

## Wood Smoke Curtailment Programs in Other Jurisdictions



### Home Wood Heating Curtailment

Many communities around the Pacific Northwest have instituted curtailment programs to ensure concentrations of PM2.5 remain at health levels. Curtailment programs and policies work to reduce burning wood for home heat through voluntary or mandatory no-burn advisories. Advisories are issued when air quality reaches or is projected to reach unhealthy levels. In order for a mandatory curtailment program to be effective it must have the following capabilities:

- Forecast and report air quality conditions throughout the jurisdiction
- A public alert system that notifies the community of poor air quality through a variety of means (web, social media, reverse 911, etc.) and discourages/prohibits wood burning depending on consistent thresholds
- Ongoing community education and outreach that focuses on burning wise
- An enforcement mechanism to address ongoing issues
- A wood stove change out program to help families who rely solely on wood heat to transition to a newer/cleaner appliance

Most programs exempt low-income households and those who rely solely on wood heat.

Jurisdiction	Advisory Framework	Exemptions
Washington County, OR (unincorporated only- City of Hillsboro and some other jurisdictions within the county have their own programs, and some jurisdictions do not participate)	<b>Residential Indoor:</b> Three stage no-burn advisory <b>-Green:</b> County determines current levels of monitored and/or forecasted PM2.5 are acceptable- no restrictions. <b>-Yellow:</b> County determines current levels of monitored and/or forecasted PM2.5 to reach a daily (24 hour average) of 30 mg/m3. <b>-Red:</b> County determines current levels of monitored and/or forecasted PM2.5 to reach a daily average of 35 mg/m3 or higher. <b>Residential Outdoor:</b> Prohibits “open” burning on residential properties, year round, for households within the Metro Service Area for yard debris collection.	Available based on sole source of heat, income, interruption in utility service, or when a household’s primary heating system is temporarily inoperable (max 120 days).  Residential outdoor rules do not restrict recreational fires or burning associated with agricultural operations. Application for “Hardship Permit” exists for outdoor rules only.
Oakridge, OR	<b>Residential:</b> Three stage no-burn advisory <b>-Yellow:</b> Burning is allowed so long as opacity does not exceed 40%. Advisory issued if PM2.5 levels are projected to be between 41-54 mg/m3 <b>-Red I:</b> Burning is allowed so long as there are no visible emissions. Advisory is issued when PM2.5 levels are forecasted to be between 55-64	Available based on income and for those who have no other source of heat. Exemptions must be renewed annually.

	<p>mg/m<sup>3</sup>.</p> <p><b>-Red II:</b> No burning allowed except zero visible emission pellet stoves. Advisory is issued when PM<sub>2.5</sub> levels are forecasted to exceed 65 mg/m<sup>3</sup>.</p>	
Eugene, OR	<p><b>Residential:</b> Three stage no-burn advisory</p> <p><b>-Yellow:</b> Burning is allowed so long as opacity does not exceed 40%. Advisory issued if PM<sub>2.5</sub> levels are projected to be between 25-29 mg/m<sup>3</sup></p> <p><b>-Red I:</b> Burning is allowed so long as there are no visible emissions. Advisory is issued when PM<sub>2.5</sub> levels are forecasted to be between 30-35 mg/m<sup>3</sup>.</p> <p><b>-Red II:</b> No burning allowed except zero visible emission pellet stoves. Advisory is issued when PM<sub>2.5</sub> levels are forecasted to exceed 35 mg/m<sup>3</sup>.</p>	Income-based exemptions for those who qualify for Lane County's Low Income Energy Assistance Program. Exemption must be renewed annually.
Jackson County, OR	<p><b>Residential:</b> Two stage no-burn advisory</p> <p><b>-Yellow:</b> No use of uncertified wood stoves and no visible emissions allowed.</p> <p><b>-Red:</b> No use of uncertified wood stoves and no visible emissions allowed.</p> <p>Both advisories are issued when the County or DEQ determine levels of PM<sub>2.5</sub> are forecasted to approach unhealthy levels. Actual levels are not defined in policy/ordinance.</p>	Available based on income and special need- defined as a temporary exemption when a furnace or other heating system is inoperable.
Klamath County, OR	<p><b>Residential:</b> Three stage no-burn advisory</p> <p><b>-Green:</b> Burning allowed in all appliances except fireplaces without a certified insert, which are banned Nov. 1<sup>st</sup> through Feb 28<sup>th</sup>, and opacity is not to exceed 20%.</p> <p><b>-Yellow:</b> Only certified wood stoves and inserts are allowed. Advisory issued when PM<sub>2.5</sub> levels are forecasted to exceed 16 mg/m<sup>3</sup>.</p> <p><b>-Red:</b> No burning except for the use of pellet stoves. Advisory issued when PM<sub>2.5</sub> levels are forecasted to exceed 30 mg/m<sup>3</sup>.</p>	Available based on income and must be renewed annually. Community-wide exemptions available if utilities are interrupted.
Clark County, WA	<p><b>Residential:</b> Two stage no-burn advisory</p> <p><b>-Stage 1:</b> No use of fireplaces or uncertified wood stoves or inserts. Advisory issued when PM<sub>2.5</sub> levels are forecasted to exceed 35 mg/m<sup>3</sup>.</p> <p><b>-Stage 2:</b> No wood heating allowed. Advisory issued when (i) a Stage 1 Advisory has not reduced or shows an upward trend, (ii) levels of PM<sub>2.5</sub> are exceeding 25 mg/m<sup>3</sup>, or (iii) levels of PM<sub>2.5</sub> are forecasted to remain at or above 25 mg/m<sup>3</sup> for more than 24 hours.</p> <p>At no time may smoke from a flue or chimney exceed 20% opacity.</p>	

San Francisco, CA (BAAQMD)	<p><b>Residential:</b> “Spare the Air” alerts issued for a forecasted EPA AQI of 100 or higher. All burning is banned unless a qualified exemption is met. Outdoor “recreational” fires are included.</p> <p>Uncertified devices are not allowed in any new construction, and certified devices must register with the air district.</p>	Limited exemptions available for sole source of heat (must be EPA certified device), non functional permanently installed alternative heating device (30 day max), loss of utility service.
New York City	<p><b>Residential:</b> Restrictions on Outdoor Wood Boilers: Must be EPA Certified, burn clean dry fuels, and not cause a nuisance. (awaiting info on wood stoves) (new wood heating devices must meet EPA PM standards, fireplaces cannot be used as primary source of heat, clean, dry firewood requirement- verify) <b>Commercial:</b> Char broilers (more than 875 lb meat cooked/year requires 75% removal efficiency controls). Any coal or wood fired cooking device is also required to have the same efficiency of controls.</p>	<p><b>Char Broilers:</b> Code amended in 2015, required compliance in 2016 (unclear of when original rule was passed)</p> <p><b>Wood/Coal Fired:</b> Existing facilities have grace periods to comply- 5 years from adoption (adopted in 2015, compliance in 2020) (Wood home heating exemptions?)</p>
Quebec, Canada	<p><b>Residential:</b> Program similar to Oregon’s Heat Smart regarding installation of wood heating devices in any residence after 2009. Penalties for violation are steep- up to \$3 Million in fines and 18 months in jail. (Lacking information on specific curtailment ordinance)</p>	Application process exists to be granted a variance to the rule.

These programs are enforced to varying degrees. For example:

- **Eugene/Springfield:** The Lane Regional Air Protection Agency (LRAPA) performs “smoke patrols” during no-burn advisories. Staff patrol neighborhoods to identify households violating the ban and follow up with a notice of violation and educational materials. Repeat violators may be fined up to \$500.
- **Oakridge:** The enforcement system is complaint-driven, meaning the community can report those violating the ban to the Police Department or LRAPA. Complaints are typically addressed through education.
- **Clark County:** The Southwest Clean Air Agency has a system to accept complaints through phone or email. The Agency follows up by mailing an educational packet.
- **San Francisco (BAAQMD):** Eliminated warning letters, 1<sup>st</sup> offence results in either \$100 fine or participation in a wood smoke educational class. Second and subsequent offence results in a \$500 fine.