rules (Title 16) and amended open burning rules (Title 47) to incorporate an additional fire district into those districts governed by LRAPA's seasonal restrictions.

#### **Titles affected by Clean Air Act requirements**

##### **Title 38, New Source Review**

Title 38 was amended to require "state-of-the-art" emission controls for certain new or modified sources. In addition, other amendments to this rule affect new major sources of nitrogen oxide (NOx) and volatile organic carbon (VOC) emissions. The CAA requires these sources, when located in ozone non-attainment areas, to offset their new NOx or VOC emissions by reducing NOx or VOC emissions from existing sources so there is an overall net 10 percent reduction. (Lane County has no ozone non-attainment areas.)

Other revisions affecting all non-attainment areas include specifically disallowing emission reductions required by federal, state or local regulations as emissions offsets, and disallowing the use of emission reductions from permanent source shutdowns as growth increments for new industries.

An additional section was added to accommodate visibility impact requirements in National Parks and Wilderness Areas (section 38-055). This amendment provided for a detailed analysis of the potential impact of major sources and major modification of Class I National Park and Wilderness Areas.

##### **Title 12, Definitions**

Title 12 was amended to accommodate revisions of Title 38.

##### **Title 34, Air Contaminant Discharge Permits**

Title 34 was amended to remove redundancy. The title was amended to eliminate the "approval to construct" provisions from sources required to have a permit prior to construction.

##### **Title 15, Enforcement Procedures and Civil Penalties — in development**

Proposed amendments to Title 15 regulations include revision of the civil penalty matrix; a new classification of selected violations according to level of risk or harm; new enforcement category; removal of the five-day warning period for most all civil penalties; the development of methodology for determining if a violation is a major, moderate or minor deviation from standards; and development of an economic benefit calculation separate and in addition to the penalty calculation.

##### **Title 30, Incinerator Regulations — in development**

Incinerator rules have to this date been incorporated in Title 33, "Prohibited Practices and Control of

Special Classes." Title 30 will rescind Section 33-020 of Title 33 and adopt a new Title 30, "Incinerator Regulations." Title 30 establishes more restrictive emission limits on opacity and specifically limits emissions of certain hazardous air contaminants. In addition, the proposed rules would require operators of affected facilities to ensure that specified operational parameters, such as temperature and residence time, are maintained during operation, that those parameters be monitored, and that proof of compliance be demonstrated through source tests and periodic reporting.

**Other Title Changes**

**Title 47, Outdoor Open Burning**

Title 47 was amended to add the Westfir Rural Fire Protection District to the list of 22 other rural districts covered by seasonal open burning restrictions.

**Title 16, Home Wood Heating Curtailment Program Enforcement**

Title 16 makes permanent the temporary home wood heating curtailment enforcement rules, adopted in November 1992.

LRAPA recorded its fewest number of complaints in six years in 1993, in part due to the low number of field burning complaints the agency received during the year. Total complaints in '93 numbered 589, about 30 percent less than in '92 when 833 complaints were recorded.

Complaints are compiled on a monthly basis into one of ten categories: industry, fugitive dust, open burning, field burning, slash burning, backyard burning, home wood heating, miscellaneous, general and unknown sources. Typically, the greatest number of complaints involves agricultural field burning and industry, as was true for 1993, when the agency received 187 field burning and 111 industry-related complaints.

Although the largest number of complaints were field burning complaints, when compared to other years, that number was very low. Field burning complaints peaked in 1991 (834 total) when much publicity was given to the practice of field burning during the 1991 Oregon Legislative Session. Since then, the number has continued to drop, likely in part due to state legislation which phases down the practice of field burning over the next few years.

Field burning complaints were down 55 percent from 1992 totals; however, fugitive dust complaints, often associated with agricultural practices, were up 100 percent. Dust complaints were still few in number, with only 14 for the year.

The number of industry-related complaints received was typical for a given year. With the exception of 1991, which was unusually high again possibly due to legislative attention, the yearly total of industry-related complaints has not varied more than 10 percent in six years.

Home wood heating complaints, which rose sharply with the inception of the mandatory advisory

program in 1990, have stayed fairly constant since. LRAPA believes that is in part due to increased public education and the resulting knowledge people have gained regarding health implications of wood stove smoke.

The single complaint category with the largest percentage drop from 1992 was slash burning, with a 62 percent decrease. Slash burning complaints have remained low since 1991. Timber harvesting dropped in 1991, and has continued to drop since, confirming the correlation between the reduction in timber harvest and consequential burning, and the number of slash burning complaints the agency received.

# Complaints / Enforcement

Complaints						
Year	1988	1989	1990	1991	1992	1993
Backyard burning	59	46	54	46	60	63
Dust	13	8	0	11	7	14
Field burning	344	349	508	834	417	187
General air quality	13	9	24	17	2	5
Home wood heating	26	29	50	49	40	53
Industry	110	100	114	146	111	111
Miscellaneous *	(32)	(68)	120	59	47	19
Open burning *	--	--	85	59	69	85
Slash burning	67	41	247	28	42	16
Unknown	2	30	36	58	38	36
Total	666	680	1238	1307	833	589
* Began calculation in 1990						
Miscellaneous totals in 1988, 1989 include all complaints logged in categories not listed on this chart						

Enforcement Actions						
Year	1988	1989	1990	1991	1992	1993
Administrative warnings and Notices of non-compliance	5	14	2	10	10	18
Notices of violation	11	16	11	19	10	8
Notices of violation with civil penalty	9	8	8	23	11	26
Total \$\$ collected	3,300	4,640	1,250	10,565	5,500	29,560

Open burning practices in Lane County changed in several ways in 1993. LRAPA began enforcing new restrictions on open burning practices established in '92, the Westfir Rural Fire Protection District joined the group of rural fire districts governed by seasonal restrictions on residential open burning, and regulation and enforcement of slash burning not covered by the Department of Forestry's (ODOF) smoke management plan was abandoned by ODOF.

❖ 1992 amendments to LRAPA's open burning rules prohibit residential open burning on lots less than one-half acre in size within the Eugene/Springfield Urban Growth Boundary (ESUGB). In addition, material allowed burned on lots within the ESUGB is limited to woody yard debris only. At the end of the 1992 open burning season, June 16, 1993, LRAPA staff began enforcing the amended regulations. Public education was heavily emphasized during the first year of enforcement, although residents who violated the rule were subject to fines up to \$100.

❖ In October 1993, the LRAPA Board of Directors amended the open burning rules at the request of the Westfir City Council to include the Westfir Rural Fire Protection District in LRAPA's regulations regarding fire districts that abide by seasonal restrictions.

❖ This year LRAPA undertook the regulation of the practice of slash burning in areas not covered under ODOF's smoke management plan. ODOF amended its rules limiting its slash burning regulations only to land within established forest protection districts. Prior to 1993, ODOF took responsibility for regulating these burns although the burns were outside the department's regulatory jurisdiction. LRAPA undertook the regulation of open burns of this nature, applying the same criteria regarding the burning of logging slash as the agency does to land clearing — that all reasonable alternatives be exhausted prior to burning, including salvaging and chipping.

## Open Burning Highlights

# Field Burning Highlights

As reported by the Oregon Department of Agriculture, open field burning in 1993 totaled 74,086 acres in western Oregon. In the south Willamette Valley of western Oregon, 43,114 acres were open burned in '93, down about 20 percent from '92 figures. Open burning of harvested perennial and annual grass seed and cereal grain crops is practiced as a means of straw disposal and ground sanitation. Oregon law allowed up to 165,000 acres to be open burned during 1993.

Fields propane flamed during the season totaled 16,404 acres, down 40 percent from the '92 figure of 27,178. During the '93 stack/pile burn season, which runs through March of 1994, the Oregon Department of Agriculture estimates straw from 21,425 acres has been stacked for burning. That compares with

14,574 acres stack/pile burned in '92.

No official smoke intrusions were measured in the Eugene/Springfield metropolitan area during the '93 season. Intrusions were officially measured in both cities in each of the previous five years. LRAPA staff received 186 field burning complaints this season, the fewest since 1988 and less than half the number received during the '92 season.

The total acreage burned in western Oregon, including open, propane flame and stack/pile burning (using estimated stack/pile burn figures) in 1993 was 80,943 acres, compared to 95,522 acres in '92. Acreage propane flamed and stack/pile burned is not recorded separately for the south Willamette Valley, making it impossible to determine the total acreage burned in the local area.

FIELD BURNING - YEAR-END TOTALS

Year end	S. Willamette acres burned	Number of intrusions	Impact hours	Number of complaints
1993	43,114	0/Eug. 0/Spfld.	0/Eug. 0/Spfld.	186
1992	51,813	2/Eug. 1/Spfld.	12/Eug. 11/Spfld.	417
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

Community outreach and public education are important parts of LRAPA's general program. Increased public awareness about the health effects of poor air quality is essential with a program such as LRAPA's, which depends on individual and community ownership of local air-quality issues.

LRAPA provides these services to the community in several different ways.

- ❖ **Local media:** Staff is in daily contact with local media, who, in turn, disseminate air quality information to the general public. Press releases, public service announcements and paid advertising are used to inform the public of important issues.
- ❖ **Print material:** LRAPA provides to the general public print information in the form of brochures, fact sheets, newsletters and annual reports. A large selection of brochures is available on a wide-range of topics, produced by LRAPA, DEQ, EPA and the American Lung Association.
- ❖ **Library materials:** The agency has an extensive library of air pollution literature which is open for public use during normal business hours. The Federal Register, case studies, scientific and environmental magazines, text books and statistical information are available in the library.
- ❖ **Presentations:** Staff members are frequently asked to speak on air-quality-related issues before service clubs, professional associations, public schools and private corporations.

- ❖ **Local fairs/trade shows:** LRAPA takes advantage of local fairs and events whenever possible as a means to enhance the public's awareness of air quality issues.

- ❖ **Intergovernmental projects:** Working with other agencies on air-quality-related projects has become commonplace for LRAPA. Several joint transportation-related projects were team efforts by LRAPA, Lane Transit District, the cities of Eugene and Springfield, and several state agencies to enhance local awareness. Projects promoting alternative modes of transportation have included direct mailings, transportation fairs, transportation demand management incentive programs with area businesses and participation in various transportation-related committees.



## Community Outreach





  
**LRAPA Phone Numbers**  
**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



260/6/93