

State of Oregon

Department of Environmental Quality

Memorandum

**Date:** Dec. 7, 2015  
**To:** Environmental Quality Commission  
**From:** Dick Pedersen, Director  
**Subject:** Agenda item R, Informational item: Director's report  
Dec. 9-10, 2015, EQC meeting

**Willamette River report card**

On December 2, the Meyer Memorial Trust released the "report card" for the Willamette River. DEQ staff, in collaboration with state and national partners, helped develop the indicators and collect data used to create the report card.

Overall, the Willamette River scored a B-. The health of the river declines as it flows downstream, with both the upper and middle Willamette, essentially from Eugene to Newberg, scoring a B and the lower Willamette, from Newberg to the Columbia River, scoring a C+.

In 2014, the Meyer Memorial Trust, a Portland-based foundation with a strong interest in the river, brought together more than 20 university, agency, and technical experts to help create the first Willamette River report card. With support from the University of Maryland Center for Environmental Science, the team of experts identified key indicators of river health and the data needed to measure the status of each indicator.

The report card format is designed to help Oregonians understand river health in a simple and visually distinctive format. The goals of the project are to:

- Capture a current picture of river health against which to measure future changes
- Identify and analyze key indicators of river health
- Share the story of the Willamette River's health with stakeholders and the public
- Explain how societal, community, and personal choices affect the river

*For more information, and to see the report card online, please visit:*  
<http://ecoreportcard.org/report-cards/willamette-river/>

**Lakeview air quality designation**

In late November, EPA denied a petition asking to designate Lakeview as a nonattainment area for PM 2.5. The petition was submitted by the Northwest Environmental Defense Center and several other organizations and citizens noting their concerns with air quality. The Lakeview community has worked with DEQ and other partners over the past several years to reduce pollution from residential woodstoves, which make up much of PM2.5 emissions in that region, and that collaborative work was cited as a main reason for denial of the petition. Lakeview will continue its work to limit

PM2.5 emissions through voluntary measures, and DEQ is committed to continuing its work with the community for improved air quality.

*A copy of EPA's letter is attached to this report for reference.*

### **Oregon's Low- and Zero-Emission Vehicle programs**

Oregon has joined 11 other governments, nationally and internationally, in committing to a goal that all new passenger vehicles are zero-emission vehicles by 2050. Achieving this goal will accelerate the global transition to ZEVs and could reduce transportation sector climate impacts by more than 1 billion tons of carbon dioxide emissions per year by 2050, lowering global vehicle emissions by about 40 percent.

Governor Brown noted her support for the transition to cleaner vehicles in Oregon:

"The serious threats presented by global warming have been known for over three decades and future generations will rightly judge the morality and leadership of this generation not by the fact of climate change, but how we responded. Transitioning to Zero Emission Vehicles is a realistic way to achieve greenhouse gas emissions reduction targets."

The International ZEV Alliance, which organized this announcement as part of the climate change meetings in Paris, includes Germany, the Netherlands, Norway and the United Kingdom in Europe; California, Connecticut, Maryland, Massachusetts, Oregon, Rhode Island and Vermont in the United States; and Québec in Canada. DEQ does not yet have any related actions, but the agency will continue its work in the low-emission/zero-emission vehicles program which has operated since commission adoption of rules for model year 2009 and with intermittent goals for increased market share of low- and zero-emission vehicles in Oregon.

*For more information about the program, please visit:*

<http://www.deq.state.or.us/aq/orlev/>

### **2015 Charitable Fund Drive**

Each year, the state organizes a Charitable Fund Drive for state employees. DEQ again contributed the highest amount for an agency its size, with employees donating \$35,000 through payroll commitments or direct donations. The success of the agency is largely based on the excellent work of the state and local office coordinators and generosity of DEQ employees.

For 2015, the coordinators were:

- Mimi Meador, statewide coordinator and Headquarters floors 5 through 10
- Lisa Clark, Bend office
- Linda Van Tassel, Coos Bay and Medford offices
- Norm Read, Eugene office
- Michele Thompson, Headquarters 4<sup>th</sup> floor
- Justin Haynes, Headquarters, 11<sup>th</sup> floor
- Jacque Pliler, Lab
- Kate Strohecker, Northwest Region office

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- Tom Hack, Pendleton office
  - Jennifer Claussen, Salem office
  - Bob Schwarz, The Dalles office
  - Don Lenon, VIP Clackamas station
  - Mark Stegemeyer, VIP Gresham station
  - Peter Heynen, VIP Medford station
  - Zach Koch, VIP Scappoose and Northeast Portland stations
  - Jahzeel Perez, VIP Sherwood station
  - Jake Jacobsen, VIP Sunset station
  - Doug Hatfield, VIP Tech Center



THE ADMINISTRATOR OF THE ENVIRONMENTAL PROTECTION AGENCY

WASHINGTON, D.C. 20460

NOV 24 2015

Ms. Marla Nelson  
Staff Attorney  
Northwest Environmental Defense Center  
10015 Southwest Terwilliger Boulevard  
Portland, Oregon 97219

Dear Ms. Nelson:

I am responding to your September 15, 2014, petition to the U.S. Environmental Protection Agency to redesignate Lakeview, Oregon, as nonattainment for the 2006 24-hour fine-particulate-matter National Ambient Air Quality Standards (2006 24-hour PM<sub>2.5</sub> NAAQS) based on ambient-air-quality data collected during 2011, 2012 and 2013. This petition was filed on behalf of the Northwest Environmental Defense Center and other organizations and citizens concerned about air quality in Lakeview. I understand your concern about the risks posed by exposures to unhealthy levels of PM<sub>2.5</sub>, and I assure you that the EPA is committed to working with the states and our other partners to bring healthy air to all communities as quickly as possible.

The EPA carefully evaluated the issues and information in your petition as well as air-quality-planning information obtained from the Oregon Department of Environmental Quality, including emission-reduction strategies the state has put in place. The EPA has concluded that it is appropriate to allow the implementation of these strategies to continue to improve air quality with the goal of bringing healthy air to the area expeditiously. Specifically, the EPA expects that successful implementation of recently expanded open-burning restrictions, a mandatory residential woodstove curtailment program and other measures will reduce the largest sources of emissions on days when the monitored concentrations exceed the 2006 24-hour PM<sub>2.5</sub> NAAQS.

For the reasons explained in the enclosed "Response to Petition to Redesignate Lakeview, Oregon, as Nonattainment for the 2006 24-Hour Fine Particulate Matter National Ambient Air Quality Standards," the EPA denies the petition using the discretion that the Clean Air Act affords me as Administrator to not initiate a redesignation process for Lakeview at this time.

I appreciate your interest in reducing PM<sub>2.5</sub> levels in Lakeview and in providing cleaner, healthier air for the community.

Sincerely,

A handwritten signature in black ink, appearing to read "Gina McCarthy", is written over a horizontal line.

Gina McCarthy

Enclosure

Item R 000004

## Response to Petition to Redesignate Lakeview, Oregon, as Nonattainment for the 2006 24-Hour Fine Particulate Matter National Ambient Air Quality Standards

By petition dated September 15, 2014, the Northwest Environmental Defense Center, Oregon Wild, WildEarth Guardians, Beyond Toxics, Save Our Rural Oregon, Save America's Forests, Our Forests, Anti-Biomass Incineration Campaign/Energy Justice Network, Crag Law Center, Cascadia Wildlands, Neighbors for Clean Air, and citizens George Wuerthner, Dolores Benson, Bob Palzer, and Chris Zinda requested that the U.S. Environmental Protection Agency (EPA) redesignate Lakeview, Oregon, from unclassifiable/attainment to nonattainment for the 2006 24-hour primary fine particulate matter National Ambient Air Quality Standards (2006 24-hour PM<sub>2.5</sub> NAAQS), set at 35 micrograms per cubic meter (µg/m<sup>3</sup>). Petitioners based this request on ambient air quality data collected from the PM<sub>2.5</sub> federal reference method monitor located at Center and M Streets in Lakeview. The petition further requests that the EPA establish a specific boundary for the nonattainment area. For the reasons discussed below, the EPA is denying the petition.

Within 2 years of promulgating a new or revised NAAQS, the EPA has a mandatory duty under Clean Air Act (CAA) section 107(d)(1) to promulgate designations for all areas of the country. The EPA may extend the deadline by up to 1 year if the EPA has insufficient information to complete the designations. On November 13, 2009, the EPA completed the section 107(d)(1) final area designations for most areas in the country for the 2006 24-hour PM<sub>2.5</sub> NAAQS, including the Central Oregon Intrastate Air Quality Control Region that includes the town of Lakeview (74 FR 56688).<sup>1</sup>

When an area designated unclassifiable/attainment violates a NAAQS, the CAA provides the EPA with discretion regarding whether and when to redesignate the area to nonattainment. Section 107(d)(3) of the CAA states, "on the basis of air quality data, planning and control considerations, or any other air quality-related considerations the Administrator deems appropriate, the Administrator may at any time notify the governor of any state that available information indicates that the designation of any area or portion of an area within the State or interstate area should be revised." Thus, unlike initial area designations under section 107(d)(1), the Administrator's authority to initiate the redesignation process under section 107(d)(3) is discretionary.

### Air Quality in Lakeview, Oregon, and the Inland Pacific Northwest

In the Pacific Northwest, high levels of PM<sub>2.5</sub> often occur in winter during times of stagnant wind conditions, low ambient temperatures, and ground-based temperature inversions. While PM<sub>2.5</sub> emissions generally come from a variety of source categories, high PM<sub>2.5</sub> levels in small communities, particularly with topographical features that trap air pollutants, are often associated with winter time residential wood combustion (RWC) for home heating.

The EPA uses a 24-hour average "design value" to determine the air quality status of a given area relative to the PM<sub>2.5</sub> NAAQS. Specifically, this design value is the 3-year average of the annual 98<sup>th</sup> percentile highest 24-hour average PM<sub>2.5</sub> concentration. Weather plays an important role in PM<sub>2.5</sub> levels, especially for areas where RWC is a significant source of PM<sub>2.5</sub> emissions, and, thus, design values can fluctuate from year-to-year. For example, in 2013, the 98<sup>th</sup> percentile 24-hour average PM<sub>2.5</sub> value for Lakeview was 93.6 µg/m<sup>3</sup>, approximately two to three times higher than historic reported values. The

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<sup>1</sup> In the November 13, 2009, PM<sub>2.5</sub> NAAQS air quality designation action, the EPA deferred initial area designations for three areas in Arizona and California. The EPA completed these area designations on February 3, 2011 (76 FR 6056).

design value using data from 2011 through 2013 was 56  $\mu\text{g}/\text{m}^3$ . The high 98<sup>th</sup> percentile value for 2013 will continue to yield high design values for the periods 2012–2014 and 2013–2015.

Lakeview was not the only area to experience high concentrations of recorded PM<sub>2.5</sub> values in 2013. Throughout the inland Pacific Northwest, high concentrations of PM<sub>2.5</sub> values were reported across the region during a very strong winter inversion in January 2013. In 2014, the state of Idaho completed a meteorological analysis of the Cache Valley PM<sub>2.5</sub> nonattainment area in Franklin County, Idaho. The analysis, which was submitted to the EPA as part of the Cache Valley Idaho PM<sub>2.5</sub> Nonattainment Area State Implementation Plan (SIP) Amendment, Appendix 1 (December 2014), shows the strength and duration of an unusual stagnation episode in January 2013. Specifically, the analysis stated:

“While the inversion conditions were strong, the unusually high PM<sub>2.5</sub> levels resulted primarily from the duration of the event, or more specifically to the number of days that the low level inversions persisted in the afternoon without breakup. This caused a consistent day-to-day accumulation of PM<sub>2.5</sub> concentrations around 13  $\mu\text{g}/\text{m}^3$  per day. The duration of the continuous low stable layer (LSL) period was the longest in at least the past 10 years.”

While this analysis was provided for the Cache Valley Idaho PM<sub>2.5</sub> nonattainment area, it also demonstrates that this meteorological condition extended across the inland Pacific Northwest including eastern Oregon, Washington, Idaho and parts of northern Utah.

#### **Basis for Denial of Petition**

The EPA is denying this petition, as a matter of agency discretion, for several interrelated reasons.

#### **Fine Particle Reduction Measures for Lakeview, Oregon**

Actions taken by the town of Lakeview and Lake County, Oregon, indicate to the EPA that local governments are committed to addressing PM<sub>2.5</sub> concentrations in the Lakeview area. In February 2013, these local governments notified the EPA that although the area was not currently designated nonattainment for the 2006 24-hour PM<sub>2.5</sub> NAAQS, they intended to implement measures to reduce local PM<sub>2.5</sub> concentrations. These measures involved concerted state and local action, as well as close collaboration with the EPA. For example, after these local governments initiated discussion with the EPA, the agency provided technical advice, and identified tools and resources that can be used to reduce PM<sub>2.5</sub> concentrations in the area.

In September 2014, the town of Lakeview, Lake County and the Oregon Department of Environmental Quality (ODEQ) submitted a detailed plan to the EPA outlining various measures that the local governments would take. The plan can be found at the following Internet site: <http://www.deq.state.or.us/aq/LCLVadvisory/docs/LakeviewPMAdvPlan.pdf>. This plan contains many of the major elements that would be required in a nonattainment area SIP, including PM<sub>2.5</sub> emission control measures, an inventory of emission sources and emission rates, and modeling to demonstrate the anticipated effectiveness of the control measures. These efforts demonstrate that ODEQ and the local governments are committed to reducing levels of PM<sub>2.5</sub> in Lakeview.

Notably, this plan contains emissions data for the Lakeview Urban Growth Boundary (UGB). For the design day (the day with the highest 98<sup>th</sup> percentile concentration), the composition of PM<sub>2.5</sub> emissions are 76 percent RWC, 19 percent permitted industrial sources, 3 percent residential open burning and 2 percent other emission sources.

In recognition of the dominant role RWC emissions play with respect to PM<sub>2.5</sub> concentrations in the area, the plan contains many of the same control measures that other Pacific Northwest areas have incorporated into their PM<sub>2.5</sub> nonattainment area SIPs to address RWC emissions. The measures implemented in the Lakeview area include: an allocation of \$750,000 to “change-out” uncertified woodstoves for EPA-certified woodstoves; the ongoing implementation of the Heat Smart Program requiring the replacement of uncertified wood stoves upon a change in home ownership; the continuation and expansion of education efforts related to proper wood burning; the expansion of general open burning prohibitions during the winter (City Ordinance 829); and a mandatory curtailment of RWC during winter stagnation events (City Ordinance 851).

The RWC curtailment provision, which became effective for the winter season of 2014/2015, is expected to be a key measure to limit emissions of PM<sub>2.5</sub> on winter time days when exceedances of the standard are likely to occur. When PM<sub>2.5</sub> concentrations are predicted to be less than 16 µg/m<sup>3</sup>, no RWC restrictions are in effect. When PM<sub>2.5</sub> concentrations are predicted to be between 17 and 29 µg/m<sup>3</sup>, the curtailment program prohibits RWC in uncertified woodstoves. When PM<sub>2.5</sub> concentrations are predicted to be greater than 30 µg/m<sup>3</sup>, the use of all wood burning devices is prohibited, unless a sole-source-of-heat or low-income exemption was previously applied for and granted. It is our understanding that during initial implementation of the RWC curtailment measure during the winter of 2014/2015, 137 warning letters were sent to residential households that did not comply with a mandatory RWC burn ban.

The ODEQ plan also contains a memorandum of agreement between the town of Lakeview and the local silviculture industry, including the U.S. Forest Service, to minimize emissions from prescribed fire during periods of poor air quality.

Finally, the plan contains a linear rollback air quality model that projects the design value in 2019 will be 32 µg/m<sup>3</sup>. In fact, the fourth highest 24-hour average PM<sub>2.5</sub> reading during the winter months of November 1, 2014, through March 31, 2015, (a tentative proxy for the annual 98<sup>th</sup> percentile) was 26.9 µg/m<sup>3</sup>, indicating that the RWC curtailment provision is effective. Accordingly, the plan is providing for the implementation of emission reduction control measures that are expected to improve air quality in the Lakeview area. The current implementation of these control measures is an accelerated approach to address air quality concerns when compared with the approach the EPA would anticipate to occur through the nonattainment designation and attainment SIP planning process.

### **Permitted Point Sources**

Two permitted industrial sources in the Lakeview area accounted for approximately 19 percent of the design day 2011 PM<sub>2.5</sub> emissions. These sources are Cornerstone Minerals and the Collins Fremont Sawmill. Cornerstone is a minerals processing facility located approximately one mile north of the town of Lakeview and has the potential to emit 6.4 tons per year (tpy) of PM<sub>2.5</sub>. The Collins Fremont Sawmill is located approximately one mile from the downtown core of Lakeview and has the potential to emit 31.6 tpy of PM<sub>2.5</sub>. The proposed Iberdrola facility cited in the petition to EPA had a permit to construct a new 26.8 megawatt cogeneration facility, but the facility was not constructed and the permit has now been cancelled. The two operating sources, although contributing to PM<sub>2.5</sub> levels in the area, have a limited contribution to exceedances of the 24-hour NAAQS at the monitor located in a residential area of Lakeview where winter time RWC occurs.

The proposed Red Rock Biofuels facility recently received an air quality permit to construct from ODEQ. This source, if constructed, would have the potential to emit 9 tpy of PM<sub>2.5</sub>. The Standard Air

Contaminant Discharge Permit requires Typically Available Control Technology<sup>2</sup> and compliance with applicable EPA New Source Performance Standards.

None of the above referenced sources is a major source under the CAA. Redesignation of the area to nonattainment would not subject them to the CAA's requirements for major sources. The only source that has the potential to emit PM<sub>2.5</sub> or a PM<sub>2.5</sub> precursor above a significant emission rate and could ~~therefore subject the source to state New Source Review (NSR) requirements for future modifications, is~~ the Collins Fremont Sawmill.

Under Oregon's NSR rules, new sources or modifications to existing sources located within the Lakeview UGB are currently subject to the "Requirements for Sources in Sustainment Areas" (OAR 340-224-0045 or -024,5 respectively for major NSR and state NSR). The state requirements for Sustainment Areas are more stringent than the state "Requirements for Sources in Attainment or Unclassifiable Areas" (OAR 340-224-0070 and -0270, respectively). Under these state provisions, federal major sources are also required to meet the Prevention of Significant Deterioration (PSD) requirements as well as the additional sustainment area requirements. Thus, federal and state major sources must either demonstrate that the new or modified source would not cause a significant contribution to existing NAAQS violations or provide emission offsets to ensure that there is a net air quality benefit. These state provisions, that are more stringent than required under the federal CAA, ensure that any new or modified sources would not adversely impact air quality in the Lakeview UGB. In light of the limited contribution from existing permitted point sources to PM<sub>2.5</sub> levels at the monitor and the current regulatory requirements for new sources, the EPA believes that additional measures to address point source emissions are not necessary to bring the area into attainment at this time.

## Conclusion

Because the town of Lakeview has proactively implemented a program to address air quality concerns, including measures similar to what would be required under a nonattainment area SIP, and the EPA has reason to believe those measures are reducing PM<sub>2.5</sub> concentrations in Lakeview to levels below the NAAQS, the EPA has concluded it is appropriate to not redesignate the Lakeview unclassifiable/attainment area to nonattainment at this time. If such measures do not reduce emissions sufficient to attain the NAAQS, the EPA retains the discretion to redesignate Lakeview to nonattainment in the future.

For the reasons explained above, including weather patterns in Lakeview and the inland Pacific Northwest, and consideration of the emission reduction analysis, planning, and established control measures, the EPA is choosing not to exercise its discretion to initiate the redesignation process for Lakeview, Oregon. The ODEQ and Town of Lakeview have selected and are actively implementing control measures to reduce emissions. The EPA believes that initial information suggests that these measures have been effective in improving air quality and that it is appropriate to allow additional time to determine if those measures are sufficient to provide for attainment in the Lakeview area. The EPA expects these improvements in air quality to result in reductions in the prevalence of health-related problems from PM<sub>2.5</sub> exposure.

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<sup>2</sup> The requirements for Typically Available Control Technology can be found in OAR 340-226-0130.