



LRAPA
Lane Regional Air Protection Agency

State of Oregon Department of Environmental Quality and Lane Regional Air Protection Agency

Notice of Proposed Rulemaking

February 1, 2024

Lane Regional Air Protection Agency (LRAPA) Rules and Regulations Title 47 Outdoor Burning 2024

Hearing, March 14, 2024, at LRAPA's Board of Directors Meeting

This package contains the following documents:

- Notice of Rulemaking
- Draft Rules – Edits Highlighted
- Draft Rules – Edits Included (final clean version)

Note for Readers:

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Table of Contents

Introduction	1
Request for Other Options	1
Overview	1
Procedural Summary.....	1
Optional Additional Topic	Error! Bookmark not defined.
Statement of need	5
Rules affected, authorities, supporting documents.....	6
Documents relied on for rulemaking.....	6
Fee Analysis.....	7
Statement of fiscal and economic impact.....	8
Housing cost	9
Racial Equity	10
Environmental Justice Considerations	11
Federal relationship.....	13
Land use	14
EQC Prior Involvement.....	16
Advisory Committee	17
Public Engagement	18
Public Hearing.....	19
Accessibility Information.....	20
Supporting documents	21
Draft Rules – Edits Highlighted	22
Draft Rules – Edits Included.....	23

Introduction

LRAPA and DEQ invites public input on proposed permanent rule amendments to chapter 340 of the Oregon Administrative Rules via changes to LRAPA Rules and Regulations Title 47 Outdoor Burning.

Request for Other Options

During the public comment period, LRAPA staff asks for public comment on whether there are other options for achieving the rules' substantive goals while reducing the rules' negative economic impact on business.

Overview

Short summary

The City of Lowell, through Ordinance 308, has redefined the conditions under which recreational and religious ceremonial fires are allowed, and has detailed the time frames and conditions under which residential outdoor burning can take place. These changes necessitate updates to LRAPA Title 47 to maintain compliance and consistency.

The proposed updates are intended to facilitate compliance, enhance enforceability, and improve air quality outcomes, while preserving the core purpose of the LRAPA rules.

Procedural Summary

In response to Ordinance 308 enacted by the City of Lowell, Oregon, the Lane Regional Air Protection Agency (LRAPA) is preparing to update Title 47 – Outdoor Burning of its rules. These updates will ensure LRAPA's rules align with the latest regional regulations concerning outdoor burning practices, specifically those pertaining to recreational fires, religious ceremonial fires, and residential outdoor burning within the city limits of Lowell and its surrounding urban growth boundary.

The City of Lowell, through Ordinance 308, has redefined the conditions under which recreational and religious ceremonial fires are allowed, and has detailed the time frames and conditions under which residential outdoor burning can take place. These changes necessitate updates to LRAPA Title 47 to maintain compliance and consistency.

The proposed updates are intended to facilitate compliance, enhance enforceability, and improve air quality outcomes, while preserving the core purpose of the LRAPA rules.

The development of the State Implementation Plan (SIP) for these updates involves consultation with the Environmental Protection Agency (EPA) and the Oregon Department of Environmental Quality (ODEQ). Throughout this process, the team will ensure that these updates adequately represent the interests of the Lowell community, support regional air quality improvement efforts, and fulfill state and federal air quality mandates.

BACKGROUND

Board Action History. The LRAPA outdoor burning rules have been revised and updated several times since 1968, most recently in October 1999, October 2001, February 2008, and October 2017. Potential rule revisions were discussed with the LRAPA Board and Citizens Advisory Committee over the past few years. The Board held a public hearing on September 14, 2017, and adopted most of the proposed revisions on October 12, 2017, but did not adopt changes to the Eugene UGB requirements at that time. A public hearing was held on February 8, 2018 which allowed further review by the LRAPA Citizens Advisory Committee at their January 30, 2018 meeting. The Board adopted the agreed upon acreage changes after the second public hearing at their April 12, 2018 meeting with the changes effective on October 1, 2018.

Analysis. Prior to developing the proposed revisions, discussions were held with the City of Lowell regarding the changes to Ordinance 308. The red lined-strikeout version also includes a few minor housekeeping changes noted in the crosswalk review of the rule updating formatting along with language to align with DEQ's most current definitions.

More information

Information about this rulemaking is on this rulemaking's web page: www.lrapa.org

Public Hearings

LRAPA was granted authority to act as hearings officer and staff plans to hold one public hearing. Anyone can attend a hearing in person, or by webinar or teleconference.

Date: March 14, 2024

Start time: 12:30 PM

Street address: 1010 Main Street

Room: Large LRAPA Conference Room

City: Springfield, Oregon 97477

Teleconference phone number: +1 253 215 8782

Webinar link: <https://us02web.zoom.us/j/82551664224>

How to comment on this rulemaking proposal

LRAPA is asking for public comment on the proposed rules. Anyone can submit comments and questions about this rulemaking. A person can submit comments through an online web page, by regular mail or at the public hearing.

Comment deadline

LRAPA will only consider comments on the proposed rules that LRAPA receives in writing by 12:30 p.m., on March 14, 2024, along with oral comments made at the time of the public hearing at 12:30 p.m. on March 14, 2024.

Submit comment online

Any person can submit comments online by going to this rulemaking's web page: www.lrapa.org or via email to rules@lrapa.org.

Note for public university students:

ORS 192.345(29) allows Oregon public university and OHSU students to protect their university email addresses from disclosure under Oregon's public records law. If you are an Oregon public university or OHSU student you may omit your email address when you complete the online form to submit a comment.

By mail

LRAPA
Attn: Travis Knudsen
1010 Main Street
Springfield, OR 97477

At hearing

March 14, 2024

Sign up for rulemaking notices

Get email or updates about this rulemaking or other agency activities by joining the General News & Updates email listserv: <https://www.lrapa.org/air-quality-protection/public-calendar/sign-up-for-updates/>

What will happen next?

Following adoption by the LRAPA Board, LRAPA staff will include a written response to comments in a staff report and will submit the informational packet the Environmental Quality

Commission (EQC). LRAPA staff may modify the rule proposal based on the comments. The EQC will then consider and adopt the rule changes. Following that state adoption the rules are forwarded to the Environmental Protection Agency (EPA) for publication into the federal register.

Statement of need

What need would the proposed rule address?

The City of Lowell, through Ordinance 308, has redefined the conditions under which recreational and religious ceremonial fires are allowed, and has detailed the time frames and conditions under which residential outdoor burning can take place. These changes necessitate updates to LRAPA Title 47 to maintain compliance and consistency.

How would the proposed rule address the need?

LRAPA's outdoor burning rules provide a consistent basis for complaint response and help prevent nuisances and violations of PM_{2.5} National Ambient Air Quality Standards in Lane County.

How will DEQ know the rule addressed the need?

The outdoor burning control program will continue to require LRAPA's diligent implementation to minimize air pollution impacts and nuisances. Indicators of the success of this program will be attainment and maintenance of the PM₁₀ and PM_{2.5} air quality health standards, reduced impacts of residential outdoor burning on neighbors and fewer public complaints.

Rules affected, authorities, supporting documents

Lead division

Operations

Program or activity

Outdoor Burning

Chapter 340 action

Amend OAR 340-200-0040

Other authority

LRAPA title action

Amend LRAPA Title 47 Outdoor Burning

Statutory Authority - ORS				
468.020	468.065	468A.035	468A.135	

Documents relied on for rulemaking

Document title	Document location
Code of Federal Regulations	http://www.gpo.gov/fdsys/browse/collectionCfr.action?collectionCode=CFR
Federal Register	http://www.gpo.gov/fdsys/browse/collection.action?collectionCode=FR
Oregon Administrative Rules	https://secure.sos.state.or.us/oard/displayChapterRules.action?selectedChapter=80
Oregon Revised Statutes	https://www.oregon.gov/deq/Regulations/Pages/statutes.aspx
LRAPA Rules and Regulations	https://www.lrapa.org/air-quality-protection/about-lrapa/regulations-rules/

Fee Analysis

This rulemaking does not involve fees.

Statement of fiscal and economic impact

Fiscal and Economic Impact

The proposed rule changes have no measurable fiscal and economic impact due to the small, affected area and negligible costs of burning versus alternative methods of disposal during a short time period.

Statement of Cost of Compliance

State agencies

LRAPA does not expect that the proposed outdoor burning rule changes will impose any direct fiscal or economic impact on any state or federal agency.

Local governments

LRAPA does not expect that the proposed outdoor burning rule changes will impose any direct fiscal or economic impact on any local government including the City of Lowell.

Public

The proposed rule changes will likely add negligible cost to a member of the public within the Lowell City Limits during the brief time reflected in these changes and the negligible difference in cost of burning versus alternative disposal methods.

Large businesses - businesses with more than 50 employees

Small businesses – businesses with 50 or fewer employees

ORS 183.336 - Cost of Compliance for Small Businesses

1. Estimated number of small businesses and types of businesses and industries with small businesses subject to proposed rule.

The proposed rulemaking affects no known small businesses.

2. Projected reporting, recordkeeping and other administrative activities, including costs of professional services, required for small businesses to comply with the proposed rule.

The proposal only negligibly affects small businesses, therefore, no additional activities apply to small businesses.

3. Projected equipment, supplies, labor and increased administration required for small businesses to comply with the proposed rule.

The proposal only negligibly affects small businesses, therefore, no additional activities apply to small businesses.

4. Describe how DEQ involved small businesses in developing this proposed rule.

LRAPA presented to their standing advisory committee (that includes small business representatives) the proposed rule changes.

Documents relied on for fiscal and economic impact

Document title	Document location
Code of Federal Regulations	http://www.gpo.gov/fdsys/browse/collectionCfr.action?collectionCode=CFR
Federal Register	http://www.gpo.gov/fdsys/browse/collection.action?collectionCode=FR
Oregon Administrative Rules	https://www.oregon.gov/deq/Regulations/Pages/statuses.aspx

Advisory committee fiscal review

LRAPA’s standing Citizens Advisory Committee was provided on-going updates of the rulemaking progress and provided guidance to staff during the entire process.

Housing cost

As ORS 183.534 requires, DEQ evaluated whether the proposed rules would have an effect on the development cost of a 6,000-square-foot parcel and construction of a 1,200-square-foot detached, single-family dwelling on that parcel.

LRAPA determined the proposed rules would have no effect on the development costs because the affected area is minimal and the costs of burning verses alternative methods of disposal would be negligible.

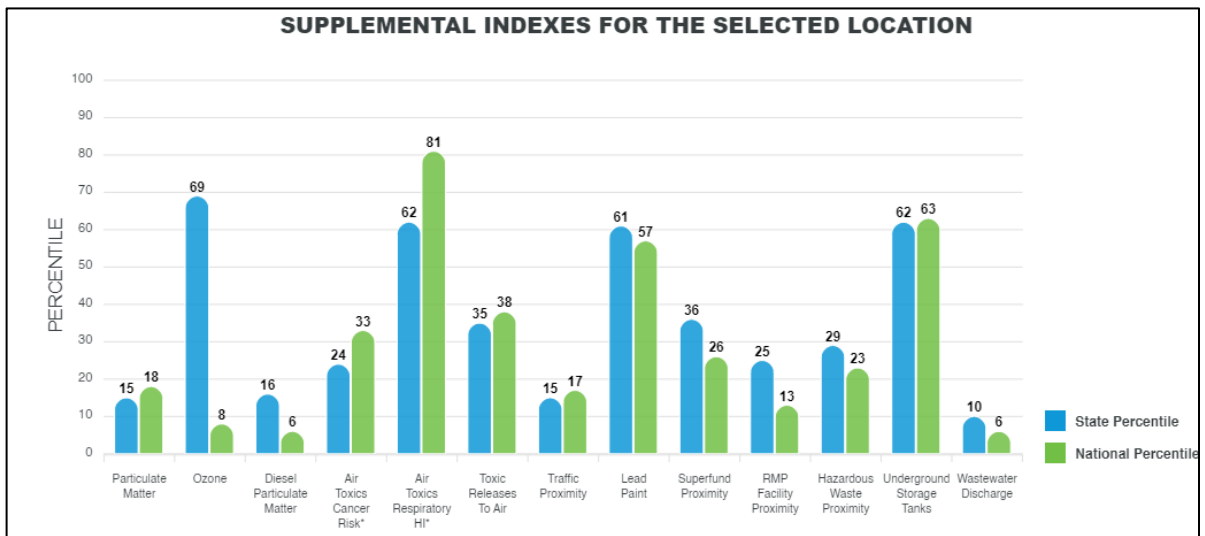
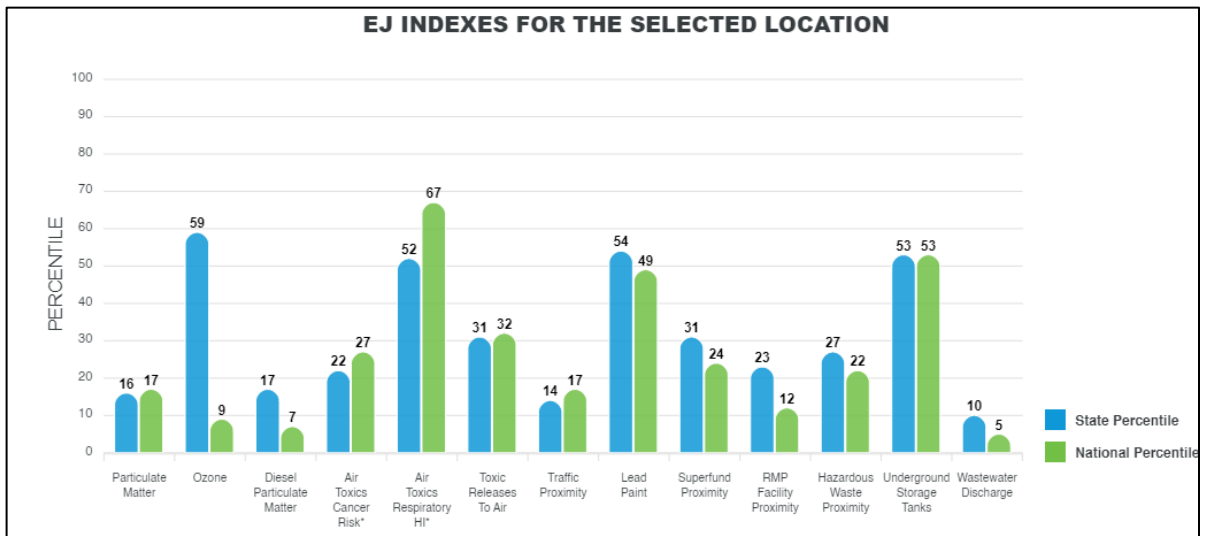
Racial Equity

The adoption of this rule will not affect racial equity in this area of the state.

Environmental Justice Considerations

Environmental Justice analysis

Environmental justice is the fair treatment and meaningful involvement of all people regardless of race, color, national origin, culture, education or income with respect to the development, implementation and enforcement of environmental laws, regulations and policies. DEQ is committed to incorporating environmental justice best practices into its programs and decision-making, to ensure all people in Oregon have equitable environmental and public health protections.



LRAPA evaluated the proposed changes to the outdoor burning rules through an environmental justice lens to ensure fairness and meaningful involvement for all people regardless of race, color, national origin, income, or ability.

The proposed changes to allow additional outdoor burning of woody yard trimmings in Lowell during winter months have the potential to increase particulate matter emissions that could disproportionately affect vulnerable populations. However, according to EPA's EJSCREEN tool, Lowell ranks in the 16th percentile statewide and 17th percentile nationwide for particulate matter pollution. Supplemental EJScreen indexes also show Lowell ranking in the 15th percentile statewide and 18th percentile nationwide for particulate matter. These indicators support that rule change is unlikely to have disproportional impacts on the vulnerable populations in the region. Despite the relatively lower percentile rankings indicating lesser pollution levels, the importance of continuous monitoring and public education cannot be overstated to prevent potential environmental justice issues. LRAPA is prepared to individually engage residents conducting outdoor burning and provide education on proper outdoor burning practices to minimize smoke impacts in response to air quality complaints received by the Agency. LRAPA maintains materials on outdoor burning rules and proper outdoor burning practices in both English and Spanish, as census data shows Hispanic/Latino persons comprise over 15% of Lowell's population.

LRAPA will continue to monitor air quality in the regional airshed using existing regulatory monitors in Springfield as well as a low-cost sensor installed at the school to track any increases in PM_{2.5} levels during the allowed winter burning period. If concerning trends emerge, LRAPA will re-evaluate the expanded burning allowances to ensure protection of public health for all Lowell residents.

LRAPA aims to achieve meaningful public involvement by providing interpretation services for the public hearing as needed and accepting comments in languages other than English. The agency is committed to assessing and addressing any unintended consequences of this rule change to achieve environmental justice.

Federal relationship

The proposed rules add requirements additional to those in federal requirements. There are no federal rules applicable to outdoor burning. LRAPA's outdoor burning rules are an element of the State Implementation Plan that is federally approved and enforceable strategy outlining how Oregon will meet federal air quality standards to protect public health and the environment.

What alternatives did DEQ consider if any?

The rulemaking effects such a small area and decreases allowable burning promoting alternative disposal methods which LRAPA supports, and consideration was made to reach out to more areas of the county however the timeliness of this issue prevented that outreach.

Land use

In adopting new or amended rules, ORS 197.180 and OAR 340-018-0070 require DEQ to determine whether the proposed rules significantly affect land use. If so, DEQ must explain how the proposed rules comply with statewide land-use planning goals and local acknowledged comprehensive plans.

Under OAR 660-030-0005 and OAR 340 Division 18, DEQ considers that rules affect land use if:

- The statewide land use planning goals specifically refer to the rule or program, or
- The rule or program is reasonably expected to have significant effects on:
- Resources, objects, or areas identified in the statewide planning goals, or
- Present or future land uses identified in acknowledge comprehensive plans

DEQ determined whether the proposed rules involve programs or actions that affect land use by reviewing its Statewide Agency Coordination plan. The plan describes the programs that DEQ determined significantly affect land use. DEQ considers that its programs specifically relate to the following statewide goals:

Goal	Title
5	Natural Resources, Scenic and Historic Areas, and Open Spaces
6	Air, Water and Land Resources Quality
11	Public Facilities and Services
16	Estuarine Resources
19	Ocean Resources

Statewide goals also specifically reference the following DEQ programs:

- Nonpoint source discharge water quality program – Goal 16
- Water quality and sewage disposal systems – Goal 16
- Water quality permits and oil spill regulations – Goal 19

NAAQS considerations

The consideration of the NAAQS is important ahead of proposing the amendment to LRAPA's rules in Title 47 - Outdoor Burning. The points following delve into various aspects of how this amendment aligns with NAAQS and other regulatory frameworks. LRAPA's established curtailment program, daily burning advisory, collaborative efforts with local fire protection agencies, and the stringent permit process collectively depict a structured approach towards mitigating air pollution from outdoor burning, especially during unfavorable conditions. These multi-faceted considerations fortify the rationale for the proposed amendment, indicating a comprehensive strategy for maintaining air quality

standards while accommodating controlled outdoor burning during the winter months in Lowell.

1. Established Curtailment Program:

LRAPA's established daily burning advisory and curtailment program stands as a robust mechanism that meticulously restricts outdoor burning during unfavorable ventilation conditions. This program is well-anchored on leveraging air quality forecasting and meteorological data to pinpoint when conditions may precipitate air quality degradation from outdoor burning. The strategic utilization of data empowers the program to foresee and mitigate potential air quality issues, showcasing its robustness. Despite the proposed amendment to allow outdoor burning during winter months, the curtailment program remains a steadfast approach to preventing air pollution on days with adverse meteorological conditions that could amplify pollution from additional winter burning.

A testament to the program's robustness is the dedicated enforcement arm, consisting of two Full-Time Equivalents (FTEs) whose responsibilities encompass responding to air quality complaints submitted to LRAPA, including those pertaining to outdoor burning. Their vigilant enforcement and response to complaints underscore LRAPA's commitment to maintaining a tight rein on outdoor burning activities, ensuring they remain within the defined regulatory framework. This structured enforcement, coupled with the daily advisories, fortifies the curtailment program, ensuring it continues to serve as a reliable bulwark against potential air quality degradation, even with the proposed amendment in effect.

2. Daily Burning Advisory:

The advisory, released daily at 7:00 p.m., educates residents about the prevailing burning conditions and necessitates their adherence to local fire district's burning requisites. It stipulates that residents may only burn woody yard debris generated on their property, ensuring control over the materials being burnt and limiting the potential for prohibited materials being introduced into the burn.

3. Air Quality and Fire Season Restrictions:

The cooperation between LRAPA and the Lane County Fire Defense Board, as well as the Oregon Department of Forestry (ODF) local fire protection agencies in issuing temporary burn restrictions during different seasons further exemplifies the concerted effort to maintain air quality. LRAPA's air quality restrictions are proactive, curbing residential outdoor burning when stagnant air and poor ventilation conditions prevail. Additionally, fire hazard restrictions by local fire agencies, although primarily aimed at fire prevention, also contribute to controlling outdoor burning, especially during summer and early fall, when fire risks are high.

4. Types of LRAPA Permitted Outdoor Burns:

The stringent permit process for outdoor burning under LRAPA's jurisdiction ensures that only controlled, approved burns occur, minimizing unauthorized or hazardous burning practices. This approach, coupled with the categorization of burns and the explicit listing of prohibited materials in 47-015(1)(e), further reiterates LRAPA's dedication to controlling substances that contribute to air pollution.

Conclusion

Based on the reasons described above, LRAPA believes allowing outdoor burning of woody yard trimmings in Lowell during winter months, while continuing to implement its curtailment program and other protective measures, will not interfere with attainment or maintenance of any NAAQS or with other applicable Clean Air Act requirements.

Determination

LRAPA with help of DEQ determined that these proposed rules do not affect land use under OAR 340-018-0030 or DEQ's State Agency Coordination Program.

EQC Prior Involvement

LRAPA staff did not present additional information specific to this proposed rule revision.

Advisory Committee

Background

LRAPA has a standing Citizens Advisory Committee (CAC) that meets most months, LRAPA consulted the CAC for this rulemaking and presented an overview of the changes to the committee at their meeting on July 25, 2023.

Weblink: Public Oversight | Lane Regional Air Protection Agency (lrapa.org)
<https://www.lrapa.org/air-quality-protection/about-lrapa/public-oversight/>

The committee members were:

LRAPA Title 47 Outdoor Burning - Citizens Advisory Committee (CAC)	
Name	Representing
Jim Daniels, Chair	Industry
Kelly Wood, Vice-Chair	Industry
Peter Dragovich	Planning
Evelina Davidova-Kamis	Industry
Paul Metzler	General Public
Teresa Roark	Public Health
Jeffery Carman (absent)	Agriculture
Mysti Frost (absent)	General Public
Chris Cline (absent)	Fire Suppression

Meeting notifications

To notify people about the advisory committee's activities, LRAPA:

- Sent a one-time notice to General News & Updates subscribers of our email listserv of meeting content.
- Added advisory committee announcements to LRAPA's calendar of public meetings at [LRAPA Calendar](#)

Committee discussions

Below is an excerpt from the minutes from the July 25, 2023 meeting discussion and motion from the CAC regarding this proposed rulemaking.

V. Rulemaking – Title 47 Review

Steve Dietrich, Director, stated that the City of Lowell had revised their code to allow for residential outdoor burning from October 1 through June 15. He explained that change now conflicted with Title 47 and referred to the handout provided that outlined the revision. Dietrich asked if committee members had an opportunity to review the revision and all responded that they had. Brief discussion followed.

MOTION: Paul Metzler moved and Peter Dragovich seconded the motion to support the proposed revision to Title 47 to allow for residential outdoor burning from October 1 through June 15 in the City of Lowell and recommended that it be forward to the Board of Directors as written. The motion passed 5-0.

Public Engagement

Public notice

LRAPA provided notice of the proposed rulemaking and rulemaking hearing by:

- On November 17, 2023 Filing notice with the Oregon Secretary of State for publication in the December Oregon Bulletin;
- Notifying the EPA by E-mail;
- Emailing: Send email to list of those who subscribe to our Public Notices category on our email listserv <https://www.lrapa.org/air-quality-protection/public-calendar/sign-up-for-updates/>
- Posting on the LRAPA event calendar: [LRAPA Calendar](#)

How to comment on this rulemaking proposal

LRAPA is asking for public comment on the proposed rules. Anyone can submit comments and questions about this rulemaking. A person can submit comments through an online web page, by regular mail or at the public hearing.

Comment deadline

LRAPA will only consider comments on the proposed rules that LRAPA staff receives by 5:00 p.m., on March 14, 2024 in writing and oral comment will be received at the public hearing on March 14, 2024 at 12:30 p.m., written comments can be emailed to rules@lrapa.org

Submit comment email

Any person can submit a written comment to this email: rules@lrapa.org

Note for public university students:

ORS 192.345(29) allows Oregon public university and OHSU students to protect their university email addresses from disclosure under Oregon's public records law. If you are an

Oregon public university or OHSU student you may omit your email address when you complete the online form to submit a comment.

By mail

Lane Regional Air Protection Agency (LRAPA)
Attn: Travis Knudsen
1010 Main Street
Springfield, OR 97477

At hearing

March 14, 2024 at 12:30 P.M.

Public Hearing

LRAPA plans to hold one public hearing.

The public hearing is online and by teleconference only.

Anyone can attend a hearing by webinar or teleconference.

Date: March 14, 2024
Start time: 12:30PM
Street address: 1010 Main Street
Room: Large LRAPA Conference Room
City: Springfield, Oregon 97477
Teleconference phone number: +1 253 215 8782
Webinar link: <https://us02web.zoom.us/j/82551664224>

LRAPA will consider all comments and testimony received before the closing of the public hearing. LRAPA will summarize all comments and respond to comments in the Environmental Quality Commission staff report.

Accessibility Information

It is the policy of LRAPA to not discriminate on the basis of race, color, national origin, age, sex, disability, sexual orientation, or marital status in administration of its programs or activities, and, LRAPA does not intimidate or retaliate against any individual or group because they have exercised rights protected by 40 C.F.R Parts 5 and 7 or for the purpose of interfering with such rights.

LRAPA is responsible for coordination of compliance efforts and receipt of inquiries concerning non-discrimination requirements implanted by 40 C.F.R. Parts 5 and 7 (Non-discrimination in Programs or Activities Receiving Federal Assistance from the Environmental Protection Agency), including Title VI of the Civil Rights Act of 1964, as amended; Section 504 of the Rehabilitation Act of 1973, the Age Discrimination Act of 1975, Title IX of the Education Amendments of 1973, and Section 13 of the Federal Water Pollution Control Act Amendments of 1972 (hereinafter referred to collectively as the federal non-discrimination statutes).

LRAPA is committed to providing meaningful opportunities for public involvement in its proceedings. LRAPA strives to ensure that information and services are accessible to everyone, regardless of race, color, national origin, income, disability, or language proficiency. If assistance is needed accessing this document or participating in the public processes, please contact LRAPA Non-Discrimination Coordinator at (541) 736-1056 or info@lrapa.org. Language interpretation, translation, alternative formats, or other reasonable accommodations are available upon request. Please allow at least 5 business days to respond to a request. More information is available on LRAPA's [nondiscrimination policy](#).

Supporting documents

Attachment A – Proposed revisions to LRAPA Title 47 Outdoor Burning Rules (redline version).

Attachment B – Crosswalk summary of proposed revisions to LRAPA Outdoor Burning Rules.

Draft Rules – Edits Highlighted

~~g. (g) Outdoor burning within Lowell city limits and surrounding Lowell urban growth boundary is prohibited November through February except that burning of woody yard trimmings is allowed on approved burn days from March 1 through May 31 and October 1 through October 31.~~

g. Outdoor burning is prohibited within the Coburg, Cottage Grove, Creswell, Dunes City, Junction City, Lowell, Veneta, and Westfir city limits except for the outdoor burning of woody yard trimmings on approved burn days from October 1 through June 15.

NOTE: Minor, non-substantive format changes are applied throughout the title.

Draft Rules – Edits Included

- h. Outdoor burning is prohibited within the Coburg, Cottage Grove, Creswell, Dunes City, Junction City, Lowell, Veneta, and Westfir city limits except for the outdoor burning of woody yard trimmings on approved burn days from October 1 through June 15.



Oregon Department of Environmental Quality

Demonstration of Noninterference PM NAAQS Under Section 110(I) of the Clean Air Act (CAA) for Proposed Revision to Allow Outdoor Burning of Woody Yard Trimmings in Lowell, Oregon During Winter Months

LRAPA Title 47 Open Burning Rulemaking

January 2024

Introduction

The City of Lowell and the Lane Regional Air Protection Agency (LRAPA) are proposing a revision to LRAPA's rules in Title 47 - Outdoor Burning, to allow outdoor burning of woody yard trimmings in Lowell during the winter months of November through February, and to extend the spring burning season through June 15th. Currently, such burning is prohibited in Lowell during those months. This prohibition was initially put in place to meet the desire of the City of Lowell. However, this has created confusion and tension due to adjacent properties outside Lowell where wintertime outdoor burning is permitted on LRAPA approved burning days. LRAPA believes this proposed revision will not interfere with attainment or maintenance of the National Ambient Air Quality Standards (NAAQS) or with other applicable CAA requirements. Trend analyses, presented below, demonstrate stable or improving PM levels in recent years, indicating capacity exists to accommodate the small increases in emissions expected from the additional outdoor burning.

Proposed Title 47 rule change

LRAPA is proposing revisions to two sections under Title 47 - Outdoor Burning, specifically Section 47-015(2) Residential Outdoor Burning Requirements, which currently prohibit outdoor burning of woody yard trimmings within Lowell city limits during winter months.

<p>(g) (g) Outdoor burning within Lowell city limits and surrounding Lowell urban growth boundary is prohibited November through February except that burning of woody yard trimmings is allowed on approved burn days from March 1 through May 31 and October 1 through October 31.</p>
<p>(h)(g) Outdoor burning is prohibited within the Coburg, Cottage Grove, Creswell, Dunes City, Junction City, <u>Lowell</u>, Veneta, and Westfir city limits except for the outdoor burning of woody yard trimmings on approved burn days from October 1 through June 15.</p>

Figure 1: Proposed Amendments to LRAPA Title 47 - Outdoor Burning Regulations

These rule changes will enable residents within Lowell city limits to conduct outdoor burning of woody yard trimmings during winter months under the same regulations as residents in surrounding areas within LRAPA's jurisdiction.

The revisions may result in increases in PM emissions due to additional days of allowable burning. However, the quantity of emission increases as well as LRAPA's sustained efforts to prohibit outdoor burning on stagnant days ensure continued attainment of PM NAAQS, which is described in greater detail in the following sections.

Monitoring against the NAAQS

LRAPA's monitoring network meets the minimum requirements set out in 40 CFR Part 58 for the Eugene-Springfield metropolitan statistical area (MSA), which includes Lowell. Regulatory monitors in Eugene, Oakridge, and Cottage Grove adequately represent ambient PM_{2.5} concentrations for the entire MSA. Regulatory monitors in Eugene and Oakridge meet the network design criteria for monitoring PM₁₀. Historical data shows that the PM_{2.5} standard would be violated before the levels began to approach the PM₁₀ standard. An analysis of the air monitoring data underscores the effectiveness of LRAPA's existing programs and measures, providing a compelling foundation for the proposed amendment to Title 47 - Outdoor Burning.

While there are no direct federal reference method (FRM) monitors located in Lowell, surrounding regulatory monitors provide coverage of the broader airshed including Lowell. The Eugene air monitoring site is located roughly 15 miles northwest of Lowell, Cottage Grove is 15 miles southwest, and Oakridge is 20 miles southeast. Lowell falls within the same CBSA and maintenance area designation for particulate matter as Eugene and Springfield. This arrangement is deemed adequate, as outlined in 40 CFR Part 58 for the Eugene-Springfield MSA.

For localized monitoring specifically in Lowell, a low-cost consumer grade PurpleAir sensor installed at Lowell's Junior Senior High School provides community-level PM_{2.5} data. Analysis of winter data from this sensor corroborates regional monitors and shows no significant concerns regarding NAAQS thresholds in Lowell during the months of proposed increased burning.

The analysis of the gathered data illuminates three pivotal aspects that substantiate the feasibility of the proposed amendment to Title 47 - Outdoor Burning:

1. Maintenance of NAAQS Compliance for PM_{2.5} from the Eugene 99, Cottage Grove, and Oakridge nephelometers:
The continuous monitoring conducted at these locations affirms the maintenance of NAAQS compliance for PM_{2.5} levels. The data extracted from these locations serve as a reliable indicator of the broader air quality dynamics, encompassing Lowell.
2. The Lowell Consumer-Grade Sensor Indicates Favorable Conditions:
The utilization of a low-cost consumer-grade Purple Air (PA) Sensor at Lowell's Junior Senior High School offers a closer analysis of PM_{2.5} levels within the community. The data analyzed from this sensor underscores favorable conditions, with no significant concerns regarding approaching NAAQS thresholds, especially during the proposed outdoor burning period in winter.

3. Design Value of Wintertime PM Concentrations Shows Adequate Margin for Additional Emissions in Winter:

An estimated design value, calculated from the Purple Air Sensor data, demonstrates an adequate margin for managing the relatively minor increments in emissions expected from additional burning days in winter. This analysis reaffirms the region's capacity to accommodate the proposed outdoor burning revisions during winter months, without breaching NAAQS thresholds.

4. This multifaceted approach to monitoring, encompassing both standardized and localized data collection methods, fortifies the rationale for the proposed amendment. It reflects a thorough understanding and management of air quality dynamics, ensuring that the proposed changes to outdoor burning regulations during winter months in Lowell align with the overarching goal of maintaining compliance with NAAQS and other applicable Clean Air Act requirements.

Table 1 below shows the maximum PM10 values for Eugene and Oakridge for the past 10 years, with wildfire data excluded. The values show that both Eugene and Oakridge are meeting the current PM10 NAAQS with a very wide margin of safety.

Table 1: Max PM₁₀ Values

Year	E99 Q1 Max ug/m3	E99 Q4 Max ug/m3	OAK Q1 Max ug/m3	OAK Q4 Max ug/m3
2014	31	42	51	29
2015	31	31	37	25
2016	25	21	25	30
2017	56	52	42	55
2018	38	59	36	42
2019	43	46	45	41
2020	34	46	38	40
2021	44	28	30	18
2022	39	46	32	35
2023	44	NA	40	29

Table 2 shows the last 10 years for the Annual PM_{2.5} design values for Lowell (using purple air data), Cottage Grove, Eugene, and Oakridge. These values show that all areas are meeting the current Annual PM_{2.5} NAAQS and would also meet the currently proposed 9-10 ug/m³ NAAQS.

Table 2: Annual DV Excludes WF Data >12 ug/m³

	Lowell*	CGCS	E99	OAK
	PA ug/m ³	FEM ug/m ³	FEM ug/m ³	FEM ug/m ³
2014		7.0	7.3	8.9
2015		7.1	7.7	9.4
2016		6.7	7.0	8.5
2017		6.6	7.0	8.1
2018		6.7	7.1	8.0
2019	3.0	7.2	7.9	8.8
2020	2.5	7.0	7.7	8.4
2021	2.7	6.4	7.0	7.6
2022	2.5	6.4	7.0	7.2
2023	2.6	6.6	7.4	7.5

*estimated from PA sensor data.

Table 3 shows the current daily PM_{2.5} design values, excluding wildfire data, for Lowell, Cottage Grove, Eugene, and Oakridge. All areas are well within the daily PM_{2.5} NAAQS.

Table 3: Daily DV Excludes WF Data >12 ug/m³

	Lowell*	CGCS	E99	OAK
	PA ug/m ³	FEM ug/m ³	FEM ug/m ³	FEM ug/m ³
2014		21	30	40
2015		22	32	37
2016		20	24	31
2017		19	25	29
2018		21	32	29
2019		21	31	34
2020		20	28	31
2021	11	18	23	27
2022	11	18	22	23
2023	10	20	24	22

*estimated from PA sensor data.

Comparing the purple air PM_{2.5} values at Lowell to the below FEM samplers showed that Oakridge had the best correlation to Lowell when including wildfire data.

Table 4: Lowell Purple Air Comparison to FEM, Includes Wildfire Data

	CGCS	E99	OAK
Slope	0.116549	0.114854	0.754707
Int.	5.886705	6.836179	4.984422
Rsq	0.460486	0.420282	0.869767

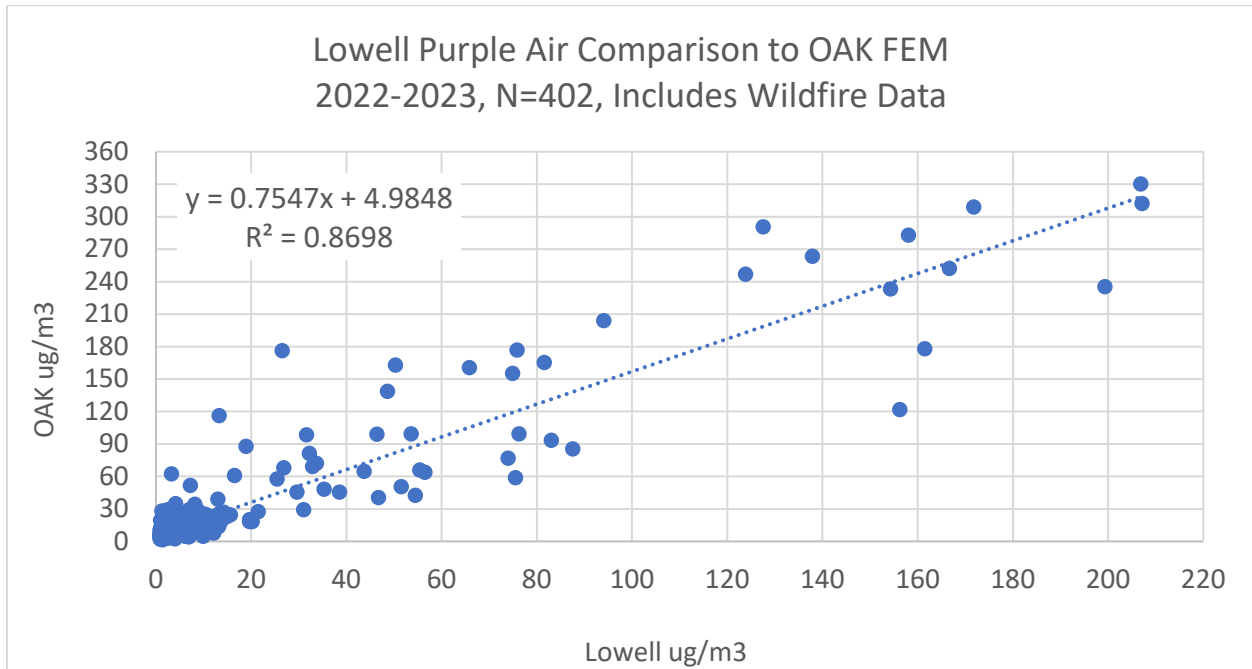


Figure 2: Lowell Purple Air Comparison to OAK FEM, 2022-2023, N=402, Includes Wildfire Data

When excluding wildfire data, the correlation to the sites was not very promising. The values without wildfire were low and did not compare well. However, the low values add to the argument that allowing outdoor burning in Lowell during the winter will not cause PM levels to exceed the NAAQS.

Table 5: Lowell Purple Air Comparison to FEM, Excludes Wildfire Data

	CGCS	E99	OAK
Slope	0.47769	0.602693	0.536944
Int.	3.88153	4.398734	5.445953
Rsq	0.287501	0.306841	0.224595

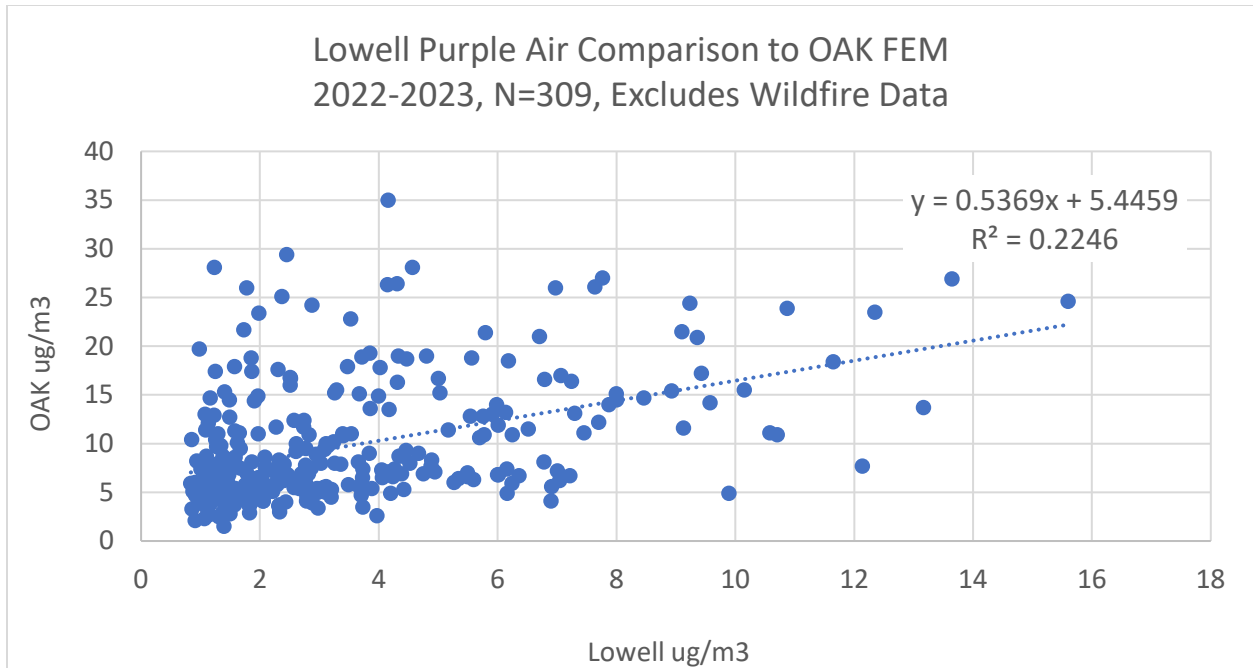


Figure 3: Lowell Purple Air Comparison to OAK FEM 2022-2023, N=309, Excludes Wildfire Data

NAAQS considerations

The consideration of the NAAQS is important ahead of proposing the amendment to LRAPA's rules in Title 47 - Outdoor Burning. This proposed revision to allow increased outdoor burning focuses on demonstrating noninterference specifically with the PM NAAQS. The 24-hour and annual PM_{2.5} standards are most relevant, along with the 24-hour PM₁₀ standard. The EPA's proposed lower annual PM_{2.5} range of 8 to 10 µg/m³ will also be considered; however, the improving PM_{2.5} trend for the Eugene-Springfield MSA, including Lowell, in recent years provides confidence that these levels will continue being met with the relatively minor emissions increases from additional winter biomass burning.

Other criteria pollutants, such as ozone, NO₂, SO₂, CO, and lead, are not expected to be impacted by the small, proposed increase in wood smoke as biomass smoke emissions mainly consist of particulate matter.

LRAPA's established curtailment program, daily burning advisory, collaborative efforts with local fire protection agencies, a stringent permit process, and enforcement measures provide an established framework to mitigate air quality impacts from outdoor burning year-round.

Over the past five years, during the full months of November, December, January, and February, outdoor burning was prohibited for a total of 58 days in unincorporated Lane County due to unfavorable meteorological conditions. Residents of Lowell would be required to refer to this curtailment category before initiating outdoor burns following the approval of this rule change. In the same timeframe, LRAPA has taken only one enforcement action against a resident in Lowell for violating outdoor burning regulations.

These multi-faceted considerations fortify the rationale for the proposed amendment, indicating a comprehensive strategy for maintaining air quality standards while accommodating controlled outdoor burning during the winter months in Lowell.

1. The Oregon Department of Environmental Quality (DEQ) perspective on NAAQS: DEQ recognizes the need for a balanced approach that protects air quality while allowing for responsible outdoor burning practices. DEQ supports the overall efforts by LRAPA to maintain compliance with the National Ambient Air Quality Standards (NAAQS) through the proposed revisions to Title 47 - Outdoor Burning.

At the state level, DEQ implements Oregon Smoke Management Plan rules and requires smoke management plans for larger prescribed burns (OAR Chapter 629, Divisions 48 and 97). These include the Oregon Smoke Management Plan, smoke management rules for agricultural burning, and requirements for smoke management plans for prescribed burning. DEQ reviews and issues permits for larger prescribed burns to ensure they are conducted under favorable weather conditions using emission reduction techniques. During wildfire season, DEQ works closely with partner agencies to monitor air quality impacts and issue health advisories.

LRAPA retains sole authority to enforce local outdoor burning regulations under Title 47 within their jurisdiction. Public outreach on proper burning practices is also advised to minimize smoke impacts on neighbors. With LRAPA's daily curtailment program and stringent permitting process, DEQ concurs that the proposed revisions appear unlikely to interfere with maintenance of the NAAQS in the Lowell area during winter months. DEQ looks forward to continued partnership with LRAPA on protecting Oregon's air quality.

2. Established Curtailment Program:
LRAPA's daily burning advisory and curtailment program serves as an effective safeguard by restricting outdoor burning during unfavorable conditions. The program strategically utilizes meteorological data to foresee days when additional smoke could compound and cause air quality issues. On declared curtailment days, all outdoor burning is prohibited, including pile burning of woody yard trimmings. Residents are required to adhere to daily burn advisories before igniting permissible burns. Despite the proposed increase in allowable winter burning, LRAPA's curtailment notifications will continue mitigating wintertime air quality impacts by preventing uncontrolled smoke during adverse conditions.

Rigorous enforcement also bolsters the curtailment program's efficacy. Two dedicated staff investigate air quality complaints year-round, including issues related to outdoor burning. This oversight and commitment to education and compliance assurance ensures burning remains within acceptable limits.

The curtailment notifications and enforcement capacity provide confidence that the slight PM emissions increase from expanded winter backyard burning in Lowell can be accommodated without significant air quality degradation or interference with NAAQS attainment.

3. Daily Burning Advisory:
LRAPA issues a daily burning advisory at 7:00 PM for outdoor burning during the following calendar day. The advisory informs residents on the expected ventilation conditions. On days when burning is allowed, residents must adhere to the permissible

hours and extinguishment deadlines set in the advisory, as well as any additional requirements stipulated by their fire district permit. The advisory expressly prohibits ignition of new fires once the end time for a given day is reached.

4. Air Quality and Fire Season Restrictions:

The cooperation between LRAPA and the Lane County Fire Defense Board, as well as the Oregon Department of Forestry (ODF) local fire protection agencies in issuing temporary burn restrictions during different seasons further exemplifies the concerted effort to maintain air quality and fire safety. LRAPA's air quality restrictions are proactive, curbing residential outdoor burning when stagnant air and poor ventilation conditions prevail. Additionally, fire hazard restrictions by local fire agencies, although primarily aimed at fire prevention, also contribute to controlling outdoor burning, especially during summer and early fall, when fire risks are high.

5. Types of LRAPA Permitted Outdoor Burns:

The stringent permit process for outdoor burning under LRAPA's jurisdiction ensures that only controlled, approved burns occur, minimizing unauthorized or hazardous burning practices. This approach, coupled with the categorization of burns and the explicit listing of prohibited materials in 47-015(1)(e), further reiterates LRAPA's dedication to controlling substances that contribute to air pollution.

Quantification of Expected PM Emissions Increase

The proposed revisions to allow additional outdoor burning of woody yard trimmings in Lowell during winter months may result in minor increases of particulate matter emissions.

To quantify the magnitude, PM_{2.5} emissions from all residential outdoor burning in Lane County are estimated at 90.06 tons for the 2020 year of emissions data¹. This represents only 0.69% of the 13,012.90 tons of non-wildfire PM_{2.5} emissions county-wide. And just 0.07% of the 129,197.64 tons of total PM_{2.5} emissions county-wide including wildfire smoke contributions.

Lane County's population in 2021 was 383,189. Removing the population from jurisdictions where outdoor burning would remain prohibited during the winter months (i.e. the Cities of Eugene, Springfield, Florence, and Oakridge) is 133,122. Lowell's population of 1,221 comprises 0.91% of the population with the ability to conduct outdoor burning during winter months within Lane County. Ratioing Lowell's population against the estimated emissions from residential outdoor burning in Lane County equates the community's proportional share of residential burning PM_{2.5} to ~0.82 tons per year.

$$\Delta\text{PM}_{2.5} \text{ Emissions} = \left(\frac{\text{Pop. of Lowell}}{\text{County Pop. of wintertime burning}} \right) \times \text{PM}_{2.5} \text{ OB Emissions}$$
$$0.819 \text{ tons} = \left(\frac{1,221 \text{ pop.}}{133,122 \text{ pop.}} \right) \times 90.06 \text{ tons}$$

Even assuming the rule change doubles Lowell's residential outdoor burning emissions, the maximum yearly increase would still be under 2 tons of PM_{2.5}. This negligible emissions increase would not jeopardize the area's continued attainment status for PM_{2.5}. Based on the clear margin between current PM_{2.5} levels and the NAAQS demonstrated through the area's monitoring data, an addition of less than 2 tons per year in Lowell would not threaten to violate the health standards.

An assumption of emissions doubling is made to conservatively bound the maximum potential increase resulting from additional winter burn days. Even if this doubling overstates the actual expected burning activity, the negligible magnitude demonstrates noninterference.

Continuing this assumption that this rule change doubles Lowell's residential outdoor burning emissions, contributing around 1.64 tons per year of PM_{2.5}, the comparison of this increase to Lowell's total PM_{2.5} emissions excluding wildfires provides helpful insight into the protection of the NAAQS. Applying Lowell's 0.91% population proportion to Lane County's 13,012.90 tons of total annual non-wildfire PM_{2.5} generates an estimate of 118.42 tons for Lowell's baseline PM_{2.5} emissions. By applying the same 0.91% proportion to Lane County's overall non-wildfire emissions, we can project Lowell's PM_{2.5} baseline.

The percentage change expected from the rule revision can then be quantified as:

$$\Delta\text{PercentChange} = \left(\frac{\text{Assumed Increase In Emissions}}{\text{Projected NonWildfire Emissions for Lowell}} \right) \times 100$$

1. LRAPA, 2020 NEI emissions inventory data, analyzed December 2023

$$.38\% = \left(\frac{1.64 \text{ tons}}{118.42 \text{ tons}} \right) \times 100$$

Additionally, the potential impact on PM_{2.5} air quality standards can be analyzed through an emissions scaling method. This analysis offers an understanding into whether the increased emissions could push PM_{2.5} levels beyond the NAAQS threshold, which is estimated below.

The combined metrics of percentage change and design value impact provide perspective on the negligible magnitude of emissions and high likelihood of continued PM_{2.5} attainment under the proposed rule revision.

Emissions Scaling Demonstration

As estimated previously, under the assumption that the proposed rule doubles Lowell's winter residential burning emissions, total PM_{2.5} would increase by 1.64 tons per year. Compared to the projected 118.42 tons of baseline non-wildfire emissions, this represents a 1.4% increase from current levels.

The impact of a 1.4% emission rise on PM_{2.5} design values can be modeled by proportionally scaling up Lowell's baseline reading. Excluding wildfire data, Lowell's baseline 24-hour PM_{2.5} design value is 10 µg/m³. Applying the projected emissions increase percentage gives:

$$\text{Scaled annual DV} = \text{Baseline DV} \times \left(1 + \frac{\% \text{ increase}}{100} \right)$$

$$10.14 \text{ } \mu\text{g}/\text{m}^3 = 10 \text{ } \mu\text{g}/\text{m}^3 \times \left(1 + \frac{1.4\%}{100} \right)$$

Therefore, even under hypothetical doubling of residential burning emissions from the proposed revisions, Lowell's design value of 10.14 µg/m³ would remain well under NAAQS thresholds. This emission scaling analysis corroborates expectations of continued attainment despite projected incremental emissions rises.

Emissions Scaling for Potential Annual PM_{2.5} NAAQS Revisions

In addition to the 24-hour standard, EPA is also considering lowering the annual PM_{2.5} threshold to a range of 8-10 µg/m³. Excluding wildfire event days, recent annual design values in Lowell are estimated around 2.6 µg/m³ based on local sensor data.

To evaluate noninterference under a revised annual NAAQS, current Lowell annual design value can be scaled up proportionally using the same emissions increase percentage:

$$\text{Scaled annual DV} = \text{Estimated Lowell Annual DV} \times \left(1 + \frac{\% \text{ increase}}{100} \right)$$

$$10.14 \text{ } \mu\text{g}/\text{m}^3 = 2.6 \text{ } \mu\text{g}/\text{m}^3 \times \left(1 + \frac{1.4\%}{100} \right)$$

The scaled annual DV of 2.64 µg/m³ is well under even the most stringent end of the proposed revised annual NAAQS range. This affirms that the small projected emissions increases would not interfere with attainment of potential lowered annual PM_{2.5} standards.

Conclusion

Based on the reasons described above, LRAPA believes allowing outdoor burning of woody yard trimmings in Lowell during winter months, while continuing to implement its curtailment program and other protective measures, will not interfere with attainment or maintenance of any NAAQS or with other applicable Clean Air Act requirements. Therefore, LRAPA requests that EPA approve this proposed revision to the Oregon State Implementation Plan as meeting the requirements of Section 110(l) of the Clean Air Act.

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