



Oregon Department of Environmental Quality  
June 25, 2018

State of Oregon  
Department of  
Environmental  
Quality

## **Notice of Proposed Rulemaking**

### **Update to Oregon State Implementation Plan for Ozone Standard to Address Infrastructure and Interstate Transport Clean Air Act Requirements**

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## Introduction

DEQ invites public input on a proposed permanent rule amendment to chapter 340 of the Oregon Administrative Rules.

## Background

Oregon must update its Clean Air Act State Implementation Plan to document that the Oregon Department of Environmental Quality has the authority, regulations and enforcement capability to implement the current National Ambient Air Quality Standards for Ozone. This update must also include an assurance that DEQ air quality programs are adequate to prevent ozone transport to neighboring states. The proposed rule amendment will document these two updates to the State Implementation Plan and the associated public review period will allow interested parties to comment on the plan updates.

## DEQ proposal

The changes DEQ proposes to make to OAR 340, division number **0200-0040** will document the effective date of the required State Implementation Plan submittals to EPA.

## More information

Information about this rulemaking is on this rulemaking's web page:

[Ozone 2018 Infrastructure and Interstate Transport SIP Submissions Rulemaking Page](#)

## Public hearings

DEQ will hold one public hearing.

### Meeting Details:

Date: Thursday, July 26, 2018

Time: 6 p.m.

Location: DEQ Headquarters

700 NE Multnomah St., Conference Room 601

Portland, OR 97232-4100

## How to comment on this rulemaking proposal

DEQ is asking for public comment on the proposed rule amendment and the two reports that fulfill Clean Air Act submission requirements. 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**

Comments on the proposed rules must be submitted to DEQ by 4 p.m., on August 3, 2018 to be considered.

## **Submit comments online**

[Ozone 2018 Infrastructure and Interstate Transport SIP Submissions Rulemaking Comment Page](#)

## **Note for public university students:**

ORS 192.501(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**

Oregon DEQ  
Attn: Karen Williams  
700 NE Multnomah St., Room 600  
Portland, OR 97232-4100

## **At hearing**

Date: Thursday, July 26, 2018  
Time: 6 p.m.  
Location: DEQ Headquarters  
700 NE Multnomah St., Conference Room 601  
Portland, OR 97232-4100

You can also participate in the hearing through a teleconference.

Teleconference call-in number: 888-278-0296  
Participant ID: 8040259

How to join the teleconference: [Teleconference instructions](#)

## **Sign up for rulemaking notices**

Get email or text updates about this rulemaking by signing up through this link:

[GovDelivery: Air Quality Maintenance Plans](#);

For more information, visit the rulemaking webpage:

[Ozone 2018 Infrastructure and Interstate Transport SIP Submissions Rulemaking Page](#)

Sign up to get email or text updates about other DEQ rulemaking here: [DEQ Email Notice List](#).

## **What will happen next?**

DEQ will include a written response to comments in a staff report which DEQ will submit to the Oregon Environmental Quality Commission. DEQ may modify the rule proposal based on the comments.

## **Present proposal to the EQC**

Proposed rules only become effective if the Oregon Environmental Quality Commission adopts them. DEQ plans to present the proposed rules to the commission for a decision at its meeting on September 13 and 14, 2018.

## **Accessibility information**

You may review copies of all documents referenced in this announcement at:

Oregon Department of Environmental Quality  
700 NE Multnomah St., Room 600  
Portland, OR, 97232-4100

To schedule a review of all websites and documents referenced in this announcement, call Karen Williams, Portland, at 503-229-5519 (800-452-4011, ext. 5622 toll-free in Oregon).

Please notify DEQ of any special physical or language accommodations or if you need information in large print, Braille or another format. To make these arrangements, contact DEQ, Portland, at 503-229-5696 or call toll-free in Oregon at 1-800-452-4011, ext. 5696; fax to 503-229-6762; or email to [deqinfo@deq.state.or.us](mailto:deqinfo@deq.state.or.us). Hearing impaired persons may call 711.

## Overview

### Short summary

Oregon must update its Clean Air Act State Implementation Plan to document that DEQ has the authority, regulations and enforcement capability to implement the current National Ambient Air Quality Standards for Ozone. This update must also include an assurance that DEQ air quality programs are adequate to prevent ozone transport to neighboring states. The proposed rule amendment will document these two updates to the State Implementation Plan and the associated public review period will allow interested parties to comment on the plan updates. After the public comment period and response to comments, DEQ will recommend that the Environmental Quality Commission approve the rule amendment. With EQC approval, DEQ would submit the required plan updates to the U.S. Environmental Protection Agency.

The proposal includes the following actions:

- Approve Attachment 1 to this proposal, titled “Infrastructure SIP Submittal for Purposes of Clean Air Act Sections 110(a)(1) and (2) for the 2015 Ozone NAAQS. Attachment 1 is a “crosswalk” that identifies Oregon Administrative Rules and Oregon Revised Statutes that demonstrate DEQ has the necessary authorities in place to implement the requirements of Clean Air Act Sections 110(a)(1) and (2) with respect to the 2015 Ozone standard.
- Approve Attachment 2 to this proposal, titled “Oregon State Implementation Plan Submittal Addressing the Interstate Transport of Ozone (O<sub>3</sub>).
- Amend Oregon Administrative Rule 340-200-0040 to update the most recent date of an Oregon State Implementation Plan update. With EQC adoption of the amendment, the actions proposed in this rulemaking will be incorporated into and made part of the Oregon SIP.

### Brief history

The federal Clean Air Act (42 U.S.C §7410) requires state and local air pollution control agencies to adopt strategies to minimize air pollution. The collection of these regulations is called the State Implementation Plan. A SIP must demonstrate that a state has the adequate administrative programs and enforceable emission controls in place to maintain compliance with National Ambient Air Quality Standards, or NAAQS. EPA sets NAAQS for six pollutants that are widespread, come from various sources, and are known to harm public health and the environment. Those six federally regulated pollutants are: ozone, lead, sulfur dioxide, nitrogen dioxide, carbon monoxide, and particulate matter.

When EPA issues new or revised NAAQS, EPA and states have the following responsibilities:

- Within two years of revising the NAAQS for a criteria pollutant, EPA is required to designate areas as meeting (attainment areas) or not meeting (nonattainment areas) the

standard. Designations are based on the most recent set of air monitoring data. (See CAA Section 107(d)(1)(B); 42 U.S.C. § 7407(d)(1)(B).)

- Within three years, states are required to submit SIP updates that show adequate regulatory and administrative infrastructure to meet the new standard. (See CAA Section 110(a)(1); 42 U.S.C. §7410(a)(1)). Infrastructure SIP submittals must include the basic program requirements for managing air quality required in Section 110(a)(2) of the CAA. Those required elements are listed in Table 1.
- Within three years of area designations, states are required to submit nonattainment area SIPs to EPA for any criteria pollutant for which the standard is not met. Each nonattainment area SIP must outline the strategies and emissions control measures that show how the area will improve air quality and meet the national ambient air quality standards. (See CAA Section 172; 42 U.S.C. § 7502.)

In 2015, EPA revised the primary and secondary ozone standard from 75 parts per billion to 70 ppb. DEQ adopted the 2015 ozone NAAQS and submitted that revision to EPA with a Regional Haze Progress Report in July 2017. EPA approved that SIP submission, among other submissions, on May 24, 2018 (83 FR 24034). On April 30, 2018, EPA designated all of Oregon as “attainment/unclassifiable” for ozone based on DEQ’s annually submitted monitoring data (82 FR 54232 and 83 FR 25776).

DEQ conducts ambient air quality monitoring as the Code of Federal Regulations requires (40 C.F.R. section 58.10). This rule requires state and local air quality agencies to develop and submit an annual ambient air quality monitoring network plan to EPA by July 1 of each year. The DEQ ambient air quality monitoring network is designed in response to CFR regulations, EPA’s National Monitoring Strategy, state and local needs, requirements of air quality maintenance plans and SIPs for non-attainment areas. Appendix D to 40 CFR Part 58 lists the following monitoring objectives state networks must be designed to meet:

- Provide air pollution data to the general public in a timely manner.
- Support compliance with ambient air quality standards and emissions strategy development.
- Support air pollution research studies.

To meet these objectives, collectively, monitoring sites must be capable of providing broad information, including:

- Highest concentrations expected to occur in the area covered by the network;
- Typical concentrations in areas of high population density;
- The impact of significant sources or source categories on air quality;
- General background concentration levels;
- Extent of regional pollutant transport among populated areas and in support of secondary standards; and
- Pollution impacts on visibility, vegetation damage, or other welfare-based impacts.

DEQ and the Lane Regional Air Pollution Agency currently monitor ozone concentrations at 11 locations statewide. There are four monitors in the Portland metropolitan area, two in Salem, two in Eugene-Springfield, one in Medford-Ashland, one in Hermiston and one in The Dalles. DEQ's most recent report to EPA summarizes monitoring data through 2016 and shows Oregon in compliance with the ozone standard. Figure 1, excerpted from the Oregon Air Quality Annual Report, illustrates Oregon's ozone compliance.

**Table 1**  
**Required Clean Air Act Infrastructure Elements**

Section 110(a)(2)(A)	Emission limits and other control measures
Section 110(a)(2)(B)	Ambient air quality monitoring/data system
Section 110(a)(2)(C)	Program for enforcement of control measures
Section 110(a)(2)(D)(i)	I Prong 1: Interstate transport - significant contribution
Section 110(a)(2)(D)(i)	I Prong 2: Interstate transport - interfere with maintenance
Section 110(a)(2)(D)(i)	II Prong 3: Interstate transport - prevention of significant deterioration
Section 110(a)(2)(D)(i)	II Prong 4: Interstate transport - protect visibility
Section 110(a)(2)(D)(ii)	Interstate and international pollution abatement
Section 110(a)(2)(E)	Adequate authority and resources
Section 110(a)(2)(F)	Stationary source monitoring system
Section 110(a)(2)(G)	Emergency power
Section 110(a)(2)(H)	Future SIP revisions Section 110(a)(2)(J) Consultation with government officials; Public notification; PSD and visibility protection
Section 110(a)(2)(K)	Air quality modeling/data Section 110(a)(2)(L) Permitting fees
Section 110(a)(2)(M)	Consultation/participation by affected local entities

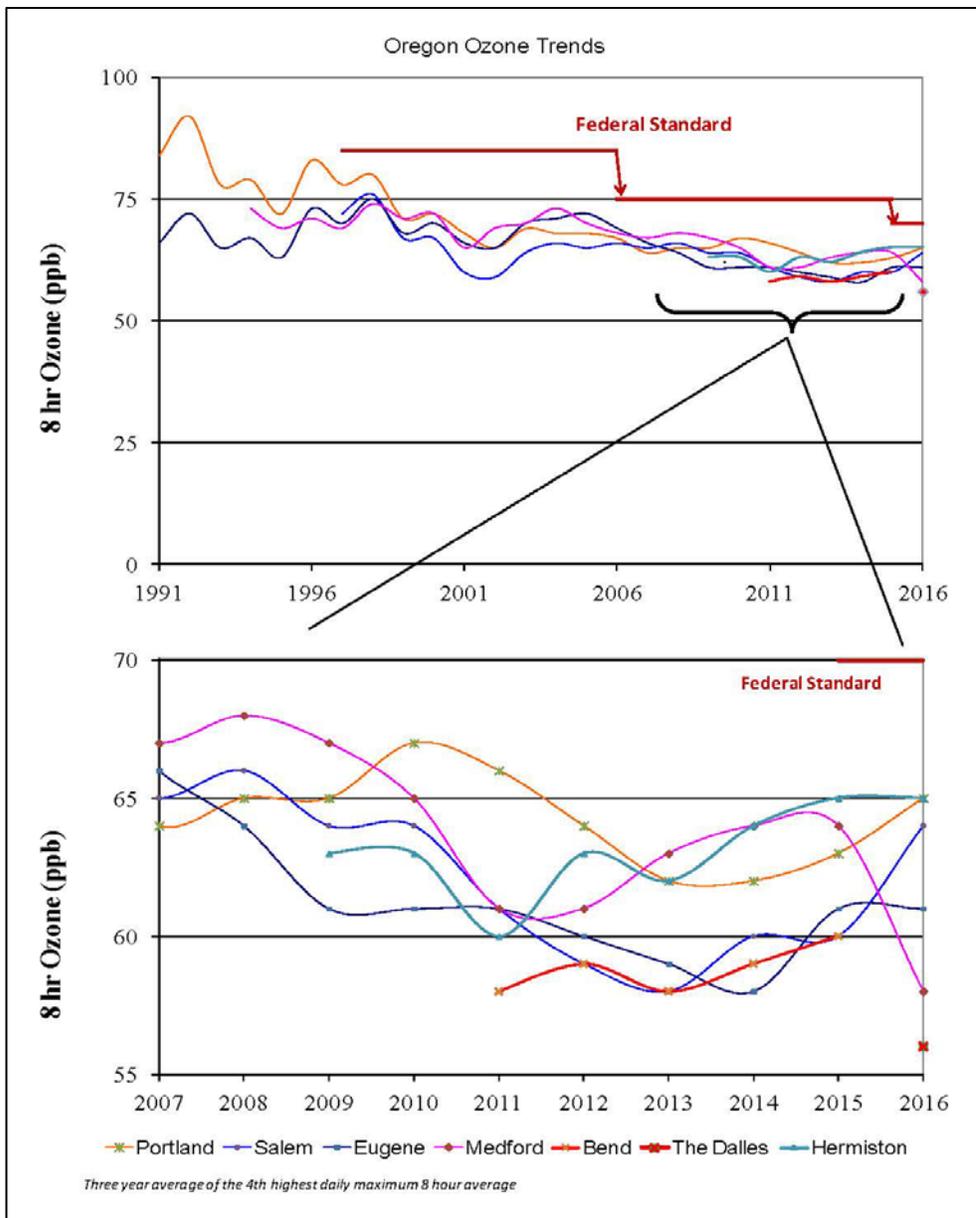


Figure 1: Ozone trends in Oregon through 2016. From Oregon Air Quality Annual Report 2016. <https://www.oregon.gov/deq/FilterDocs/OrAirQualityAnnualReport2016.pdf>

## Regulated parties

The proposed rule amendment would document the most recent update to the Oregon SIP, which is a submission of SIP elements required by Section 110(a) of the CAA. This update to Oregon’s SIP does not add or remove any parties regulated by DEQ.

## Request for other options

DEQ must adopt the proposed rule amendment to allow DEQ’s submission of SIP updates to EPA required by EPA’s revision of the ozone NAAQS. The proposed rule amendments

update the ozone infrastructure and interstate transport elements of the SIP. Because DEQ must submit these SIP updates, DEQ is not requesting input for other options.

### **Infrastructure SIP: Other documentation**

**Crosswalk:** In addition to the rule amendment described above, DEQ is submitting what is referred to as a “crosswalk” for EQC approval and submittal to EPA (Attachment 1). DEQ developed the crosswalk in collaboration with EPA Region 10 as an informal guide to show how essential DEQ rules address required infrastructure SIP elements of CAA Section 110(a)(2)(A) - 110(a)(2)(M). The crosswalk is included with this proposal for EQC approval and submittal to EPA to demonstrate that the Oregon SIP meets the infrastructure requirements to implement, maintain and enforce the ozone NAAQS, but the crosswalk is not considered part of the official record of Oregon’s SIP. The official record of Oregon Administrative Rules that constitute the federally-approved Oregon SIP is listed in subpart MM of 40 C.F.R, part 52.

**Interstate Transport:** The interstate transport provision in the CAA, section 110(a)(2)(D)(i), (also called “the good neighbor” provision) requires each state to demonstrate that the state’s pollution control strategies are adequate to prevent emissions from contributing significantly to downwind states having problems attaining or maintaining national air quality standards. Attachment 2 to this proposal is DEQ’s required interstate transport submission pertinent to the 2015 ozone NAAQS.

## Statement of need

### **What need would the proposed rule address?**

The Clean Air Act requires that within three years of a NAAQS revision, a state must demonstrate that its air quality program provides the means to implement, maintain and enforce the new standard, as well as prevent significant interstate transport of emissions. In 2015, EPA revised the primary and secondary ozone NAAQS to 70 parts per billion and Oregon must update the infrastructure and interstate transport elements of the State Implementation Plan by October 1, 2018. This proposed rule would document Oregon DEQ's completion of the required infrastructure and interstate transport submittals as part of Oregon SIP.

### **How will DEQ know the rule addressed the need?**

EPA's approval of DEQ's infrastructure and interstate transport SIP submittals and publication in the Federal Register will indicate that the rule has met the need.

## Rules affected, authorities, supporting documents

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**Lead division**

Air Quality

**Program or activity**

Air Planning

**Chapter 340 action**

Amend: OAR 340-200-0040

**Statutory authority - ORS**

468.020            468.065

**Statute implemented - ORS**

468A

## Documents relied on for rulemaking

Document title	Document location
Guidance on Infrastructure State Implementation Plan Elements under Clean Air Act Sections 110(a)(1) and 110(a)(2) (September 2013)	<a href="https://www3.epa.gov/airquality/urbanair/sipstatus/docs/Guidance_on_Infrastructure_SIP_Elements_Multipollutant_FINAL_Sept_2013.pdf">https://www3.epa.gov/airquality/urbanair/sipstatus/docs/Guidance_on_Infrastructure_SIP_Elements_Multipollutant_FINAL_Sept_2013.pdf</a>
EPA Notice of Data Availability – Preliminary Interstate Ozone Transport Modeling Data for the 2015 Ozone NAAQS (January 2017)	<a href="https://www.epa.gov/airmarkets/notice-data-availability-preliminary-interstate-ozone-transport-modeling-data-2015-ozone">https://www.epa.gov/airmarkets/notice-data-availability-preliminary-interstate-ozone-transport-modeling-data-2015-ozone</a>
Supplemental Information on the Interstate Transport State Implementation Plan Submissions for the 2008 Ozone National Ambient Air Quality Standards under Clean Air Act Section 110(a)(2)(D)(i)(I) (October, 27, 2017)	<a href="https://www.epa.gov/airmarkets/october-2017-memo-and-supplemental-information-interstate-transport-sips-2008-ozone-naaqs">https://www.epa.gov/airmarkets/october-2017-memo-and-supplemental-information-interstate-transport-sips-2008-ozone-naaqs</a>
Information on the Interstate Transport State Implementation Plan Submissions for the 2015 Ozone National Ambient Air Quality Standards under Clean Air Act Section 110(a)(2)(D)(i)(I) (March 27, 2018)	<a href="https://www.epa.gov/sites/production/files/2018-03/documents/transport_memo_03_27_18_1.pdf">https://www.epa.gov/sites/production/files/2018-03/documents/transport_memo_03_27_18_1.pdf</a>
Oregon Air Quality Annual Report (2016)	<a href="http://www.oregon.gov/deq/FilterDocs/OregonAirQualityAnnualReport2016.pdf">http://www.oregon.gov/deq/FilterDocs/OregonAirQualityAnnualReport2016.pdf</a>
2017 Oregon Annual Ambient Criteria Pollutant Air Monitoring Network plan	Available from DEQ Laboratory and Environmental Assessment Program (503) 693-5700

## Fee Analysis

This rulemaking does not involve fees.

### **Fiscal and Economic Impact**

This proposal would not have a fiscal impact on DEQ beyond the air planning section resources required to draft and submit the infrastructure and interstate transport SIP elements, conduct the required public process, and present the rule adoption recommendation to the EQC.

### **Statement of Cost of Compliance**

#### **State and federal agencies; Local Governments; Public; Large Businesses**

This proposed rule amendment pertains to submitting SIP elements required by the 2015 revision of the ozone standard, not adoption of the standard itself, which occurred in 2017. DEQ is the state agency to bear the cost of compliance in this case because the ozone NAAQS is a federal requirement under the CAA and DEQ is required to implement the standard in Oregon.

In adopting the 2015 ozone NAAQS, the federal government evaluated the potential fiscal impact and that impact has already been imposed at the federal and state levels, as well as on large businesses and the public. Cost of compliance of submitting the two required SIP elements rests with DEQ, rather than federal agencies, the public or large businesses.

#### **Small businesses – businesses with 50 or fewer employees**

DEQ has insufficient information to determine potential costs to small businesses for each of the following aspects. However, DEQ would not expect small businesses to bear any cost of compliance with the CAA requirements satisfied by DEQ's submission of the SIP updates referenced in this proposal.

- a. Estimated number of small businesses and types of businesses and industries with small businesses subject to proposed rule.
- b. Projected reporting, recordkeeping and other administrative activities, including costs of professional services, required for small businesses to comply with the proposed rule.
- c. Projected equipment, supplies, labor and increased administration required for small businesses to comply with the proposed rule.
- d. Describe how DEQ involved small businesses in developing this proposed rule.

DEQ did not involve small businesses in developing the proposed rules because there should be no impact to small business from the proposed rules.

## **Documents relied on for fiscal and economic impact**

No documents were necessary as DEQ does not expect any fiscal impact beyond DEQ resources associated with this proposal.

## **Advisory committee**

DEQ did not appoint an advisory committee for the proposed permanent rule amendments. This rulemaking proposal is necessary to align Oregon Administrative Rules with CAA SIP submittal requirements. The proposed changes are required to demonstrate that Oregon DEQ has the appropriate rules, programs and agreements in place to implement the CAA. As such, there was no policy choice to be made which an advisory committee's input could help inform.

## **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. DEQ determined the proposed rule would have no effect on the development costs because the proposed rule simply documents DEQ's submission of two CAA-required SIP update.

## **Federal Relationship**

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### **Relationship to federal requirements**

ORS 183.332, 468A.327 and OAR 340-011-0029 require DEQ to attempt to adopt rules that correspond with existing equivalent federal laws and rules unless there are reasons not to do so.

The proposed rule is not different from or in addition to federal requirements. The proposed rule amendment simply documents DEQ's completion of CAA-required submittals.

### **What alternatives did DEQ consider if any?**

DEQ must submit the infrastructure and interstate transport SIP elements to EPA. The rule amendment is required to document that submission. DEQ must adopt the rule amendment to implement the 2015 ozone NAAQS and did not consider other options for this proposal.

## Land use

### Land use considerations

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, objectives or areas identified in the statewide planning goals, or
  - Present or future land uses identified in acknowledged comprehensive plans.

To determine whether the proposed rules involve programs or actions that affect land use, DEQ reviewed its Statewide Agency Coordination plan, which describes the DEQ programs that have been determined to significantly affect land use. DEQ considers that its programs specifically relate to the following statewide goals:

<b>Goal #</b>	<b>Title</b>
5	Open Spaces, Scenic and Historic Areas, and Natural Resources
6	Air, Water and Land Resources Quality
9	Ocean Resources
11	Public Facilities and Services
16	Estuarial 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

### Determination

DEQ determined that this proposed rule amendment does not affect land use under OAR 340-018-0030 or DEQ's State Agency Coordination Program.

## **Stakeholder and public involvement**

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### **Advisory committee**

DEQ did not convene an advisory committee because this rulemaking proposal is necessary to align Oregon Administrative Rules with federally revised NAAQS under the CAA. The proposed changes are required to demonstrate that Oregon DEQ has the appropriate rules, programs and agreements in place to implement the CAA. As such, there was no policy choice to be made which an advisory committee's input could help inform

### **EQC prior involvement**

DEQ shares general rulemaking information with the EQC through the Director's Reports. DEQ did not present additional information specific to this proposed rule amendment.

## Public notice and hearings

### Public notice

DEQ took the following steps to provide notice of the proposed rulemaking and rulemaking hearing on July 26, 2018:

- June 25, 2018: Filed notice with the Oregon Secretary of State for publication in the July 2, 2018 *Oregon Bulletin*
- On June 25, 2018: Sent notice by email to EPA
- On June 25, 2018: Post notice on DEQ's webpage: [Ozone 2018 Infrastructure and Interstate Transport SIP Submissions Rulemaking Page](#)
- On June 25, 2018: Mailed notices to approximately 10,442 interested parties on the following DEQ lists through GovDelivery:
  - Rulemaking
  - Air Quality Maintenance Plans
  - DEQ Public Notices
- On June 25, 2018: Sent notice by email to the following key legislators as required under ORS 183.33:
  - State Senator Michael Dembrow, Chair, Senate Committee on Environment and Natural Resources
  - State Representative Ken Helm, Chair, House Committee on Energy and Environment
  - State Representative Brad Witt
  - State Senator Lew Frederick
- On June 25, 2018: Made information about the notice available on DEQ Facebook and Twitter accounts.
- On June 25, 2018: Posted information about the notice on the DEQ event calendar, [DEQ Calendar](#)

### Public hearings

DEQ plans to hold one public hearing. The details are described in the Introduction section of this document. Anyone can attend a hearing in person, or by teleconference.

DEQ will consider all written comments received at the hearings listed below before completing the draft rules. DEQ will summarize all comments and respond to comments in the Oregon Environmental Quality Commission staff report.

Any person can submit comments on the proposed rules as described in the Introduction section of this document.

### Close of public comment period

The comment period will close at 4 p.m. on August 3, 2018.

## **Accessibility Information**

You may review copies of all documents referenced in this announcement at:  
Oregon Department of Environmental Quality  
700 NE Multnomah St., Ste. 600  
Portland, OR, 97232

To schedule a review of all websites and documents referenced in this announcement, call Karen Williams, Air Quality Planning Section, 503-229-5519. (800-452-4011, ext. 5622 toll-free in Oregon).

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## Draft Rules - With Edits Highlighted

### Key to Identifying Changed Text:

~~Deleted Text~~

New/inserted text

~~Text deleted from one location~~ - and moved to another location

## DEPARTMENT OF ENVIRONMENTAL QUALITY

### Division 200

### GENERAL AIR POLLUTION PROCEDURES AND DEFINITIONS

#### 340-200-0040

#### State of Oregon Clean Air Act Implementation Plan

(1) This implementation plan, consisting of Volumes 2 and 3 of the State of Oregon Air Quality Control Program, contains control strategies, rules and standards prepared by DEQ and is adopted as the State Implementation Plan (SIP) of the State of Oregon under the FCAA, 42 U.S.C.A 7401 to 7671q.

(2) Except as provided in section (3), revisions to the SIP will be made under the EQC's rulemaking procedures in OAR 340 division 11 of this chapter and any other requirements contained in the SIP and will be submitted to the EPA for approval. The SIP was last modified by the EQC on ~~March 22, 2018~~ September 13-14, 2018.

(3) Notwithstanding any other requirement contained in the SIP, DEQ may:

(a) Submit to the EPA any permit condition implementing a rule that is part of the federally-approved SIP as a source-specific SIP revision after DEQ has complied with the public hearings provisions of 40 CFR 51.102; and

(b) Approve the standards submitted by LRAPA if LRAPA adopts verbatim, other than non-substantive differences, any standard that the EQC has adopted, and submit the standards to EPA for approval as a SIP revision.

(4) Revisions to the State of Oregon Clean Air Act Implementation Plan become federally enforceable upon approval by the EPA. If any provision of the federally approved State Implementation Plan conflicts with any provision adopted by the EQC, DEQ must enforce the more stringent provision.

**Statutory/Other Authority:** ORS 468.020 & 468A

**Statutes/Other Implemented:** ORS 468A.035 & 468A.135

## Draft Rules – With Edits Incorporated

### Division 200 GENERAL AIR POLLUTION PROCEDURES AND DEFINITIONS

#### 340-200-0040

#### State of Oregon Clean Air Act Implementation Plan

(1) This implementation plan, consisting of Volumes 2 and 3 of the State of Oregon Air Quality Control Program, contains control strategies, rules and standards prepared by DEQ and is adopted as the State Implementation Plan (SIP) of the State of Oregon under the FCAA, 42 U.S.C.A 7401 to 7671q.

(2) Except as provided in section (3), revisions to the SIP will be made under the EQC's rulemaking procedures in OAR 340 division 11 of this chapter and any other requirements contained in the SIP and will be submitted to the EPA for approval. The SIP was last modified by the EQC on September 13-14, 2018.

(3) Notwithstanding any other requirement contained in the SIP, DEQ may:

(a) Submit to the EPA any permit condition implementing a rule that is part of the federally-approved SIP as a source-specific SIP revision after DEQ has complied with the public hearings provisions of 40 CFR 51.102; and

(b) Approve the standards submitted by LRAPA if LRAPA adopts verbatim, other than non-substantive differences, any standard that the EQC has adopted, and submit the standards to EPA for approval as a SIP revision.

(4) Revisions to the State of Oregon Clean Air Act Implementation Plan become federally enforceable upon approval by the EPA. If any provision of the federally approved State Implementation Plan conflicts with any provision adopted by the EQC, DEQ must enforce the more stringent provision.

**Statutory/Other Authority:** ORS 468.020 & 468A

**Statutes/Other Implemented:** ORS 468A.035 & 468A.135

## Supporting documents

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Attached: Infrastructure SIP Submittal for Purposes of Clean Air Act Sections 110(a)(1) and (a)(2) for the 2015 Ozone NAAQS.

Attached: Oregon State Implementation Plan Submittal Addressing the Interstate Transport of Ozone (O<sub>3</sub>)

# Infrastructure SIP Submittal for Purposes of Clean Air Act Sections 110(a)(1) and (a)(2) for the 2015 Ozone NAAQS

Submitted to: U.S. Environmental Protection Agency, Region 10  
By: Oregon Department of Environmental Quality  
October 2018

**Air Quality Division  
Air Planning**  
700 NE Multnomah St.  
Suite 600  
Portland, OR 97232  
Phone: 503-229-5696  
800-452-4011  
Fax: 503-229-6762  
Contact: [Karen Williams](mailto:karen.williams@deq.or.gov)  
[www.oregon.gov/DEQ](http://www.oregon.gov/DEQ)

DEQ is a leader in restoring, maintaining and enhancing the quality of Oregon's air, land and water.



State of Oregon  
Department of  
Environmental  
Quality



This report prepared by:

Oregon Department of Environmental Quality  
700 NE Multnomah Street, Suite 600  
Portland, OR 97232  
1-800-452-4011  
[www.oregon.gov/deq](http://www.oregon.gov/deq)

Contact:  
Karen Williams  
503-229-5519

Documents can be provided upon request in an alternate format for individuals with disabilities or in a language other than English for people with limited English skills. To request a document in another format or language, call DEQ in Portland at 503-229-5696, or toll-free in Oregon at 1-800-452-4011, ext. 5696; or email [deqinfo@deq.state.or.us](mailto:deqinfo@deq.state.or.us).

# Attachment 1: Infrastructure SIP Submittal

## CAA section 110(a)(2)(A)-(M) Requirements Checklist

Section 110(a) Element	Summary of Element	How Addressed
Ozone Definition	<i>Oregon's definitions related to ozone and ozone precursors.</i>	<p><u>Oregon Revised Statutes:</u></p> <p>ORS 468 Environmental Quality General</p> <p>ORS 468.020 Rules and Standards. Requires public hearing on any proposed rule or standard prior to adoption</p> <p>ORS 468A Air Quality</p> <p>ORS 468A.025 Air Purity Standards; Air Quality Standards; Treatment and Control of Emissions; Rules. Requires controls necessary to achieve ambient air quality standards and prevent significant impairment of visibility.</p> <p>ORS 468A.035 General Comprehensive Plan. Requires DEQ to develop a general comprehensive plan for the control or abatement of air pollution.</p> <p>ORS 468A.055 Notice Prior to Construction of New Sources; Order Authorizing or Prohibiting Construction; Effect of No Order; Appeal</p> <p>ORS 468A.070 Measurement and Testing of Contamination Sources; Rules</p> <p><u>Oregon Administrative Rules:</u></p> <p>OAR 340-200-0020 General Air Quality Definitions</p> <p>(36) "Criteria pollutant" means any of the following regulated pollutants: nitrogen oxides, volatile organic compounds, particulate matter, PM10, PM2.5, sulfur dioxide, carbon monoxide, and lead.</p> <p>(97) "Nitrogen oxides" or "NOx" means all oxides of nitrogen except nitrous oxide.</p>

# Attachment 1: Infrastructure SIP Submittal

## CAA section 110(a)(2)(A)-(M) Requirements Checklist

Section 110(a) Element	Summary of Element	How Addressed
		<p>(107) "Ozone precursor" means nitrogen oxides and volatile organic compounds.</p> <p>(108) "Ozone season" means the contiguous 3 month period during which ozone exceedances typically occur, i.e. June, July, and August.</p> <p>(134) "Regulated air pollutant" or "Regulated Pollutant" means (a)(A) Nitrogen oxides or any VOCs; (B) Any pollutant for which an ambient air quality standard has been promulgated, including any precursors to such pollutants;</p> <p>(190) "Volatile organic compounds" or "VOC" means any compound of carbon, excluding carbon monoxide, carbon dioxide, carbonic acid, metallic carbides or carbonates, and ammonium carbonate, that participates in atmospheric photochemical reactions.</p> <p>                     OAR 340-200-0025 Abbreviations and Acronyms                      (79) "O3" means ozone.                 </p> <p>                     OAR 340-250-0030 General Conformity Definitions                      (22) "National ambient air quality standards" or "NAAQS" means those standards established pursuant to Section 109 of the Act and include standards for carbon monoxide (CO), lead (Pb), nitrogen dioxide (NO<sub>2</sub>), ozone, particulate matter (PM<sub>10</sub>), and sulfur dioxide (SO<sub>2</sub>).                 </p> <p>(25) "Precursors of a criteria pollutant" means:</p> <p>(a) For ozone, nitrogen oxides (NO<sub>x</sub>), unless an area is exempted from NO<sub>x</sub> requirements under Section 182(f) of the Act, and volatile organic compounds (VOC);</p>

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## CAA section 110(a)(2)(A)-(M) Requirements Checklist

Section 110(a) Element	Summary of Element	How Addressed
		<p>OAR 340-256-0010 Motor Vehicles Definitions (45) “Oxides of Nitrogen” or NOx means oxides of nitrogen except nitrous oxides.</p>
<p>§110(a)(2)(A) Emission limits &amp; other control measures</p>	<p><i>Include enforceable emission limitations and other control measures, means, or techniques (including economic incentives such as fees, marketable permits, and auctions of emissions rights), as well as schedules and timetables for compliance as may be necessary or appropriate to meet the applicable requirements of this Act.</i></p>	<p><u>Oregon Revised Statutes:</u></p> <p>ORS 468 Environmental Quality Generally; Public Health and Safety; General Administration</p> <p>ORS 468.020 Rules and Standards. Requires public hearing on any proposed rule or standard prior to adoption</p> <p>ORS 468A Air Quality, Public Health and Safety, Air Pollution Control</p> <p>ORS 468A.010 Policy. Calls for joint responsibility for “a coordinated statewide program of air quality control and to allocate [responsibility] between the state and the units of local government . . . .”</p> <p>ORS 468A.015 Purpose of air pollution laws</p> <p>ORS 468A.020 Rules and Standards. Gives Environmental Quality Commission (EQC) authority to adopt rules and standards to perform function vested by law.</p> <p>ORS 468A.025 Air Purity Standards; Air Quality Standards; Treatment and Control of Emissions; Rules: EQC may establish...</p> <ul style="list-style-type: none"> <li>- (1) areas of state and prescribe air pollution &amp; contamination levels</li> <li>- (3) air quality standards including emission standards</li> <li>- (4) emission treatment and control provisions</li> </ul> <p>ORS 468A.035 General Comprehensive Plan. Oregon Department of Environmental Quality (DEQ) shall develop a general</p>

# Attachment 1: Infrastructure SIP Submittal

## CAA section 110(a)(2)(A)-(M) Requirements Checklist

Section 110(a) Element	Summary of Element	How Addressed
		<p>comprehensive plan for the control or abatement of air pollution</p> <p>ORS 468A.040 Permits; Rules. Provides that the EQC may require permits for air contamination sources, type of air contaminant, or specific areas of the State.</p> <p>ORS 468A.045 Activities Prohibited Without Permit; Limit on Activities with Permit</p> <p>ORS 468A.050 Classification of Air Contamination Sources; Registration and Reporting; Registration and Reporting of Sources; Rules; Fees</p> <p>ORS 468A.055 Notice Prior to Construction of New Sources; Order Authorizing or Prohibiting Construction; Effect of No Order; Appeal</p> <p>ORS 468A.070 Measurement and Testing of Contamination Sources; Rules</p> <p>ORS 468A.310 Federal operating permit program approval; rules; content of plan</p> <p>ORS 468A.315 Emission Fees for Major Sources; Base Fees; Basis of Fees; Rules</p> <p>ORS 468A.350 - .455 Motor Vehicle Pollution Control. Provides authority to implement emissions reductions programs related to motor vehicles.</p> <p>ORS 468A.625-.645 Chlorofluorocarbons and Halon Control</p> <p>ORS 468A.650-.660 Aerosol Spray Control</p> <p>ORS 468A.990 Penalties</p> <p><u>Oregon Administrative Rules:</u></p>

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## CAA section 110(a)(2)(A)-(M) Requirements Checklist

Section 110(a) Element	Summary of Element	How Addressed
		<p>OAR 340-200-0020 General Air Pollution Procedures and Definitions                      -0020 Definitions                      Defines “significant emissions rates,” “significant impact,” “significant impact level,” de minimis emission levels, and plant site emission limits (PSELS) for specific air pollutants and precursors.                      TABLE 1: Significant Air Quality Impact                      TABLE 2: Significant Emission Rates                      TABLE 4: De Minimis Emission Levels                      TABLE 5: Generic PSELS                      Defines “Federal Major Source” as major stationary source defined in part D of Title I of the CAA for ozone nonattainment areas, with exceptions.</p> <p>Defines and acknowledges CAA Section 182(f) and 182(f)(1) which require SIP provisions for “NOx in ozone nonattainment areas” and application of SIP provisions “developed for major VOC sources and major NOx sources in ozone nonattainment areas.”</p> <p>OAR 340-202 Ambient Air Quality Standards and PSD Increments. Defines ambient air quality standards for all NAAQS. Specifies PSD increments &amp; ceilings.                      - 0090 Ozone                      -0100 Nitrogen Dioxide                      - 0210 Ambient Air PSD Increments                      (1)(a)(D) Nitrogen Dioxide for Class I areas                      (1)(b)(D) Nitrogen Dioxide for Class II areas                      - 0220 Ambient Air Ceilings</p> <p>OAR 340-204 Designation of Air Quality Areas. Designates air quality areas in Oregon: Air Quality Control Regions and nonattainment, maintenance, PSD, special control, motor vehicle inspection boundary and oxygenated gas control areas.</p>

OAR 340-216 Air Contaminant Discharge Permits. Federally-enforceable, state operated permit program. This rule also serves as the administrative permit mechanism used to implement the major and minor new source review programs. The SIP-approved minor NSR program applies major source NSR-PSD requirements to any source with emissions over the significant emission rate.

OAR 340-222 Stationary Source Plant Site Emission Limits. Establishes criteria and method for regulating plant site emission limits of permit holders, to protect ambient air quality standards, PSD increments & visibility.

OAR 340-223 Regional Haze Rules  
Establish requirements for certain sources emitting air pollutants that reduce visibility and contribute to regional haze in Class I areas.

- 0070: Additional NO<sub>x</sub> Requirements for the Foster-Wheeler Boiler at Boardman Coal-Fired Power Plant.

OAR 340-224 New Source Review.  
Establishes permit program and requirements for major new and modified sources to avoid violation of an ambient air quality standard or PSD increment.

-0025(4) Major modification for ozone precursors

-0045: Requirements for Sources in Sustainment Areas

-0050: Requirements for Sources in Nonattainment Areas. (3)(a) Sources impacting other designated areas that emit ozone precursors (VOC or NO<sub>x</sub>) above certain limits considered to have significant impact if within 100 km of designated ozone area.

-0055: Requirements for Sources in Reattainment Areas

-0060: Requirements for Sources in Maintenance Areas. (2) Source must demonstrate Net Air Quality benefit by one of three requirements with (c) being allocation from growth allowance; (3)(a) same as -0050(3)(a). (7) Sources exempt

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## CAA section 110(a)(2)(A)-(M) Requirements Checklist

Section 110(a) Element	Summary of Element	How Addressed
		<p>from (2) in Medford Maintenance Area for NOx offsets and Salem Maintenance Area for VOC and NOx offsets.</p> <p>-0070: Prevention of Significant Deterioration Requirements for Sources in Attainment or Unclassified Areas. (4)(a) Sources impacting other designated areas that emit ozone precursors (VOC or NOx) above certain limits considered to have significant impact if within 100 km of designated ozone area.</p> <p>-0245 through -0270 State New Source Review: Requirements for Sources in multiple designated areas.</p> <p>-0520: Net Air Quality Benefit Emission Offsets: Requirements for Demonstrating Net Air Quality Benefit for Ozone Areas. Requires offsets for VOC and NOx for sources that will be located “within an ozone designated area or closer to the nearest boundary of an ozone designated area than the ozone impact distance,” defined as “the distance in kilometers from the nearest boundary of an ozone designated area within which a source of VOC or NOx is considered to significantly affect that designated area. The determination of significance is made by either” a formula or a demonstration method such as topographic analysis or dispersion modeling.</p> <p>OAR 340-226 General Emission Standards. Requires highest and best practicable treatment and control, consideration of impact of selected control methods, typically achievable control technology. Includes operating &amp; maintenance and grain loading requirements, and additional control requirements for stationary sources of air contaminants.</p> <p>-0400 Alternative Emission Controls (Bubble) (1)for VOC and NOx</p>

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## CAA section 110(a)(2)(A)-(M) Requirements Checklist

Section 110(a) Element	Summary of Element	How Addressed
		<p>OAR 340-232 Emission Standards for VOC Point Sources Regulates sources of VOC which contribute to the formation of photochemical oxidants, mainly ozone.</p> <p>OAR 340-236 Emission Standards for Specific Industries: Emission Limits</p> <p>OAR 340-242 Rules Applicable to the Portland Area</p> <ul style="list-style-type: none"> <li>- 0010-0290 Employee Commute Options (ECO) Program. Requires larger employers to provide commute options to encourage employees to reduce auto trips to the work site.</li> <li>-300-0390 Voluntary Maximum Parking Ratio Program. Encourages property owners to voluntarily locate and design facilities that need less parking by building in a more pedestrian, bicycle and transit friendly manner. Includes incentives (#0340)</li> <li>-0400-0440 Industrial Emission Management Program. Applies to VOC and NO<sub>x</sub> sources and to new major sources and major modifications that emit CO in Portland Metro area. Includes Unused PSEL Donation Program and Industrial Growth Allowance (incentives)</li> <li>- 0500-0520 Gasoline Vapors from Gasoline Transfer and Dispensing Operations</li> <li>- 0600-0630 Motor Vehicle Refinishing</li> <li>- 0700-0750 Spray Paint</li> </ul> <p>OAR 340-250 General Conformity. Implements requirements under Section 176(c) of the Clean Air Act with respect to the conformity of general federal actions to the applicable implementation plan</p> <ul style="list-style-type: none"> <li>- 0020 Applicability: sets emissions rates for federal actions in nonattainment and maintenance areas.</li> </ul>

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## CAA section 110(a)(2)(A)-(M) Requirements Checklist

Section 110(a) Element	Summary of Element	How Addressed
		<p>- 0038 Criteria for Determining Conformity of General Federal Actions.</p> <p>OAR 340-252 Transportation Conformity. Establishes policy, criteria, and procedures for demonstrating and assuring conformity of planning activities to an applicable implementation plan developed pursuant to section 110 and Part D of the CAA.</p> <p>OAR 340-256 Motor Vehicles. Air pollution control for mobile sources including motor vehicle inspection and maintenance program and fee schedule (fees: 340-256-0320).</p> <p>OAR 340-258 Motor Vehicle Fuel Specifications. Establishes requirements for fuel content for those distributing, refining, blending, supplying or selling gasoline for use in motor vehicles; applies Nov. 1 – Feb. 29 in CO maintenance areas.</p> <p>-0200 Certification of Pollution Control Systems: All motor vehicles, not exempted, registered in seven counties shall be equipped with a pollution control system and comply with emission standards.</p> <p>-0340 Light Duty and Heavy Duty Gasoline Motor Vehicle Emission Control Basic Test Method</p> <p>-0355 Emissions Control Test Method for OBD Test Program</p> <p>-0358 Emissions Control Test Method for Self-Service Testing Program</p> <p>-0380 Emission Control System Inspection: Light Duty Motor Vehicle Emission Control Test Criteria for Basic Program</p> <p>-0390 Emission Control System Inspection: Heavy Duty Gasoline Motor Vehicle Emission Control Test Criteria</p> <p>-0400 Emission Control System Inspection: Light Duty Motor Vehicle Emission Control Standards for Basic Program</p>

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## CAA section 110(a)(2)(A)-(M) Requirements Checklist

Section 110(a) Element	Summary of Element	How Addressed
		<p>-0420 Emission Control System Inspection: Heavy-Duty Gasoline Motor Vehicle Emission Control Standards</p> <p>OAR 340-268 Emission Reduction Credits (ERC). Addresses creation and banking of Emission Reduction Credits.</p>
<p>§110(a)(2)(B) Ambient air quality monitoring &amp; data analysis system</p>	<p><i>Provide for establishment and operation of appropriate devices, methods, systems, and procedures necessary to (i) monitor, compile, and analyze data on ambient air quality, and (ii) upon request, make such data available to the Administrator;</i></p>	<p><u>Oregon Revised Statutes:</u></p> <p>ORS 468 Environmental Quality Generally; Public Health and Safety; General Administration</p> <p>ORS 468.020 Rules and Standards. Requires public hearing on any proposed rule or standard prior to adoption.</p> <p>ORS 468A Air Quality, Public Health and Safety, Air Pollution Control</p> <p>ORS 468A.025 Air Purity Standards; Air Quality Standards; Treatment and Control of Emissions; Rules. Requires controls necessary to achieve ambient air quality standards and prevent significant impairment of visibility.</p> <p>ORS 468.035 (a-e, m) Functions of the Department. Authority to conduct &amp; supervise inquiries and programs to assess and communicate air conditions and to obtain necessary resources (assistance, materials, supplies, etc.) to meet these responsibilities.</p> <p>ORS 468A.055 Notice Prior to Construction of New Sources; Order Authorizing or Prohibiting Construction; Effect of No Order; Appeal</p> <p>ORS 468A.070 Measurement and Testing of Contamination Sources; Rules. Authority to establish a measurement and testing program pursuant to rules adopted by the EQC.</p>

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## CAA section 110(a)(2)(A)-(M) Requirements Checklist

Section 110(a) Element	Summary of Element	How Addressed
		<p><u>Oregon Administrative Rules:</u></p> <p>OAR 340-200 General Air Pollution Procedures and Definitions. Defines “Criteria Pollutant” at (31) as nitrogen oxides, volatile organic compounds, particulate matter, PM10, PM2.5, sulfur dioxide, carbon monoxide, or lead. Also specifically defines NOx and SO2 as precursors to PM2.5 at (71), and NOx and VOCs as precursors to ozone at (71). Defines significant emissions rates, de minimis emission levels, and plant site emission rates for specific air pollutants and precursors.</p> <p>OAR 340-212 Stationary Source Testing and Monitoring. Sets requirements, methods, and criteria for emission monitoring and reporting.</p> <p>-0110 Applies to all stationary sources and portable sources required to have permits by OAR 340-216.</p> <p><u>DEQ Reports:</u></p> <p>2015 Oregon Five-Year Ambient Network Assessment, September 2015.</p> <p>2017 Oregon Annual Ambient Air Monitoring Network Plan. Submitted to Environmental Protection Agency, Region 10 on June 20, 3017 and approved by EPA on May 10, 2018. For more information, see: <a href="https://www.oregon.gov/deq/FilterDocs/AQ_monitoringplan.pdf">https://www.oregon.gov/deq/FilterDocs/AQ_monitoringplan.pdf</a></p> <p>NOTE: A comprehensive air quality monitoring plan, intended to meet the requirements of 40 CFR part 58, was submitted by DEQ on December 27, 1979 (40 CFR 52.1970) and was approved by the EPA on March 4, 1981 (46 FR 15136). The air quality monitoring plan is updated every year to reflect the latest monitoring network. This plan includes, among other</p>

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## CAA section 110(a)(2)(A)-(M) Requirements Checklist

Section 110(a) Element	Summary of Element	How Addressed
		<p>things, the locations for the nitrogen dioxide monitoring network. Oregon provides an annual air quality data report to the public on the DEQ website. The most recent report is located here:</p> <p><a href="https://www.oregon.gov/deq/FilterDocs/OrAirQualityAnnualReport2016.pdf">https://www.oregon.gov/deq/FilterDocs/OrAirQualityAnnualReport2016.pdf</a>. Oregon sends real time air monitoring information for ozone, particulate matter, and carbon monoxide to EPA’s AIRNow web page at <a href="http://www.airnow.gov">http://www.airnow.gov</a> and also provides the information on the ODEQ Air Quality Index (AQI) website at <a href="https://oraqi.deq.state.or.us/home/map">https://oraqi.deq.state.or.us/home/map</a>.</p>
<p>§110(a)(2)(C) Program to enforce control measures, regulate modification &amp; construction of stationary sources and a permit program</p>	<p><i>Include a program to provide for the enforcement of the measures described in subparagraph (A) and regulation of the modification and construction of any stationary source within the areas covered by the plan as necessary to assure that national ambient air quality standards are achieved, including a permit program as required in parts C and D of this subchapter;</i></p>	<p><i>Two elements identified in section 110(a)(2) include requirements that are not governed by the 3-year submission deadline of section 110(a)(1). The requirements pertain to part D, of title I of the CAA, which addresses plan requirements for nonattainment areas. Therefore, the following section 110(a)(2) elements are considered by EPA to be outside the scope of infrastructure SIP actions: (1) section 110(a)(2)(C) to the extent it refers to permit programs (known as "nonattainment new source review") required under part D; and (2) section 110(a)(2)(I) in its entirety. EPA does not expect infrastructure SIP submittals to include regulations or emission limits developed specifically for attaining the relevant standard. Those submittals are due at the time the nonattainment area planning requirements are due (18 months following designation).</i></p> <p><u>Oregon Revised Statutes:</u> ORS 468 Environmental Quality Generally; Public Health and Safety; General Administration</p> <p>ORS 468.020 Rules and Standards. Requires public hearing on any proposed rule or standard prior to adoption</p>

# Attachment 1: Infrastructure SIP Submittal

## CAA section 110(a)(2)(A)-(M) Requirements Checklist

Section 110(a) Element	Summary of Element	How Addressed
		<p>ORS 468.035 (j, k) Functions of the Department</p> <ul style="list-style-type: none"> <li>-j Shall seek enforcement of state air quality pollution laws</li> <li>-k Shall compel compliance with any rule, standard, order, permit or condition</li> </ul> <p>ORS 468.065 Issuance of Permits; Consent; Fees; Use. Provides authority and requirements to DEQ for issuing permits, the content of those permits, fee schedules, and reporting.</p> <p>ORS 468.070 Denial, Modification, Suspension or Revocation of Permits. Provides authority to deny, modify, suspend or revoke a permit if ODEQ finds a material misrepresentation or false statement in the application; failure to comply with the permit; or violation of an applicable law, rule, standard or order. ODEQ may also modify a permit if it is necessary for the proper administration, implementation or enforcement of the provisions in applicable laws.</p> <p>ORS 468.090-.140 Enforcement. Provides DEQ with authority to investigate complaints, investigate and inspect sources for compliance, access records, commence enforcement procedures, and impose civil penalties.</p> <p>ORS 468.920-.963 Environmental Crimes. Authorizes and provides categories related to criminal enforcement and associated fines.</p> <p>ORS 468.996-.997 Civil Penalties. Provides additional penalties for persons who intentionally or recklessly violate provisions of specific chapters of ORS, including 468 and 468A or any rule, standard, or order pursuant to ORS 468 and 468A “which results in or creates the imminent likelihood</p>

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## CAA section 110(a)(2)(A)-(M) Requirements Checklist

Section 110(a) Element	Summary of Element	How Addressed
		<p>for an extreme hazard to the public health or which causes extensive damage to the environment.”</p> <p>ORS 468A Air Quality, Public Health and Safety, Air Pollution Control</p> <p>ORS 468A.025 Air Purity Standards; Air Quality Standards; Treatment and Control of Emissions; Rules. Requires controls necessary to achieve ambient air quality standards and prevent significant impairment of visibility.</p> <p>ORS 468A.035 General Comprehensive Plan. Requires DEQ to develop a general comprehensive plan for the control or abatement of air pollution.</p> <p>ORS 468A.040 Permits; Rules. EQC may require permits for air contamination sources, etc.</p> <p>ORS 468A.045 Activities Prohibited Without Permit; Limit on Activities With Permit. Prohibits any person from discharging, emitting or allowing to be discharged or emitted any air contaminant for which a permit is required. Prohibits construction, installation, modification, operation, increase in emissions, etc. of any air contamination source for which a permit is required.</p> <p>ORS 468A.050 Classification of Air Contamination Sources; Registration and Reporting; Registration and Reporting of Sources; Rules; Fees</p> <p>ORS 468A.055 Notice Prior to Construction of New Sources; Order Authorizing or Prohibiting Construction; Effect of No Order; Appeal. Provides authority to EQC (or DEQ) to establish notice requirements prior to construction of new sources, issue</p>

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## CAA section 110(a)(2)(A)-(M) Requirements Checklist

Section 110(a) Element	Summary of Element	How Addressed
		<p>orders to prohibit the construction of a new source, and lays out an appeal process.</p> <p>ORS 468A.070 Measurement and Testing of Contamination Sources; Rules</p> <p>ORS 468A.310 Federal operating permit program approval; rules; content of plan</p> <p>ORS 468A.990 Penalties for air pollution offenses. Establishes that violations of any rule or standard or order issued by a regional authority relating to air pollution is a Class A misdemeanor and that each day of violation of constitutes a separate offense.</p> <p><u>Oregon Administrative Rules:</u></p> <p>OAR 340-012 Enforcement Procedure and Civil Penalties. Establishes enforcement actions to encourage compliance with environmental regulations and to protect public health &amp; the environment.</p> <p>OAR 340-202 Ambient Air Quality Standards and PSD Increments. Defines ambient air quality standards for all NAAQS. Specifies PSD increments &amp; ceilings.</p> <ul style="list-style-type: none"> <li>- 0090 Ozone</li> <li>- 0100 Nitrogen Dioxide</li> </ul> <p>OAR 340-210 Stationary Source Notification Requirements. Establishes registration requirements for stationary air contaminant sources not subject to ACDP or title V permits and regulates construction &amp; modification of these sources and air pollution control equipment.</p> <p>OAR 340-214 Stationary Source Reporting Requirements. Establishes reporting requirements for stationary sources, and requires recordkeeping on the nature, type and amount of emissions.</p> <ul style="list-style-type: none"> <li>- 0120 Enforcement of Reporting requirements</li> </ul>

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## CAA section 110(a)(2)(A)-(M) Requirements Checklist

Section 110(a) Element	Summary of Element	How Addressed
		<p>- 0350 Enforcement action criteria for excess emissions</p> <p>OAR 340-216 Air Contaminant Discharge Permits (ACDP). Federally-enforceable state operation permit program. This rule also serves as the administrative permit mechanism used to implement the major and minor new source review programs. The SIP-approved minor NSR program applies major source NSR-PSD requirements to any source with emissions over the significant emission rate.</p> <p>OAR 340-224 Major New Source Review. Regulates construction and modification of proposed major sources within nonattainment &amp; maintenance areas and federal major sources and modifications within attainment &amp; unclassified areas.</p> <p>NOTE: EPA most recently approved revisions to Oregon’s PSD program on October 11, 2017 (82 FR 47122).</p>
<p>§110(a)(2)(D)(i)(I) Interstate transport as it relates to significant contribution to nonattainment and interference with maintenance</p>	<p><i>Contain adequate provisions (i) prohibiting, consistent with the provisions of this subchapter, any source or other type of emissions activity within the state from emitting any air pollutant in amounts which will (I) contribute significantly to nonattainment in, or interfere with maintenance by, any other state with respect to any such national primary or secondary ambient air quality standard, or</i></p>	<p><u>CAA section 110(a)(2)(D)(i)(I) Interstate Transport as it relates to significant contribution to nonattainment and interference with maintenance:</u></p> <p>The Oregon SIP submission addressing the Interstate transport of ozone is attached.</p>
<p>§110(a)(2)(D)(i)(II) Interstate transport as it relates to PSD and visibility</p>	<p><i>(II) interfere with measures required to be included in the applicable implementation plan for any other State under part C of this subchapter to prevent significant deterioration of air quality or to protect visibility,</i></p>	<p><i>Oregon’s Administrative Rules are consistent with federal requirements per Appendix N of 40 CFR 50 pertaining to the notification of interstate pollution abatement.</i></p>

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## CAA section 110(a)(2)(A)-(M) Requirements Checklist

Section 110(a) Element	Summary of Element	How Addressed
		<p><u>Oregon rules and statutes that specifically address CAA section 110(a)(2)(D)(i)(II) Interstate transport as it relates to PSD:</u></p> <p><u>Oregon Revised Statutes:</u></p> <p>ORS 468 Environmental Quality Generally; Public Health and Safety; General Administration</p> <p>ORS 468A Air Quality, Public Health and Safety, Air Pollution Control</p> <p><u>Oregon Administrative Rules:</u></p> <p>OAR 340-200 General Air Pollution Definitions and Procedures. Defines general air pollution terms.</p> <ul style="list-style-type: none"> <li>- 0020 General Air Quality Definitions (6) “Affected States” Specifies neighboring states.</li> </ul> <p>OAR 340-202 Ambient Air Quality and PSD Increments. Defines ambient air quality standards for all NAAQS. Specifies PSD increments &amp; ceilings.</p> <ul style="list-style-type: none"> <li>- 0210 Ambient Air Increments, Table 1</li> <li>- 0220 Ambient Air Ceilings</li> </ul> <p>OAR 340-209 Public Participation. Specifies the requirements for notifying the public of certain permit actions and providing an opportunity for the public to participate in those permit actions.</p> <ul style="list-style-type: none"> <li>- 0060 Persons Required to be Notified. Includes state notification.</li> </ul> <p>OAR 340-216 Air Contaminant Discharge Permits (ACDP). Federally enforceable state operation permit program. This rule also serves as the administrative permit mechanism used to implement the major and minor new source review (NSR) programs.</p>

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## CAA section 110(a)(2)(A)-(M) Requirements Checklist

Section 110(a) Element	Summary of Element	How Addressed
		<p>The SIP-approved minor NSR program applies major source NSR-PSD requirements to any source with emissions over the significant emission rate.</p> <p>OAR 340-224 New Source Review. Regulates construction and modification of proposed major sources within nonattainment, maintenance and re-attainment areas and federal major sources and modifications within attainment, unclassified and sustainment areas.</p> <p><u>Oregon rules and statutes that specifically address CAA section 110(a)(2)(D)(i)(II) Interstate transport as it relates to visibility:</u></p> <p>OAR 340-223 Regional Haze Rules: Establishes requirements for certain industrial sources that contribute to regional haze in Class I areas, for the purpose of implementing Best Available Retrofit Technology requirements.</p> <p>NOTE: On May 17, 2018, EPA approved a progress report to Oregon’s Regional Haze SIP (83 FR 22853) and determined that the existing regional haze SIP is adequate to meet the state’s visibility goals and requires no substantive revision at this time.</p> <p>OAR 340-224 New Source Review. Regulates construction and modification of proposed major sources within nonattainment, maintenance and re-attainment areas and federal major sources and modifications within attainment, unclassified and sustainment areas.</p>
<p>§110(a)(2)(D)(ii) Interstate and international pollution</p>	<p><i>(ii) insuring compliance with the applicable requirements of sections 126 and 115 (relating to interstate and international pollution abatement);</i></p>	<p><u>Oregon Revised Statutes:</u></p> <p>ORS 468.020 Rules and Standards Requires public hearing on any proposed rule or standard prior to adoption</p> <p><u>Oregon Administrative Rules:</u></p>

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## CAA section 110(a)(2)(A)-(M) Requirements Checklist

Section 110(a) Element	Summary of Element	How Addressed
		<p>OAR 340-209 Public Participation: specifies the requirements for notifying the public of certain permit actions and providing an opportunity for the public to participate in those permit actions.</p> <p>- 0060 Persons Required to be Notified: includes state notification.</p> <p>NOTE: State regulations are consistent with Federal requirements in Appendix N of 40 CFR part 50 pertaining to the notification of interstate pollution abatement.</p>
<p>§110(a)(2)(E)(i) Adequate personnel, funding and authority to carry out plan</p>	<p><i>Provide (i) necessary assurances that the state (or, except where the Administrator deems inappropriate, the general purpose local government or governments, or a regional agency designated by the state or general purpose local governments for such purpose) will have adequate personnel, funding, and authority under state (and, as appropriate, local) law to carry out such implementation plan (and is not prohibited by any provision of federal or state law from carrying out such implementation plan or portion thereof);</i></p>	<p><u>Oregon Revised Statutes:</u></p> <p>ORS 468.035 Functions of Department (d, h). Authority to employ personnel, purchase supplies, enter into contracts, and to receive, appropriate and expend federal and other funds for purposes of air pollution research and control</p> <p>ORS 468A.045 Functions of Director; Delegation. Power to hire, assign, reassign, and coordinate personnel of the department</p> <p><u>Interagency Agreements:</u></p> <p>Intergovernmental Agreement between DEQ and LRAPA: DEQ has entered into an intergovernmental agreement to delegate its authority to implement the requirements of the Clean Air Act in Lane County, Oregon to the Lane Regional Air Protection Agency. For more information, please see the Intergovernmental Agreement between DEQ and LRAPA (DEQ Agreement #057-18). DEQ's Performance and Partnership Agreement (PPA) with EPA. The Oregon Performance Partnership Agreement describes how DEQ and EPA Region 10 will work together to protect Oregon's environment. The PPA is an agreement</p>

# Attachment 1: Infrastructure SIP Submittal

## CAA section 110(a)(2)(A)-(M) Requirements Checklist

Section 110(a) Element	Summary of Element	How Addressed
		<p>documenting the commitments of EPA and DEQ regarding implementation of federally-delegated environmental programs and is the result of a several month negotiation process. The PPA’s Air Quality appendix contains program-specific work plans for the Oregon Air Quality program along with commitments for FTE and funding support. EPA Region 10 and DEQ signed the current PPA on 7/1/16 (expires 10/31/19).</p> <p>Note: DEQ received CAA section 105 grants from EPA and DEQ matches those grants through the state’s General Fund. DEQ’s PPA with EPA contains more information.</p>
<p>§110(a)(2)(E)(ii) Comply with state boards</p>	<p><i>(ii) requirements that the state comply with the requirements respecting state boards under section 128 of this title, and</i></p>	<p><u>Oregon Revised Statutes:</u></p> <p>ORS 468 Environmental Quality Generally; Public Health and Safety; General Administration</p> <ul style="list-style-type: none"> <li>- 035(c) Functions of Department Authority to advise, consult, and cooperate with other states, state and federal agencies, or political subdivisions on all air quality control matters.</li> </ul> <p>ORS 468A Air Quality, Public Health and Safety, Air Pollution Control</p> <p><u>Formation and oversight of regional air quality control agencies:</u></p> <p>ORS 468A.105 Formation of regional air quality control authorities</p> <p>ORS 468A.135 Function of authority; rules.</p> <p>ORS 468A.155 Rules authorizing regional permit programs.</p> <p>ORS 468A.165 Compliance with state standards required; hearing; notice</p>

# Attachment 1: Infrastructure SIP Submittal

## CAA section 110(a)(2)(A)-(M) Requirements Checklist

Section 110(a) Element	Summary of Element	How Addressed
		<p><u>Oregon Administrative Rules:</u></p> <p>    OAR 340-200-0100: Purpose</p> <p>    OAR 340-200-0110: Public Interest</p> <p>    OAR 340-200-0120: Disclosure of Potential Conflicts of Interest</p> <p>    Note: EPA approved OAR 340-200-0100 through OAR 340-200-0120 as meeting the requirements of CAA section 128 on January 22, 2003 (68 FR 2891).</p> <p>    Lane Regional Air Protection Agency rules:</p> <p>    LRAPA Title 12, Section 025 (recodified to LRAPA Title 13, Section 025): Conflict of Interest.</p> <p>    Note: EPA approved LRAPA Title 12, Section 025 (recodified to LRAPA Title 13, Section 025) as meeting CAA section 128 on March 1, 1989 (54 FR 8538).</p>
<p>§110(a)(2)(E)(iii) oversee local &amp; regional governments/agencies</p>	<p><i>(iii) necessary assurances that, where the state has relied on a local or regional government, agency, or instrumentality for the implementation of any plan provision, the state has responsibility for ensuring adequate implementation of such plan provision;</i></p>	<p><u>Oregon Revised Statutes:</u></p> <p>    ORS 468 Environmental Quality Generally; Public Health and Safety; General Administration</p> <p>    ORS 468.020 Rules and Standards. Requires public hearing on any proposed rule or standard prior to adoption</p> <p>    ORS 468.035 (c) Functions of Department. Authority to advise, consult, and cooperate with other states, state and federal agencies, or political subdivisions on all air quality control matters.</p> <p>    ORS 468A Air Quality, Public Health and Safety, Air Pollution Control</p> <p>    ORS 468A.010 Policy. Calls for joint responsibility for “a coordinated statewide</p>

# Attachment 1: Infrastructure SIP Submittal

## CAA section 110(a)(2)(A)-(M) Requirements Checklist

Section 110(a) Element	Summary of Element	How Addressed
		<p>program of air quality control and to allocate [responsibility] between the state and the units of local government . . . .”</p> <p>ORS 468A.025 Air Purity Standards; Air Quality Standards; Treatment and Control of Emissions; Rules. Requires controls necessary to achieve ambient air quality standards and prevent significant impairment of visibility.</p> <p>ORS 468A.035 General Comprehensive Plan. Requires DEQ to develop a general comprehensive plan for the control or abatement of air pollution.</p> <p>ORS 468A.040 Permits; Rules. Provides that the EQC may require permits for air contamination sources, type of air contaminant, or specific areas of the State.</p> <p>ORS 468A.050 Classification of Air Contamination Sources; Registration and Reporting; Registration and Reporting of Sources; Rules; Fees</p> <p>ORS 468A.070 Measurement and Testing of Contamination Sources; Rules</p> <p>ORS 468A.100-180 Regional Air Quality Control Authorities. Describes the establishment, role, and function of Regional Authorities.</p> <p><u>Oregon Administrative Rules:</u></p> <p>OAR 340-200 General Air Pollution Procedures and Definitions</p> <ul style="list-style-type: none"> <li>-0010 Specifies that Lane Regional Air Protection Agency (LRAPA) has authority in Lane County</li> <li>-0020 defines a “Regional Agency”.</li> <li>-0040 describes inclusion of the regional agency’s actions into the SIP.</li> </ul>

# Attachment 1: Infrastructure SIP Submittal

## CAA section 110(a)(2)(A)-(M) Requirements Checklist

Section 110(a) Element	Summary of Element	How Addressed
		<p>OAR 340-204 Designation of Air Quality Areas. Includes Designation of Control Areas within Lane County.</p> <p>OAR 340-216 Air Contaminant Discharge Permits. Relating to ACDP includes authorities for LRAPA and inclusion in the SIP.</p>
<p>§110(a)(2)(F) Stationary source emissions monitoring and reporting system</p>	<p><i>require, as may be prescribed by the Administrator</i></p> <p><i>(i) the installation, maintenance, and replacement of equipment, and the implementation of other necessary steps by owners or operators of stationary sources to monitor emissions from such sources,</i></p> <p><i>(ii) periodic reports on the nature and amounts of emissions and emissions-related data from such sources, and</i></p> <p><i>(iii) correlation of such reports by the state agency with any emission limitations or standards established pursuant to this Act, which reports shall be available at reasonable times for public inspection;</i></p>	<p><u>Oregon Revised Statutes:</u></p> <p>ORS 468 Environmental Quality Generally; Public Health and Safety; General Administration</p> <p>ORS 468.020 Rules and Standards. Requires public hearing on any proposed rule or standard prior to adoption</p> <p>ORS 468.035 (b, d) Functions of Department. Authority to conduct &amp; supervise inquiries and programs to assess and communicate air conditions and to obtain necessary resources (assistance, materials, supplies, etc.) to meet these responsibilities.</p> <p>ORS 468A Air Quality, Public Health and Safety, Air Pollution Control</p> <p>ORS 468A.025 (4) Air Purity Standards; Air Quality Standards; Treatment and Control of Emissions; Rules. Commission shall adopt rules, require permit conditions for operation and maintenance of pollution control equipment, and require typically achievable control technology for new, modified and existing sources of air contaminants or precursors for stationary sources</p> <p>ORS 468A.070 Measurement and Testing of Contamination Sources; Rules</p> <p>ORS 468A.310 Federal operating permit program approval; rules; content of plan</p>

# Attachment 1: Infrastructure SIP Submittal

## CAA section 110(a)(2)(A)-(M) Requirements Checklist

Section 110(a) Element	Summary of Element	How Addressed
		<p>ORS 468A.365 Certification of Motor Vehicle Pollution Control Systems and Inspection of Motor Vehicles; Rules. Designate methods and standards for testing systems and inspecting motor vehicles</p> <p><u>Oregon Administrative Rules:</u>                      OAR 340-209 Public Participation</p> <p>OAR 340-212 Stationary Source Testing and Monitoring. Requires facilities to monitor and report emissions, including requirements for monitoring methods and design, and Monitoring &amp; Quality Improvement plans, etc.</p> <p>OAR 340-214 Stationary Source Reporting Requirements. Requires stationary sources to maintain written records to determine compliance with emission rules, limitations or control measures for any regulated air pollutant and provides requirements for reporting and recordkeeping.</p> <p>OAR 340-222 Stationary Source Plant Site Emission Limits                      - 0080 Plant Site Emission Limit Compliance: Specifies permittee must monitor and maintain records to demonstrate compliance. Specifies frequency and method of monitoring for PSELs.</p> <p>OAR 340-224-0070 New Source Review, Prevention of Significant Deterioration Requirements for Sources in Attainment or Unclassified Areas. (1)(a)(B) Preconstruction Air Quality Monitoring required for ozone unless data or modeling shows VOC less than 100 tons/year or if ozone concentrations less than 50% of ozone ambient standard with full season of monitoring.</p>

# Attachment 1: Infrastructure SIP Submittal

## CAA section 110(a)(2)(A)-(M) Requirements Checklist

Section 110(a) Element	Summary of Element	How Addressed
		<p>OAR 340-225 Air Quality Analysis Requirements</p> <p>OAR 340-232 Emission Standards for VOC Point Sources                      -0100 Testing Vapor Transfer and Collection Systems, (4) Recordkeeping and Reporting.                      -0140 Petroleum Refinery Leaks, (3) Monitoring, Recordkeeping, Reporting</p> <p>OAR 340-236 Emission Standards for Specific Industries</p> <p>OAR 340-250 General Conformity. Implements requirements under Section 176(c) of the Clean Air Act with respect to the conformity of general federal actions to the applicable implementation plan</p> <p>OAR 340-258-0010 through 0310: Motor Vehicle Fuel Specifications, record keeping and reporting.</p> <p>Note: Oregon submits data to the National Emissions Inventory for the six criteria pollutants. EPA compiles the emissions data and provides it to the public at the following website: <a href="https://www.epa.gov/air-emissions-inventories">https://www.epa.gov/air-emissions-inventories</a></p>
<p>§110(a)(2)(G)                      Authority to declare air pollution emergency and notify public</p>	<p><i>Provide for authority comparable to that in section 303 of this title and adequate contingency plans to implement such authority;</i></p>	<p><u>Oregon Revised Statutes:</u></p> <p>ORS 468 Environmental Quality Generally; Public Health and Safety; General Administration</p> <p>ORS 468.020 Rules and Standards. Requires public hearing on any proposed rule or standard prior to adoption</p> <p>ORS 468A Air Quality, Public Health and Safety, Air Pollution Control</p>

# Attachment 1: Infrastructure SIP Submittal

## CAA section 110(a)(2)(A)-(M) Requirements Checklist

Section 110(a) Element	Summary of Element	How Addressed
		<p>ORS 468A.310 Federal operating permit program approval; rules; content of plan</p> <p>ORS 468.115 Enforcement in Cases of Emergency. Authorizes the DEQ Director, at the direction of the Governor, to enter a cease &amp; desist order for polluting activities that present an imminent and substantial danger to public health</p> <p><u>Oregon Administrative Rules:</u></p> <p>OAR 340-206 Air Pollution Emergencies. Air pollution emergency episode procedures. Authorizes the DEQ Director to declare an air pollution alert or warning, or to issue an advisory to notify the public. The Department shall notify the Governor when declaring an emergency. This section describes the existing emergency episode procedures in place.</p> <ul style="list-style-type: none"> <li>-0010 Air Pollution Emergencies</li> <li>-0030 Episode Stage Criteria for Air Pollution Emergencies</li> </ul> <p>OAR 340-214 Stationary Source Reporting Requirements</p>
<p>§110(a)(2)(H) Future SIP revisions</p>	<p><i>Provide for revision of such plan</i></p> <p><i>(i) from time to time as may be necessary to take account of revisions of such national primary or secondary ambient air quality standard or the availability of improved or more expeditious methods of attaining such standard, and</i></p> <p><i>(ii) except as provided in paragraph (3)(C), whenever the Administrator finds on the basis of information available to the Administrator that the plan is substantially inadequate to attain the national ambient air quality standard which it implements, or to otherwise comply with any</i></p>	<p><u>Oregon Revised Statutes:</u></p> <p>ORS 468.020 Rules and Standards. Requires public hearing on any proposed rule or standard prior to adoption</p> <p>ORS 468A.035 General Comprehensive Plan. Requires DEQ to develop a general comprehensive plan for the control or abatement of air pollution.</p> <p>ORS 468A.070 Measurement and Testing of Contamination Sources; Rules</p> <p><u>Oregon Administrative Rules:</u></p> <p>OAR 340-200 General Air Pollution Procedures and Definitions</p>

# Attachment 1: Infrastructure SIP Submittal

## CAA section 110(a)(2)(A)-(M) Requirements Checklist

Section 110(a) Element	Summary of Element	How Addressed
	<i>additional requirements established under this Act;</i>	- 0040 State of Oregon Clean Air Act Implementation Plan. Provides for revisions to Oregon’s SIP and submittal of revisions to the EPA - this includes standards submitted by a regional authority and adopted verbatim to DEQ rules.
§110(a)(2)(I) Nonattainment requirements	<i>in the case of a plan or plan revision for an area designated as a nonattainment area, meet the applicable requirements of part D (relating to nonattainment areas);</i>	Two elements identified in section 110(a)(2) include requirements that are not governed by the 3-year submission deadline of section 110(a)(1). The requirements pertain to part D, of title I of the CAA, which addresses plan requirements for nonattainment areas. Therefore, the following section 110(a)(2) elements are considered by EPA to be outside the scope of infrastructure SIP actions and are not addressed in this SIP submittal: (1) section 110(a)(2)(C) to the extent it refers to permit programs (known as "nonattainment new source review") required under part D; and (2) section 110(a)(2)(I) in its entirety. EPA does not expect infrastructure SIP submittals to include regulations or emission limits developed specifically for attaining the relevant standard. Those submittals are due at the time the nonattainment area planning requirements are due (18 months following designation).
§110(a)(2)(J) (section 121 consultation)	<i>Meet the applicable requirements of section 121 (relating to consultation), ...</i>	<u>Oregon Revised Statutes:</u> ORS 468.020 Rules and Standards. Requires public hearing on any proposed rule or standard prior to adoption  ORS 468.035 (a, c, f-g) Functions of department -a. encourages voluntary cooperation with local govt. and others in restoring & preserving air quality -c. Shall advise, consult, and cooperate with state & federal agencies and

# Attachment 1: Infrastructure SIP Submittal

## CAA section 110(a)(2)(A)-(M) Requirements Checklist

Section 110(a) Element	Summary of Element	How Addressed
		<p>political subdivisions in air quality control matters</p> <p>-f. Shall provide advisory technical consultation and services to local &amp; state agencies</p> <p>ORS 468A.010 (1) b &amp; c Policy Facilitates cooperation between state and local government in air quality control</p> <p><u>Oregon Administrative Rules:</u></p> <p>OAR 340-209 Public Participation. Provides for notification to, and participation by, the public in certain permit actions.</p> <p>OAR 340-224 New Source Review</p> <p>Note: On April 15, 2015, the Oregon Environmental Quality Commission adopted revisions updating the PSD program in Oregon.</p> <p>OAR 340-252 Transportation Conformity OAR 340-223 Regional Haze Rules</p>
<p>§110(a)(2)(J) (section 127 public notification)</p>	<p><i>Meet the applicable requirements of... section 127 (relating to public notification)</i></p>	<p><u>Oregon Revised Statutes:</u></p> <p>ORS 468 Environmental Quality Generally; Public Health and Safety; General Administration</p> <p>ORS 468.020 Rules and Standards. Requires public hearing on any proposed rule or standard prior to adoption</p> <p>ORS 468.035 (a, c, f-g) Functions of department</p> <p>-a. encourages voluntary cooperation with local govt. and others in restoring &amp; preserving air quality</p> <p>-e. shall conduct and supervise air pollution control education programs</p>

# Attachment 1: Infrastructure SIP Submittal

## CAA section 110(a)(2)(A)-(M) Requirements Checklist

Section 110(a) Element	Summary of Element	How Addressed
		<p>ORS 468A Air Quality, Public Health and Safety, Air Pollution Control</p> <p><u>Oregon Administrative Rules:</u></p> <p>OAR 340-206 Air Pollution Emergencies. Provides for public notification for both emergency and non-emergency air quality conditions.</p> <p>OAR 340-209 Public Participation. Specifies the requirements for notifying the public of certain permit actions and providing an opportunity for the public to participate in those permit actions.                      -0060 Persons Required to be Notified: includes state notification</p> <p>OAR 340-216 Air Contaminant Discharge Permits</p> <p>OAR 340- 252 Transportation Conformity</p> <p>OAR 340-223 Regional Haze Rules</p> <p>Oregon participates and submits information to the EPA’s AIRNOW and Enviroflash Air Quality Alert programs which provide information to the public on local air quality.</p> <p>Oregon also provides the AQI to the public at <a href="https://oraqi.deq.state.or.us/home/map">https://oraqi.deq.state.or.us/home/map</a>.</p>
<p>§110(a)(2)(J) PSD &amp; visibility protection</p>	<p><i>Meet the applicable requirements of ... part C (relating to prevention of significant deterioration of air quality and visibility protection);</i></p>	<p><i>The US EPA does not believe that the visibility element of 110(a)(2)(J) is triggered by a NAAQS revision. Therefore, the visibility protection element of 110(a)(2)(J) is not addressed within this crosswalk. For more information, please see 77 FR 6044.</i></p> <p><u>Oregon Revised Statutes:</u></p> <p>ORS 468 Environmental Quality Generally; Public Health and Safety; General Administration</p>

# Attachment 1: Infrastructure SIP Submittal

## CAA section 110(a)(2)(A)-(M) Requirements Checklist

Section 110(a) Element	Summary of Element	How Addressed
		<p>ORS 468.020 Rules and Standards. Requires public hearing on any proposed rule or standard prior to adoption</p> <p>ORS 468A Air Quality, Public Health and Safety, Air Pollution Control</p> <p>ORS 468A.025 Air Purity Standards; Air Quality Standards; Treatment and Control of Emissions; Rules. Requires controls necessary to achieve ambient air quality standards and prevent significant impairment of visibility.</p> <p><u>Oregon Administrative Rules:</u></p> <p>OAR 340-202 Ambient Air Quality Standards and PSD Increments                      - 0200-0220 PSD Increments Specifies ambient air increments &amp; ceilings.</p> <p>OAR 340-204 Designation of Air Quality Areas                      - 0050-0060 Designation &amp; re-designation of PSD areas.</p> <p>OAR 340-216 Air Contaminant Discharge Permits (ACDP). Federally enforceable state operation permit program. This rule also serves as the administrative permit mechanism used to implement the major and minor new source review (NSR) programs. The SIP approved minor NSR program applies major source NSR-PSD requirements to any source with emissions over the significant emission rate.</p> <p>OAR 340-224 New Source Review. Regulates construction and modification of proposed major sources within nonattainment, maintenance and re-attainment areas and federal major sources and modifications within attainment, unclassified and sustainment areas.</p>

# Attachment 1: Infrastructure SIP Submittal

## CAA section 110(a)(2)(A)-(M) Requirements Checklist

Section 110(a) Element	Summary of Element	How Addressed
		<p>OAR 340-225 Air Quality Analysis Requirements</p> <ul style="list-style-type: none"> <li>- 0050-0060 In PSD areas. Requirements for analysis and demonstrating compliance with standards and increments.</li> <li>- 0090 Requirements for Demonstrating a Net Air Quality Benefit</li> </ul> <p>NOTE: EPA most recently approved revisions to Oregon’s PSD program on October 11, 2017 (82 FR 47122).</p>
<p>§110(a)(2)(K) Air quality modeling/data</p>	<p><i>Provide for:</i></p> <ul style="list-style-type: none"> <li><i>(i) the performance of such air quality modeling as the Administrator may prescribe for the purpose of predicting the effect on ambient air quality of any emissions of any air pollutant for which the Administrator has established a national ambient air quality standard, and</i></li> <li><i>(ii) the submission, upon request, of data related to such air quality modeling to the Administrator;</i></li> </ul>	<p><u>Oregon Revised Statutes:</u></p> <p>ORS 468.020 Rules and Standards. Requires public hearing on any proposed rule or standard prior to adoption</p> <p>ORS 468.035 (b) Functions of department. May conduct studies, investigations, etc. to determine air quality.</p> <p><u>Oregon Administrative Rules:</u></p> <p>OAR 340-224-0250 Requirements for Sources in Nonattainment Areas</p> <p>OAR 340-225 Air Quality Analysis Requirements (includes modeling).</p> <ul style="list-style-type: none"> <li>- 0040 Air Quality Models Refers to modeled estimates of ambient concentrations.</li> <li>- 0045 Requirements for Analysis in Maintenance Areas</li> <li>- 0050 Requirements for Analysis in PSD Class II and Class III Areas</li> <li>- 0060 Requirements for Demonstrating Compliance with Standards and Increments in PSD Class I Areas</li> <li>- 0070 Requirements for Demonstrating Compliance with AQRV Protection</li> </ul>

# Attachment 1: Infrastructure SIP Submittal

## CAA section 110(a)(2)(A)-(M) Requirements Checklist

Section 110(a) Element	Summary of Element	How Addressed
<p>§110(a)(2)(L) Major Stationary source permitting fees</p>	<p><i>Require the owner or operator of each major stationary source to pay to the permitting authority, as a condition of any permit required under this Act, a fee sufficient to cover</i></p> <p><i>(i) the reasonable costs of reviewing and acting upon any application for such a permit, and</i></p> <p><i>(ii) if the owner or operator receives a permit for such source, the reasonable costs of implementing and enforcing the terms and conditions of any such permit (not including any court costs or other costs associated with any enforcement action), until such fee requirement is superseded with respect to such sources by the Administrator's approval of a fee program under title V;</i></p>	<p><u>Oregon Revised Statutes:</u></p> <p>ORS 468 Environmental Quality Generally; Public Health and Safety; General Administration</p> <p>ORS 468.020 Rules and Standards. Requires public hearing on any proposed rule or standard prior to adoption</p> <p>ORS 468.065 Issuance of Permits: Content; Fees; use. Commission may establish a schedule of fees for permits based upon cost of filing &amp; investigating application, issuing or denying permit, carrying out Title V requirements and determining compliance.</p> <p>ORS 468A Air Quality, Public Health and Safety, Air Pollution Control</p> <p>ORS 468A.040 Permits; Rules. Provides that the EQC may require permits for air contamination sources, type of air contaminant, or specific areas of the State.</p> <p><u>Oregon Administrative Rules:</u></p> <p>OAR 340-216 Air contaminant Discharge Permits- Requires payment of permit fees.</p> <ul style="list-style-type: none"> <li>- 0020 (8020 Table 2) ACDP Fee Schedule</li> <li>- 0090 (8010 Table 1) Sources Subject to ACDP and Fees</li> </ul>
<p>§110(a)(2)(M) Consultation/Participation by affected local entities</p>	<p><i>Provide for consultation and participation by local political subdivisions affected by the plan.</i></p>	<p><u>Oregon Revised Statutes:</u></p> <p>ORS 468 Environmental Quality Generally; Public Health and Safety; General Administration</p> <p>ORS 468.020 Rules and Standards. Requires public hearing on any proposed rule or standard prior to adoption</p>

# Attachment 1: Infrastructure SIP Submittal

## CAA section 110(a)(2)(A)-(M) Requirements Checklist

Section 110(a) Element	Summary of Element	How Addressed
		<p>ORS 468A Air Quality, Public Health and Safety, Air Pollution Control</p> <p>ORS 468A.025 Air Purity Standards; Air Quality Standards; Treatment and Control of Emissions; Rules. Requires controls necessary to achieve ambient air quality standards and prevent significant impairment of visibility.</p> <p>ORS 468.035 (a, c, f-g) Functions of department</p> <ul style="list-style-type: none"> <li>-a. encourages voluntary cooperation with local govt. and others in restoring &amp; preserving AQ</li> <li>-c. Shall advise, consult, and cooperate with state &amp; federal agencies and political subdivisions in AQ control matters</li> <li>-f. Shall provide advisory technical consultation and services to local &amp; state agencies</li> <li>-g. Shall develop &amp; conduct demonstration programs with local govt.</li> </ul> <p>ORS 468A.010 (1) b &amp; c Policy. Calls for joint responsibility for “a coordinated statewide program of air quality control and to allocate [responsibility] between the state and the units of local government.”</p> <p>ORS 468A.035 General Comprehensive Plan. Requires DEQ to develop a general comprehensive plan for the control or abatement of air pollution.</p> <p>ORS 468A.040 Permits; Rules. Provides that the EQC may require permits for air contamination sources, type of air contaminant, or specific areas of the State.</p> <p>ORS 468A.055 Notice Prior to Construction of New Sources; Order Authorizing or Prohibiting Construction; Effect of No Order; Appeal</p>

# Attachment 1: Infrastructure SIP Submittal

## CAA section 110(a)(2)(A)-(M) Requirements Checklist

Section 110(a) Element	Summary of Element	How Addressed
		<p>ORS 468A.070 Measurement and Testing of Contamination Sources; Rules</p> <p>ORS 468A.100-180 Regional Air Quality Control Authorities. Describes the establishment, role, and function of Regional Authorities.</p> <p><u>Oregon Administrative Rules:</u></p> <p>OAR 340-200 General Air Pollution Procedures and Definitions</p> <ul style="list-style-type: none"> <li>- 0010 Specifies that Lane Regional Air Protection Agency (LRAPA) has authority in Lane County.</li> <li>- 0020 defines a “Regional Agency”.</li> <li>- 0040 describes inclusion of the regional agency’s actions into the SIP.</li> </ul> <p>OAR 340-204 Designation of Air Quality Areas. Includes Designation of Control Areas within Lane County.</p> <p>OAR 340-216 Air Contaminant Discharge Permits. Relating to ACDP includes authorities for LRAPA and inclusion in the SIP.</p>

# Oregon State Implementation Plan Revision Addressing the Interstate Transport of Ozone (O<sub>3</sub>)

Clean Air Act Section 110(a)(2)(D)(i)(I)

Submitted to: U.S. Environmental Protection Agency, Region 10

By: Oregon Department of Environmental Quality

October 2018

**Air Quality Division  
Air Planning**  
700 NE Multnomah St.  
Suite 600  
Portland, OR 97232  
Phone: 503-229-5696  
800-452-4011  
Fax: 503-229-6762  
Contact: [Karen Williams](mailto:Karen.Williams@deq.or.gov)  
[www.oregon.gov/DEQ](http://www.oregon.gov/DEQ)

DEQ is a leader in restoring, maintaining and enhancing the quality of Oregon's air, land and water.



State of Oregon  
Department of  
Environmental  
Quality

This report prepared by:

Oregon Department of Environmental Quality  
700 NE Multnomah Street, Suite 600  
Portland, OR 97232  
1-800-452-4011  
[www.oregon.gov/deq](http://www.oregon.gov/deq)

Contact:  
Karen Font Williams  
503-229-5519

Documents can be provided upon request in an alternate format for individuals with disabilities or in a language other than English for people with limited English skills. To request a document in another format or language, call DEQ in Portland at 503-229-5696, or toll-free in Oregon at 1-800-452-4011, ext. 5696; or email [deqinfo@deq.state.or.us](mailto:deqinfo@deq.state.or.us).

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# Executive Summary

This report presents the Oregon Department of Environmental Quality's submission of a State Implementation Plan element required by the "good neighbor" provision of Section 110(a)(2)(D)(i)(I) of the Clean Air Act that is due within three years from a U.S. Environmental Protection Agency revision of a National Ambient Air Quality Standard. In 2015, EPA revised the primary and secondary ozone NAAQS to 70 ppb. DEQ is required to submit a SIP by October 1, 2018, that prohibits any source or other emissions activity within Oregon from emitting air pollutants in amounts that will contribute significantly to nonattainment or interfere with maintenance of the 2015 ozone NAAQS in another state.

To assist states in completing their interstate transport submissions, EPA completed modeling to identify receptor sites that are projected to have problems attaining or maintaining the NAAQS in 2023. EPA then projected each state's contribution to those downwind receptors. The model's projected and apportioned contributions to 2023 ozone concentrations were based on emissions inventory and meteorological data from 2011. EPA has indicated that the states may use this modeling to support their interstate transport SIP submittals and that EPA accepts 2023 as a projection year. DEQ finds EPA's modeling methodology and assumptions result in projections for Oregon that indicate no significant impact to a downwind monitor of interest.

EPA's modeling shows that Oregon's 2023 projected maximum ozone contribution to a downwind receptor site is 0.57 parts per billion. This concentration does not exceed a significant threshold of 0.70 ppb. DEQ reviewed National Emissions Inventory data back to 2008 to discern nitrogen oxide and volatile organic compound emission trends in Oregon over that time period. DEQ found that NO<sub>x</sub> emissions are trending downward. VOC emissions, with the influence of wildfires subtracted, are also trending downward. DEQ's ambient ozone and NO<sub>2</sub> monitoring does not indicate upward trends through 2016, in spite of increasing population and vehicle miles traveled, and on April 30, 2018, EPA classified the entire state of Oregon as attainment/unclassifiable with respect to the 2015 ozone NAAQS.

DEQ concludes that emissions from Oregon sources do not contribute significantly to downwind nonattainment or maintenance receptors in other states. DEQ also concludes that current control strategies appear adequate to prevent interstate transport of ozone to other states.

# 1. Introduction

The purpose of this report is to present the Oregon Department of Environmental Quality's submission of a State Implementation Plan element required by the "good neighbor" provision of Section 110(a) of the Clean Air Act<sup>1</sup> when the U.S. Environmental Protection Agency revises a National Ambient Air Quality Standard. In 2015, EPA revised the primary and secondary ozone NAAQS to 70 ppb<sup>2</sup>. Within three years from the NAAQS revision, Oregon must demonstrate that its air quality program is adequate to prevent interstate transport of pollutant emissions that contribute significantly to nonattainment or interfere with neighboring states' ozone NAAQS maintenance.

## 1.1 Background

DEQ adopted the 2015 ozone NAAQS and submitted that revision to EPA with a Regional Haze Progress Report in July 2017. EPA approved that SIP submission, among other submissions, on May 24, 2018<sup>3</sup>. On April 30, 2018, EPA designated all areas of Oregon as "attainment/unclassifiable" for ozone<sup>4</sup> based on DEQ's annually submitted monitoring data.<sup>5</sup>

To assist states in completing their interstate transport submissions, in January 2017, EPA completed modeling that estimates each state's current and future ozone contribution to downwind receptors that are projected to have problems attaining or maintaining the NAAQS in 2023<sup>6</sup>. In two memos released in October 2017 and March 2018<sup>7</sup>, EPA provided states guidance on applying the modeling results and referenced a threshold of 1% of the ozone NAAQS (0.70 parts per billion) over which a state, in prior EPA rulemakings,<sup>8</sup> had been deemed to be contributing significantly to a downwind state's nonattainment or maintenance problems. EPA's March 2018 guidance memo also references EPA's four-step framework to address the requirements of the good neighbor provision:

1. Identify downwind air quality problems;
2. Identify upwind states that contribute enough to those downwind air quality problems to warrant further review and analysis;
3. Identify the emissions reductions necessary (if any), considering cost and air quality factors, to prevent an identified upwind state from contributing significantly to those downwind air quality problems;
4. Adopt permanent and enforceable measures needed to achieve those emissions reductions.

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<sup>1</sup> Clean Air Act §110(a)(2)(D)(i)(I), 42 U.S.C. §7410

<sup>2</sup> National Ambient Air Quality Standards for Ozone Final Rule, 80 FR 65292 (October 26, 2015)

<sup>3</sup> Air Plan Approval; OR; Infrastructure Requirements for the 2010 Nitrogen Dioxide, 2010 Sulfur Dioxide, and 2012 Fine Particulate Matter Standards (May 24, 2018), 83 FR 24034.

<sup>4</sup> Final rules: 83 FR 25776 (Oregon table p. 25827) and 82 FR 54232 (Oregon table p. 54270)

<sup>5</sup> Oregon Air Quality Annual Report (2016):

<http://www.oregon.gov/deq/FilterDocs/OrAirQualityAnnualReport2016.pdf>

<sup>6</sup> EPA chose 2023 as the analytic year to align with anticipated attainment year for moderate ozone nonattainment areas.

<sup>7</sup> Supplemental Information on the Interstate Transport State Implementation Plan Submissions for the 2008 Ozone National Ambient Air Quality Standards under Clean Air Act Section 110(a)(2)(D)(i)(I) (October, 27, 2017) and Information on the Interstate Transport State Implementation Plan Submissions for the 2015 Ozone National Ambient Air Quality Standards under Clean Air Act Section 110(a)(2)(D)(i)(I) (March 27, 2018).

<sup>8</sup> Finding of Significant Contribution and Rulemaking for Certain States in the Ozone Transport Assessment Group Region for Purposes of Reducing Regional Transport of Ozone (October 27, 1998), 63 FR 57356; Clean Air Interstate Rule (CAIR) Final Rule (May 12, 2005), 70 FR 25162; Cross-State Air Pollution Final Rule (CSAPR) (August 8, 2011), 76 FR 48208; CSAPR Update for the 2008 Ozone NAAQS Final Rule (October 26, 2016), 81 FR 74504.

## 1.2 EPA Analysis Overview

To assist states in completing framework steps 1 and 2, EPA used an air quality model<sup>9</sup> that predicted 2023 interstate ozone contributions to nonattainment and maintenance areas.<sup>10</sup> EPA modeled predicted emissions within states and across state lines for the year 2023, based on emissions inventory and meteorological data from 2011. EPA selected 2023 as the analytic year in the model primarily because in that year, EPA anticipates attainment for moderate ozone nonattainment areas.<sup>11</sup> Several eastern and Midwest states are affected by litigation, which EPA also factored into the choice of 2023.

EPA used the CAMx v6.4 model to project the 2023 future year design values, following EPA's 2014 modeling guidance.<sup>12</sup> The guidance recommends using model predictions from a 3 x 3 array of 12 km grid cells surrounding a monitoring site. EPA modeled contributions (ozone source apportionment) from emissions in each state to ozone concentrations at the projected 2023 nonattainment and maintenance receptors. The model's projected and apportioned contributions to 2023 ozone concentrations were based on emissions inventory and meteorological data from 2011.

EPA conducted an operational model performance evaluation to examine the ability of the CAMx modeling system to simulate 2011 ozone measured concentrations. This evaluation graphically and statistically compared model predictions to observations. The evaluation, performed with CAMx v6.32, showed the 2011 model performance statistics to be within or close to ranges found in other recent peer-reviewed applications, and correspond closely to observed 8-hour daily maximum ozone concentrations' magnitude, temporal fluctuations, and geographic differences. EPA documented this work in the "Air Quality Modeling Technical Support Document for the 2015 Ozone NAAQS" (Dec. 2016). EPA's base emissions inventory data, the projected 2023 emissions, and EPA's modeling methodology were subject to a public comment period that ended April 6, 2017, and EPA modified the modeling platform and projected emissions in response to comments received.<sup>13</sup>

DEQ considers the 2011 base year emissions inventory used in the modeling to be representative, and also finds the projected 2023 emissions reasonable for Oregon. For example, in projecting 2023 emissions, EPA's emissions inventory took into account state rules and announced shutdowns of electric generating units,<sup>14</sup> such as Oregon's 2020 shutdown of the Boardman power plant, announced in 2010<sup>15</sup>. EPA's model also used emissions inventory projections that considered states, such as Oregon, that have adopted California's Low Emission Vehicles III program.<sup>16</sup> Based on DEQ's review of the technical supporting documents, the results of the model performance evaluation and the modifications made in response to public comment, DEQ finds that the modeled data provided by EPA in the March 27, 2018, memorandum accurately simulate likely Oregon ozone contributions to downwind receptors.

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<sup>9</sup> Comprehensive Air Quality Model with Extensions (CAMx v6.40) User's Guide, <http://www.camx.com/>, Ramboll Environ (December 2016).

<sup>10</sup> Notice of Data Availability – Preliminary Interstate Ozone Transport Modeling Data for the 2015 Ozone NAAQS (January 2017).

<sup>11</sup> Supplemental Information on the Interstate Transport State Implementation Plan Submissions for the 2008 Ozone National Ambient Air Quality Standards under Clean Air Act Section 110(a)(2)(D)(i)(I) (October, 27, 2017) p. 3.

<sup>12</sup> Draft Modeling Guidance for Demonstrating Attainment of Air Quality Goals for Ozone, PM2.5 and Regional Haze (December 3, 2014).

<sup>13</sup> Technical Support Document: Additional Updates to Emissions Inventories for the Version 6.3, 2011 Emissions Modeling Platform for the Year 2023, October 2017. Available at <https://www.epa.gov/air-emissions-modeling/additional-updates-2011-and-2023-emissions-version-63-platform-technical>.

<sup>14</sup> Technical Support Document: Updates to Emissions Inventories for the Version 6.3, 2011 Emissions Modeling Platform for the Year 2023, December 2016, p. 33. Available at: [https://www.epa.gov/sites/production/files/2017-01/documents/2011v6.3\\_2023\\_update\\_emismod\\_tsd\\_dec2016\\_002.pdf](https://www.epa.gov/sites/production/files/2017-01/documents/2011v6.3_2023_update_emismod_tsd_dec2016_002.pdf)

<sup>15</sup> PGE Boardman Site Summary. Available at: <https://www.oregon.gov/deq/Programs/Pages/PGE-Boardman.aspx>

<sup>16</sup> More About Low Emission Vehicle Regulations. Available at: <https://www.oregon.gov/deq/aq/programs/Pages/ORLEV-More.aspx>

## 2. Downwind Receptors

DEQ relies on EPA’s modeling to identify downwind nonattainment and maintenance receptors that may be impacted by emissions from sources in Oregon. EPA’s model predicts that Oregon ozone contributions in 2023 could be received by several nonattainment and maintenance receptors in downwind states, most in California. Tables listing all potential downwind receptors from Oregon, as EPA presented in the March 2018 memo, are included in Appendix A.

## 3. Oregon Contribution to Neighboring States

At downwind nonattainment and maintenance receptor sites, Oregon modeled contributions in 2023 range from 0.01 to 0.57 ppb. The ten sites with highest contributions from Oregon are included in Table 1. EPA has referenced 0.70 ppb as a threshold to indicate significant contribution to downwind states’ nonattainment or maintenance receptors. EPA’s modeling shows that Oregon is not projected to contribute significantly to nonattainment and maintenance areas downwind, with the greatest contribution being 0.57 ppb. Because Oregon’s projected emissions are not deemed to contribute significantly to downwind receptors, DEQ finds that no further analysis is warranted.

Table 1: Nonattainment and maintenance receptors with the 10 highest predicted Oregon ozone contributions.

Site ID	County	2023 Ozone Concentration (ppb) from OR
60670012	Sacramento	0.57
60990006	Stanislaus	0.47
60675003	Sacramento	0.45
60470003	Merced	0.42
61072010	Tulare	0.40
60290232	Kern	0.39
60290007	Kern	0.37
60190242	Fresno	0.35
60290008	Kern	0.34
60290014	Kern	0.34

## 4. Air Quality Trends and Maintenance Programs

In addition to referencing EPA’s modeling of Oregon’s 2023 emissions, DEQ reviewed NOx and VOC trends based on three periods of National Emissions Inventory<sup>17</sup> data from Oregon: 2008, 2011 and 2014. DEQ finds that total NOx emissions across all sectors in Oregon have decreased steadily since 2008, from approximately 179,670 tons to 156,590 tons. The decrease would have been larger if not for an approximately 9,000 ton increase in NOx emissions from wildfires from the 2011 to the 2014 EI. Similarly, total VOC emissions in Oregon decreased from approximately 1.69 million tons in the 2008 NEI to 1.62 million tons in the 2014 NEI. Again, the VOC decrease was dampened by wildfire contribution of more than 100,000 tons from the 2011 NEI to the 2014 NEI. Tables 2 and 3 show the NOx and VOC emissions, respectively, by sector from Oregon sources.

<sup>17</sup> National Emissions Inventory. Available at: <https://www.epa.gov/air-emissions-inventories/national-emissions-inventory-nei>

Table 2: Oregon NOx emissions by sector, 2008 – 2014 National Emissions Inventory.

POLLUTANT	SECTOR	2008 Tons	2011 Tons	2014 Tons
Nitrogen Oxides	Biogenics - Vegetation and Soil	11,987.5	12,188.3	11,837.9
Nitrogen Oxides	Bulk Gasoline Terminals	3.4	3.0	3.9
Nitrogen Oxides	Commercial Cooking	0.0		0.0
Nitrogen Oxides	Fires - Agricultural Field Burning	78.4	255.7	295.8
Nitrogen Oxides	Fires - Prescribed Fires	5,874.9	9,716.7	4,906.8
Nitrogen Oxides	Fires - Wildfires	3,419.8	4,505.2	13,924.6
Nitrogen Oxides	Fuel Comb - Comm/Institutional - Biomass	45.1	304.0	303.8
Nitrogen Oxides	Fuel Comb - Comm/Institutional - Coal		0.0	0.0
Nitrogen Oxides	Fuel Comb - Comm/Institutional - Natural Gas	494.1	1,710.0	1,844.8
Nitrogen Oxides	Fuel Comb - Comm/Institutional - Oil	17.8	1,177.2	113.9
Nitrogen Oxides	Fuel Comb - Comm/Institutional - Other	2.0	84.2	84.1
Nitrogen Oxides	Fuel Comb - Electric Generation - Biomass		134.5	142.1
Nitrogen Oxides	Fuel Comb - Electric Generation - Coal	8,695.0	4,048.0	3,231.0
Nitrogen Oxides	Fuel Comb - Electric Generation - Natural Gas	1,447.2	907.2	970.1
Nitrogen Oxides	Fuel Comb - Electric Generation - Oil	123.0	46.0	0.0
Nitrogen Oxides	Fuel Comb - Electric Generation - Other	21.7	116.3	167.6
Nitrogen Oxides	Fuel Comb - Industrial Boilers, ICEs - Biomass	1,490.2	5,292.3	3,799.3
Nitrogen Oxides	Fuel Comb - Industrial Boilers, ICEs - Coal	0.0	393.9	448.8
Nitrogen Oxides	Fuel Comb - Industrial Boilers, ICEs - Natural Gas	1,822.9	3,985.1	3,487.6
Nitrogen Oxides	Fuel Comb - Industrial Boilers, ICEs - Oil	216.5	1,161.6	774.7
Nitrogen Oxides	Fuel Comb - Industrial Boilers, ICEs - Other	11.0	216.9	165.3
Nitrogen Oxides	Fuel Comb - Residential - Natural Gas	1,929.1	2,106.5	1,935.7
Nitrogen Oxides	Fuel Comb - Residential - Oil	264.2	233.4	120.6
Nitrogen Oxides	Fuel Comb - Residential - Other	155.2	231.5	177.8
Nitrogen Oxides	Fuel Comb - Residential - Wood	1,546.4	1,741.8	668.5
Nitrogen Oxides	Industrial Processes - Cement Manuf		969.0	1,279.0
Nitrogen Oxides	Industrial Processes - Chemical Manuf	349.0	387.3	245.5
Nitrogen Oxides	Industrial Processes - Ferrous Metals	553.6	420.0	367.5
Nitrogen Oxides	Industrial Processes - Mining	0.8	0.6	0.0
Nitrogen Oxides	Industrial Processes - NEC	737.5	616.3	592.2
Nitrogen Oxides	Industrial Processes - Non-ferrous Metals	43.9	61.2	67.2
Nitrogen Oxides	Industrial Processes - Oil & Gas Production		40.8	32.7
Nitrogen Oxides	Industrial Processes - Petroleum Refineries	14.6	10.1	
Nitrogen Oxides	Industrial Processes - Pulp & Paper	3,364.6	2,587.4	2,217.3
Nitrogen Oxides	Industrial Processes - Storage and Transfer	24.4	3.0	1.0
Nitrogen Oxides	Miscellaneous Non-Industrial NEC	11.5	28.2	81.8
Nitrogen Oxides	Mobile - Aircraft	1,016.7	1,121.1	1,550.0
Nitrogen Oxides	Mobile - Commercial Marine Vessels	5,427.0	3,010.6	2,234.7
Nitrogen Oxides	Mobile - Locomotives	13,425.1	10,968.6	8,303.1
Nitrogen Oxides	Mobile - Non-Road Equipment - Diesel	17,805.6	15,832.2	13,308.4
Nitrogen Oxides	Mobile - Non-Road Equipment - Gasoline	3,275.9	3,393.9	3,191.0
Nitrogen Oxides	Mobile - Non-Road Equipment - Other	2,413.3	1,449.5	861.7
Nitrogen Oxides	Mobile - On-Road Diesel Heavy Duty Vehicles	36,968.6	25,764.2	19,772.0
Nitrogen Oxides	Mobile - On-Road Diesel Light Duty Vehicles	980.2	1,557.1	5,231.8
Nitrogen Oxides	Mobile - On-Road non-Diesel Heavy Duty Vehicles	3,893.7	628.1	484.5
Nitrogen Oxides	Mobile - On-Road non-Diesel Light Duty Vehicles	48,536.3	53,031.9	45,646.1
Nitrogen Oxides	Solvent - Graphic Arts		1.0	1.0
Nitrogen Oxides	Solvent - Industrial Surface Coating & Solvent Use	35.5	36.6	16.5
Nitrogen Oxides	Waste Disposal	1,152.0	1,044.5	1,700.9
	Total	179,675.2	173,522.4	156,590.7

Table 3: Oregon VOC emissions by sector, 2008 – 2014 National Emissions Inventory.

POLLUTANT	SECTOR	2008 Tons	2011 Tons	2014 Tons
Volatile Organic Compounds	Agriculture - Livestock Waste			731.8
Volatile Organic Compounds	Biogenics - Vegetation and Soil	1,296,968.5	913,055.1	1,109,626.8
Volatile Organic Compounds	Bulk Gasoline Terminals	98.2	2,110.4	281.5
Volatile Organic Compounds	Commercial Cooking	137.0	41.0	223.2
Volatile Organic Compounds	Fires - Agricultural Field Burning	176.4	593.2	705.5
Volatile Organic Compounds	Fires - Prescribed Fires	142,476.2	235,605.4	113,166.3
Volatile Organic Compounds	Fires - Wildfires	104,246.4	107,499.1	261,704.6
Volatile Organic Compounds	Fuel Comb - Comm/Institutional - Biomass	26.5	49.2	75.5
Volatile Organic Compounds	Fuel Comb - Comm/Institutional - Coal		0.0	0.0
Volatile Organic Compounds	Fuel Comb - Comm/Institutional - Natural Gas	8.6	71.4	80.4
Volatile Organic Compounds	Fuel Comb - Comm/Institutional - Oil	0.1	2.2	7.5
Volatile Organic Compounds	Fuel Comb - Comm/Institutional - Other		3.1	3.1
Volatile Organic Compounds	Fuel Comb - Electric Generation - Biomass		3.4	5.1
Volatile Organic Compounds	Fuel Comb - Electric Generation - Coal	71.5	59.6	55.6
Volatile Organic Compounds	Fuel Comb - Electric Generation - Natural Gas	277.6	112.0	159.4
Volatile Organic Compounds	Fuel Comb - Electric Generation - Oil	0.2	0.0	0.1
Volatile Organic Compounds	Fuel Comb - Electric Generation - Other	6.1	49.7	71.8
Volatile Organic Compounds	Fuel Comb - Industrial Boilers, ICEs - Biomass	262.1	416.2	311.9
Volatile Organic Compounds	Fuel Comb - Industrial Boilers, ICEs - Coal	0.0	1.8	2.0
Volatile Organic Compounds	Fuel Comb - Industrial Boilers, ICEs - Natural Gas	54.9	175.9	266.7
Volatile Organic Compounds	Fuel Comb - Industrial Boilers, ICEs - Oil	0.8	7.2	39.0
Volatile Organic Compounds	Fuel Comb - Industrial Boilers, ICEs - Other	3.0	15.7	16.9
Volatile Organic Compounds	Fuel Comb - Residential - Natural Gas	112.9	123.3	113.3
Volatile Organic Compounds	Fuel Comb - Residential - Oil	10.3	9.1	4.7
Volatile Organic Compounds	Fuel Comb - Residential - Other	6.0	8.5	6.9
Volatile Organic Compounds	Fuel Comb - Residential - Wood	15,172.7	16,783.1	7,290.3
Volatile Organic Compounds	Gas Stations	8,054.6	4,503.5	5,759.2
Volatile Organic Compounds	Industrial Processes - Cement Manuf	14.4	14.4	19.4
Volatile Organic Compounds	Industrial Processes - Chemical Manuf	55.1	154.7	47.1
Volatile Organic Compounds	Industrial Processes - Ferrous Metals	130.9	119.5	89.7
Volatile Organic Compounds	Industrial Processes - Mining	0.8	0.6	0.0
Volatile Organic Compounds	Industrial Processes - NEC	265.2	833.4	804.4
Volatile Organic Compounds	Industrial Processes - Non-ferrous Metals	441.1	277.1	294.1
Volatile Organic Compounds	Industrial Processes - Oil & Gas Production		53.3	43.7
Volatile Organic Compounds	Industrial Processes - Petroleum Refineries	44.8	33.0	11.8
Volatile Organic Compounds	Industrial Processes - Pulp & Paper	5,491.0	5,082.0	5,552.4
Volatile Organic Compounds	Industrial Processes - Storage and Transfer	895.7	1,198.3	1,004.9
Volatile Organic Compounds	Miscellaneous Non-Industrial NEC	2,958.3	2,760.1	897.6
Volatile Organic Compounds	Mobile - Aircraft	264.7	356.1	581.3
Volatile Organic Compounds	Mobile - Commercial Marine Vessels	181.8	68.9	56.5
Volatile Organic Compounds	Mobile - Locomotives	715.5	585.7	422.3
Volatile Organic Compounds	Mobile - Non-Road Equipment - Diesel	1,819.7	1,553.6	1,362.1
Volatile Organic Compounds	Mobile - Non-Road Equipment - Gasoline	30,856.3	27,195.7	22,148.6
Volatile Organic Compounds	Mobile - Non-Road Equipment - Other	615.4	355.2	193.0
Volatile Organic Compounds	Mobile - On-Road Diesel Heavy Duty Vehicles	2,409.3	1,985.4	1,441.8
Volatile Organic Compounds	Mobile - On-Road Diesel Light Duty Vehicles	146.6	647.9	2,027.3
Volatile Organic Compounds	Mobile - On-Road non-Diesel Heavy Duty Vehicles	2,509.7	281.2	249.0
Volatile Organic Compounds	Mobile - On-Road non-Diesel Light Duty Vehicles	37,753.3	39,560.7	34,413.8
Volatile Organic Compounds	Solvent - Consumer & Commercial Solvent Use	24,260.2	24,466.1	25,993.2
Volatile Organic Compounds	Solvent - Degreasing	3.8	2,540.0	2,430.2
Volatile Organic Compounds	Solvent - Dry Cleaning	855.8	5.6	5.0
Volatile Organic Compounds	Solvent - Graphic Arts	1.3	616.0	5,975.8
Volatile Organic Compounds	Solvent - Industrial Surface Coating & Solvent Use	982.1	6,121.4	4,746.3
Volatile Organic Compounds	Solvent - Non-Industrial Surface Coating	5,723.0	4,482.4	4,595.8
Volatile Organic Compounds	Waste Disposal	1,758.3	5,654.5	3,517.8
	Total	1,689,325	1,408,302	1,619,634

In addition to overall downward trending NO<sub>x</sub> and VOC emissions, DEQ finds that ozone and NO<sub>2</sub> ambient monitoring indicate relatively steady concentrations in recent years in spite of wildfires, population growth, higher than normal maximum and minimum temperatures in recent years<sup>18</sup> and an increase in vehicle miles traveled.<sup>19</sup> DEQ maintains an ambient monitoring network of more than 30 stations statewide and has most recently summarized monitoring data in the 2016 Air Quality Annual Report.<sup>20</sup>

DEQ has monitored ozone at six locations in the cities of Bend, Eugene, Medford, Portland, Salem and Hermiston since the mid-1990s and recently installed an additional station in The Dalles. Figure 1 is excerpted from DEQ's 2016 annual report and shows that ozone concentrations – calculated as a three year average of the fourth highest daily maximum – overall have trended downward since the 1990s. DEQ monitors nitrogen dioxide at two locations in the cities of Portland and Tualatin, along the Interstate 5 corridor. Figure 2 illustrates that NO<sub>2</sub> concentrations appear to be relatively steady with no discernable trend in the past six years. DEQ concludes that control strategies are adequate to minimize transport of NO<sub>x</sub> to downwind states.

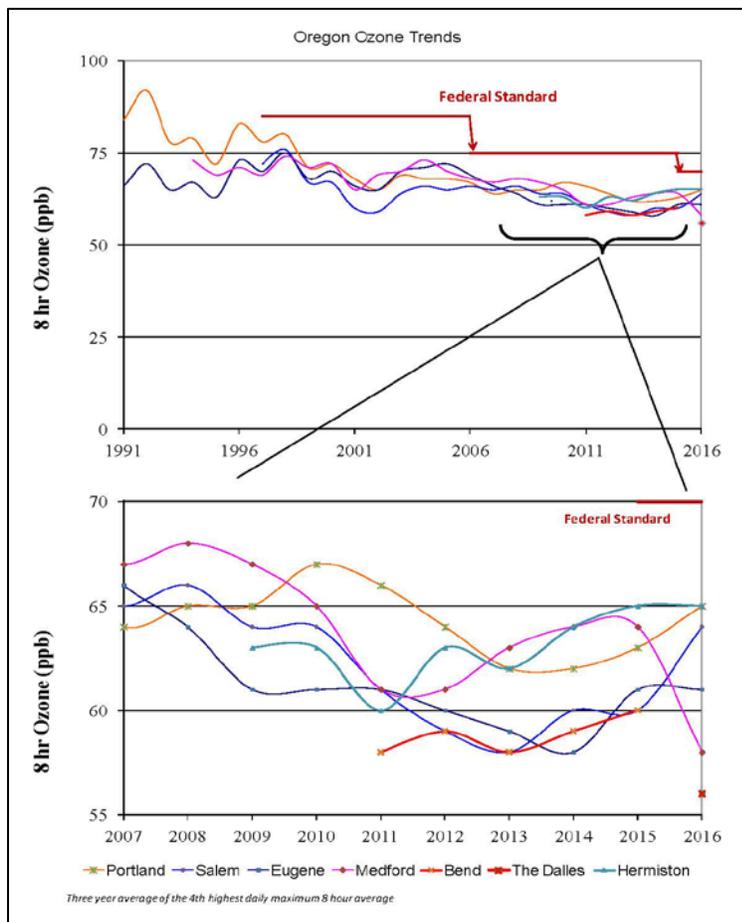


Figure 1: Ozone trends 2007 - 2016 in Oregon, from DEQ 2016 Air Quality Annual Report.

<sup>18</sup> National Weather Service: <https://www.wrh.noaa.gov/pqr/pdxclimate/pg13.pdf>, <https://www.wrh.noaa.gov/pqr/pdxclimate/pg34.pdf>,

<sup>19</sup> Oregon Dept. of Transportation: [https://www.oregon.gov/ODOT/Data/Documents/VMT\\_Statewide\\_Graph.pdf](https://www.oregon.gov/ODOT/Data/Documents/VMT_Statewide_Graph.pdf)

<sup>20</sup> <https://www.oregon.gov/deq/FilterDocs/OrAirQualityAnnualReport2016.pdf>

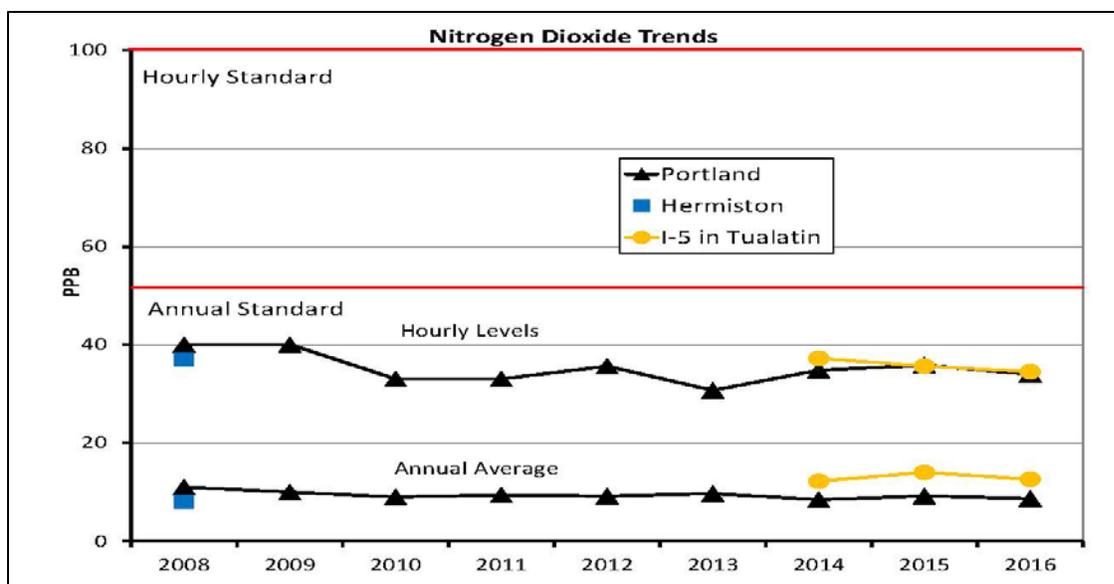


Figure 2: Nitrogen dioxide trends 2008 – 2016 in Oregon, from DEQ 2016 Air Quality Annual Report.

To maintain compliance with the ozone NAAQS and minimize potential pollutant transport to neighboring states, DEQ will continue implementing control strategies such as those referenced in the 2007 Portland Air Quality Area Ozone Maintenance Plan<sup>21</sup>:

- Motor Vehicle Inspection Program (OAR 340-256-0300 through 0470);
- Emission Standards for VOC Point Sources (Reasonably Available Control Technology) for existing major industrial facilities (OAR 340-232-0010 through 0230);
- New Source Review Program for new and expanding major industrial facilities (OAR 340-224-0010 through 0100 and 340-225-0010 through 0090);
- Barge Loading Rules and Stage I vapor recovery systems that control VOCs from gasoline delivery operations (included within OAR 340-232);
- Aerosol Paint Rules that lower VOC content from spray paints sold in the Portland area (OAR 340-242-0700 through 0750);
- Motor Vehicle Refinishing Rules that require low-emitting painting methods at autobody shops (OAR 340-242-0600 through 0630); and
- Public education and outreach that encourages people to voluntarily reduce emissions, such as not mowing lawns and driving less on Clean Air Action Days (now called Air Pollution Advisories).

In the first half of 2019, DEQ intends to update rules pertaining to the Vehicle Inspection and Maintenance program, an important control strategy for reducing VOCs, NO<sub>x</sub>, and toxic pollutants. DEQ will be modeling<sup>22</sup> VOC, NO<sub>x</sub> and toxics emissions prevented with the current I/M program.

Throughout 2018, DEQ will be engaged in a rulemaking pertaining to reducing air toxics risk from stationary sources. DEQ plans to present rules to the Oregon Environmental Quality Commission in November 2018. Stationary, permitted sources will be required to report on toxics emissions and use a tiered screening process to assess their emissions for risk above action levels. DEQ will require certain

<sup>21</sup> Portland Air Quality Area Ozone Maintenance Plan (2007). Available at: <https://www.oregon.gov/deq/aq/Pages/Maintenance-Areas.aspx>

<sup>22</sup> As calculated with MOVES (Motor Vehicle Emissions Simulator), MOVES 2014 and MOVES2014a Technical Guidance, EPA-420-B-15-093, November 2015.

facilities to reduce toxic emissions. These rules will require reporting on about 600 toxic air pollutants and provide risk based concentrations to assess and manage risk from about 230 pollutants, including VOCs. Maintenance of current regulations and anticipated adoption of the updated rules identified above will assure that Oregon's ozone precursor emissions will continue to decline and not increase over the projected inventory.

## **5. Conclusions**

DEQ concludes that Oregon emissions from Oregon sources do not contribute significantly to downwind nonattainment or maintenance receptors in other states. EPA's CAMx model projects 2023 ozone concentrations from Oregon to be less than a significant level of 0.70 ppb at downwind receptors in neighboring states. DEQ has relied on EPA model results to support this conclusion, as well as data from emission inventories and DEQ's ambient air monitoring network. Emission inventories indicate downward trends in VOC and NOx emissions, even with influence from wildfires in the 2014 emission inventory. DEQ's monitoring data shows NO<sub>2</sub> concentrations monitored in high volume traffic corridors to be relatively steady in spite of increased population and vehicle miles traveled. Oregon will continue implementing existing control strategies as described in 2007 Portland Ozone Maintenance Plan, such as the vehicle inspection program and emissions standards for VOC sources. Oregon's current control strategies appear adequate to prevent significant interstate transport of ozone to neighboring states.

# Appendix A

Appendix A Figure 1: Ozone concentrations (ppb) outside California attributed to interstate transportation as calculated by EPA CAMx model. From EPA memo, Information on the Interstate Transport State Implementation Plan Submissions for the 2015 Ozone National Ambient Air Quality Standards under Clean Air Act Section 110(a)(2)(D)(i)(I), March 27, 2018.

Contributions to 2023 Nonattainment and Maintenance Sites Outside of California (Part 2)

Site ID	County	State	2023en	2023en																								
			Average	Maximum	NE	NV	NH	NJ	NM	NY	NC	ND	OH	OK	OR	PA	RI	SC	SD	TN	TX	UT	VT	VA	WA	WV	WI	WY
40130019	Maricopa	AZ	69.3	71.4	0.00	0.09	0.00	0.00	0.09	0.00	0.00	0.00	0.00	0.02	0.05	0.00	0.00	0.00	0.00	0.00	0.22	0.06	0.00	0.00	0.02	0.00	0.00	0.01
40131004	Maricopa	AZ	69.8	71.0	0.00	0.14	0.00	0.00	0.04	0.00	0.00	0.00	0.00	0.01	0.06	0.00	0.00	0.00	0.00	0.00	0.11	0.06	0.00	0.00	0.03	0.00	0.00	0.00
80050002	Arapahoe	CO	69.3	71.3	0.34	0.33	0.00	0.00	0.22	0.00	0.00	0.00	0.00	0.12	0.11	0.00	0.00	0.00	0.02	0.00	0.30	1.23	0.00	0.00	0.04	0.00	0.00	1.04
80350004	Douglas	CO	71.1	73.2	0.32	0.32	0.00	0.00	0.22	0.00	0.00	0.00	0.00	0.12	0.10	0.00	0.00	0.00	0.02	0.00	0.36	1.08	0.00	0.00	0.04	0.00	0.00	1.00
80590006	Jefferson	CO	71.3	73.7	0.41	0.31	0.00	0.00	0.70	0.00	0.00	0.00	0.00	0.24	0.10	0.00	0.00	0.00	0.02	0.00	1.02	0.83	0.00	0.00	0.04	0.00	0.00	0.81
80590011	Jefferson	CO	70.9	73.9	0.36	0.38	0.00	0.00	0.38	0.00	0.00	0.00	0.00	0.18	0.10	0.00	0.00	0.00	0.02	0.00	0.94	1.04	0.00	0.00	0.03	0.00	0.00	1.03
80690011	Larimer	CO	71.2	73.0	0.25	0.37	0.00	0.00	0.52	0.00	0.00	0.00	0.00	0.05	0.10	0.00	0.00	0.00	0.03	0.00	0.40	1.05	0.00	0.00	0.10	0.00	0.00	0.88
81230009	Weld	CO	70.2	71.4	0.27	0.24	0.00	0.00	0.77	0.00	0.00	0.00	0.00	0.08	0.04	0.00	0.00	0.00	0.03	0.00	1.05	0.54	0.00	0.00	0.05	0.00	0.00	0.58
90010017	Fairfield	CT	68.9	71.2	0.06	0.00	0.01	6.24	0.04	17.31	0.29	0.07	1.04	0.15	0.00	5.11	0.01	0.06	0.03	0.15	0.30	0.03	0.01	1.27	0.02	0.68	0.26	0.07
90013007	Fairfield	CT	71.0	75.0	0.07	0.01	0.02	6.94	0.06	14.12	0.40	0.07	1.84	0.21	0.00	6.32	0.02	0.11	0.02	0.31	0.44	0.04	0.01	1.51	0.01	1.10	0.24	0.08
90019003	Fairfield	CT	73.0	75.9	0.07	0.01	0.02	7.75	0.06	15.80	0.43	0.06	1.60	0.21	0.01	6.56	0.02	0.12	0.02	0.28	0.45	0.04	0.01	1.91	0.01	1.14	0.20	0.08
90099002	New Haven	CT	69.9	72.6	0.09	0.01	0.03	5.06	0.04	15.03	0.32	0.15	1.17	0.24	0.01	4.87	0.02	0.04	0.04	0.12	0.41	0.04	0.02	1.26	0.04	0.61	0.25	0.10
240251001	Harford	MD	70.9	73.3	0.13	0.01	0.00	0.07	0.09	0.16	0.42	0.07	2.77	0.35	0.02	4.32	0.00	0.11	0.04	0.48	0.74	0.05	0.00	5.05	0.04	2.78	0.24	0.12
260050003	Allegan	MI	69.0	71.7	0.16	0.02	0.00	0.00	0.16	0.00	0.05	0.09	0.19	1.31	0.01	0.05	0.00	0.04	0.05	0.65	2.39	0.06	0.00	0.04	0.05	0.11	1.95	0.12
261630019	Wayne	MI	69.0	71.0	0.17	0.03	0.00	0.01	0.08	0.06	0.20	0.12	3.81	0.62	0.05	0.18	0.00	0.05	0.04	0.27	1.12	0.09	0.00	0.16	0.07	0.23	1.08	0.18
360810124	Queens	NY	70.2	72.0	0.12	0.02	0.06	8.57	0.07	13.55	0.35	0.12	1.88	0.32	0.02	7.16	0.04	0.09	0.05	0.13	0.58	0.07	0.07	1.56	0.03	1.01	0.38	0.14
360850067	Richmond	NY	67.1	68.5	0.12	0.02	0.00	10.53	0.09	6.57	0.37	0.09	2.05	0.36	0.01	10.41	0.00	0.10	0.04	0.36	0.70	0.07	0.00	1.67	0.02	1.54	0.30	0.12
361030002	Suffolk	NY	74.0	75.5	0.12	0.02	0.01	8.88	0.06	18.11	0.23	0.20	1.76	0.34	0.03	6.86	0.00	0.05	0.05	0.22	0.60	0.07	0.02	0.99	0.06	0.81	0.25	0.14
480391004	Brazoria	TX	74.0	74.9	0.23	0.06	0.00	0.00	0.08	0.00	0.04	0.06	0.06	0.90	0.05	0.01	0.00	0.04	0.05	0.28	26.00	0.14	0.00	0.02	0.06	0.02	0.40	0.27
481210034	Denton	TX	69.7	72.0	0.15	0.04	0.00	0.00	0.13	0.01	0.09	0.03	0.08	1.23	0.03	0.04	0.00	0.09	0.03	0.14	26.69	0.10	0.00	0.05	0.05	0.04	0.08	0.25
482010024	Harris	TX	70.4	72.8	0.08	0.03	0.00	0.00	0.05	0.00	0.14	0.04	0.05	0.20	0.03	0.02	0.00	0.14	0.02	0.26	25.62	0.08	0.00	0.06	0.03	0.05	0.07	0.14
482011034	Harris	TX	70.8	71.6	0.16	0.03	0.00	0.00	0.04	0.00	0.09	0.04	0.05	0.68	0.02	0.01	0.00	0.10	0.03	0.09	25.66	0.07	0.00	0.03	0.02	0.03	0.22	0.15
482011039	Harris	TX	71.8	73.5	0.19	0.03	0.00	0.00	0.06	0.00	0.04	0.06	0.05	0.58	0.03	0.01	0.00	0.03	0.04	0.30	22.82	0.08	0.00	0.02	0.04	0.01	0.28	0.20
484392003	Tarrant	TX	72.5	74.8	0.30	0.04	0.00	0.00	0.14	0.01	0.09	0.05	0.10	1.71	0.05	0.05	0.00	0.08	0.07	0.15	27.64	0.15	0.00	0.05	0.09	0.05	0.13	0.28
550790085	Milwaukee	WI	71.2	73.0	0.06	0.01	0.00	0.00	0.08	0.02	0.04	0.23	0.87	0.76	0.02	0.33	0.00	0.02	0.03	0.31	1.22	0.04	0.00	0.12	0.09	0.59	13.39	0.09
551170006	Sheboygan	WI	72.8	75.1	0.06	0.03	0.00	0.00	0.14	0.02	0.04	0.10	1.10	0.95	0.04	0.41	0.00	0.02	0.02	0.31	1.65	0.06	0.00	0.10	0.07	0.64	9.09	0.12

Appendix A Figure 2: Ozone concentrations (ppb) in California attributed to interstate transportation as calculated by EPA CAMx model. From EPA memo, Information on the Interstate Transport State Implementation Plan Submissions for the 2015 Ozone National Ambient Air Quality Standards under Clean Air Act Section 110(a)(2)(D)(i)(I), March 27, 2018.

Contributions to 2023 Nonattainment and Maintenance Sites in California (Part 2)																											
Site ID	County	State	2023	2023																							
			Average	Maximum	NE	NV	NH	NJ	NM	NY	NC	ND	OH	OK	OR	PA	RI	SC	SD	TN	TX	UT	VT	VA	WA	WV	WI
60190007	Fresno	CA	79.2	79.4	0.00	0.51	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.29	0.00	0.00	0.00	0.00	0.03	0.08	0.00	0.00	0.05	0.00	0.00	0.01
60190011	Fresno	CA	78.6	81.2	0.00	0.44	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.27	0.00	0.00	0.00	0.00	0.03	0.09	0.00	0.00	0.05	0.00	0.00	0.01
60190242	Fresno	CA	79.4	82.2	0.00	0.64	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.35	0.00	0.00	0.00	0.00	0.03	0.10	0.00	0.00	0.07	0.00	0.00	0.01
60194001	Fresno	CA	73.3	74.4	0.00	0.27	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.31	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.07	0.00	0.00	0.00	
60195001	Fresno	CA	79.6	81.2	0.00	0.38	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.05	0.00	0.00	0.00	
60250005	Imperial	CA	73.3	74.6	0.00	0.09	0.00	0.00	0.12	0.00	0.00	0.00	0.00	0.03	0.05	0.00	0.00	0.00	0.00	0.20	0.05	0.00	0.02	0.00	0.00	0.04	
60251003	Imperial	CA	79.0	80.0	0.00	0.25	0.00	0.00	0.11	0.00	0.00	0.00	0.00	0.02	0.06	0.00	0.00	0.00	0.00	0.09	0.06	0.00	0.02	0.00	0.00	0.03	
60290007	Kern	CA	77.7	81.3	0.00	0.29	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.37	0.00	0.00	0.00	0.00	0.02	0.10	0.00	0.15	0.00	0.00	0.03	
60290008	Kern	CA	71.3	72.8	0.00	0.31	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.34	0.00	0.00	0.00	0.00	0.01	0.02	0.00	0.10	0.00	0.00	0.01	
60290014	Kern	CA	74.1	75.2	0.00	0.38	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.34	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.08	0.00	0.00	0.00	
60290232	Kern	CA	73.7	75.2	0.00	0.27	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.39	0.00	0.00	0.00	0.00	0.01	0.02	0.00	0.17	0.00	0.00	0.00	
60295002	Kern	CA	75.9	76.8	0.00	0.31	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.25	0.00	0.00	0.00	0.00	0.02	0.06	0.00	0.05	0.00	0.00	0.02	
60296001	Kern	CA	70.9	72.4	0.00	0.58	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.26	0.00	0.00	0.00	0.00	0.01	0.02	0.00	0.02	0.00	0.00	0.00	
60370002	Los Angeles	CA	73.3	75.1	0.00	0.12	0.00	0.00	0.05	0.00	0.00	0.00	0.00	0.01	0.13	0.00	0.00	0.00	0.00	0.16	0.03	0.00	0.04	0.00	0.00	0.01	
60370016	Los Angeles	CA	86.1	88.9	0.00	0.14	0.00	0.00	0.06	0.00	0.00	0.00	0.00	0.02	0.15	0.00	0.00	0.00	0.00	0.18	0.03	0.00	0.05	0.00	0.00	0.02	
60371201	Los Angeles	CA	79.8	79.8	0.00	0.17	0.00	0.00	0.06	0.00	0.00	0.00	0.00	0.01	0.10	0.00	0.00	0.00	0.00	0.13	0.09	0.00	0.05	0.00	0.00	0.03	
60371701	Los Angeles	CA	78.1	79.1	0.00	0.11	0.00	0.00	0.07	0.00	0.00	0.00	0.00	0.02	0.15	0.00	0.00	0.00	0.00	0.19	0.03	0.00	0.05	0.00	0.00	0.02	
60372005	Los Angeles	CA	72.3	74.6	0.00	0.08	0.00	0.00	0.08	0.00	0.00	0.00	0.00	0.02	0.10	0.00	0.00	0.00	0.00	0.21	0.06	0.00	0.04	0.00	0.00	0.02	
60376012	Los Angeles	CA	85.9	87.4	0.00	0.18	0.00	0.00	0.09	0.00	0.00	0.00	0.00	0.03	0.16	0.00	0.00	0.00	0.00	0.21	0.08	0.00	0.07	0.00	0.00	0.04	
60379033	Los Angeles	CA	76.3	77.2	0.00	0.15	0.00	0.00	0.06	0.00	0.00	0.00	0.00	0.02	0.19	0.00	0.00	0.00	0.00	0.15	0.04	0.00	0.07	0.00	0.00	0.02	
60392010	Madera	CA	72.1	72.9	0.00	0.65	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.34	0.00	0.00	0.00	0.00	0.01	0.12	0.00	0.06	0.00	0.00	0.02	
60470003	Merced	CA	69.9	71.0	0.00	0.39	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.42	0.00	0.00	0.00	0.00	0.00	0.00	0.07	0.00	0.00	0.00	0.00	
60650004	Riverside	CA	76.7	76.7	0.00	0.14	0.00	0.00	0.05	0.00	0.00	0.00	0.00	0.01	0.13	0.00	0.00	0.00	0.00	0.13	0.03	0.00	0.03	0.00	0.00	0.01	
60650012	Riverside	CA	83.6	85.1	0.00	0.24	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.15	0.00	0.00	0.00	0.00	0.03	0.02	0.00	0.08	0.00	0.00	0.00	
60651016	Riverside	CA	85.2	85.5	0.00	0.28	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.09	0.00	0.00	0.00	0.00	0.02	0.02	0.00	0.01	0.00	0.00	0.00	
60652002	Riverside	CA	72.4	73.0	0.00	0.18	0.00	0.00	0.06	0.00	0.00	0.00	0.00	0.04	0.07	0.00	0.00	0.00	0.00	0.22	0.04	0.00	0.02	0.00	0.00	0.02	
60655001	Riverside	CA	79.5	80.1	0.00	0.11	0.00	0.00	0.06	0.00	0.00	0.00	0.00	0.04	0.12	0.00	0.00	0.00	0.00	0.26	0.03	0.00	0.07	0.00	0.00	0.02	
60656001	Riverside	CA	78.3	81.6	0.00	0.19	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.10	0.00	0.00	0.00	0.00	0.04	0.07	0.00	0.02	0.00	0.00	0.02	
60658001	Riverside	CA	87.0	87.9	0.00	0.15	0.00	0.00	0.05	0.00	0.00	0.00	0.00	0.01	0.17	0.00	0.00	0.00	0.00	0.12	0.03	0.00	0.06	0.00	0.00	0.01	
60658005	Riverside	CA	83.2	84.4	0.00	0.14	0.00	0.00	0.05	0.00	0.00	0.00	0.00	0.01	0.17	0.00	0.00	0.00	0.00	0.11	0.03	0.00	0.06	0.00	0.00	0.01	
60659001	Riverside	CA	73.7	75.9	0.00	0.15	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.16	0.00	0.00	0.00	0.00	0.02	0.05	0.00	0.04	0.00	0.00	0.01	
60670012	Sacramento	CA	74.5	75.9	0.00	0.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.57	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.20	0.00	0.00	0.00	
60675003	Sacramento	CA	69.9	71.3	0.00	0.44	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.45	0.00	0.00	0.00	0.00	0.00	0.00	0.14	0.00	0.00	0.00	0.00	
60710005	San Bernardino	CA	96.2	98.1	0.00	0.25	0.00	0.00	0.03	0.00	0.00	0.00	0.00	0.02	0.20	0.00	0.00	0.00	0.00	0.13	0.03	0.00	0.07	0.00	0.00	0.01	
60710012	San Bernardino	CA	84.1	85.8	0.00	0.15	0.00	0.00	0.07	0.00	0.00	0.00	0.00	0.02	0.11	0.00	0.00	0.00	0.00	0.12	0.06	0.00	0.04	0.00	0.00	0.03	
60710306	San Bernardino	CA	76.2	77.4	0.00	0.06	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.14	0.00	0.00	0.00	0.00	0.04	0.01	0.00	0.04	0.00	0.00	0.00	
60711004	San Bernardino	CA	89.8	91.0	0.00	0.14	0.00	0.00	0.08	0.00	0.00	0.00	0.00	0.02	0.15	0.00	0.00	0.00	0.00	0.22	0.04	0.00	0.05	0.00	0.00	0.02	
60712002	San Bernardino	CA	93.1	95.0	0.00	0.16	0.00	0.00	0.03	0.00	0.00	0.00	0.00	0.01	0.23	0.00	0.00	0.00	0.00	0.13	0.01	0.00	0.08	0.00	0.00	0.00	
60714001	San Bernardino	CA	86.0	88.5	0.00	0.19	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.15	0.00	0.00	0.00	0.00	0.03	0.01	0.00	0.05	0.00	0.00	0.00	
60714003	San Bernardino	CA	94.1	95.8	0.00	0.21	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.01	0.25	0.00	0.00	0.00	0.00	0.12	0.08	0.00	0.15	0.00	0.00	0.01	
60719002	San Bernardino	CA	80.0	81.4	0.00	0.14	0.00	0.00	0.10	0.00	0.00	0.00	0.00	0.05	0.10	0.00	0.00	0.00	0.00	0.28	0.05	0.00	0.04	0.00	0.00	0.04	
60719004	San Bernardino	CA	88.4	88.7	0.00	0.20	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.01	0.23	0.00	0.00	0.00	0.00	0.11	0.07	0.00	0.14	0.00	0.00	0.01	
60990006	Stanislaus	CA	74.8	75.7	0.00	0.24	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.47	0.00	0.00	0.00	0.00	0.01	0.05	0.00	0.11	0.00	0.00	0.01	
61070006	Tulare	CA	69.1	71.9	0.00	0.05	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.11	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.03	0.00	0.00	0.00	
61070009	Tulare	CA	76.1	77.2	0.00	0.11	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.21	0.00	0.00	0.00	0.00	0.02	0.00	0.00	0.07	0.00	0.00	0.00	
61072002	Tulare	CA	68.9	71.4	0.00	0.21	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.32	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.16	0.00	0.00	0.00	
61072010	Tulare	CA	73.1	73.9	0.00	0.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.40	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.17	0.00	0.00	0.00	
61112002	Ventura	CA	70.5	72.2	0.00	0.18	0.00	0.00	0.05	0.00	0.00	0.00	0.00	0.02	0.16	0.00	0.00	0.00	0.00	0.13	0.08	0.00	0.08	0.00	0.00	0.03	