



# OAKRIDGE CEDAR CREEK FIRE 2022 INTERNAL AFTER ACTION REPORT



Photo credit: Melanie Brown, Civic Science Fellow, UO Center for Science Communication Research

Oakridge Cedar Creek Fire  
Internal After Action Review Report

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## Executive Summary

An After Action Review workshop was facilitated on Monday, December 5, 2022 for City of Oakridge, Lane County staff, and Oakridge community members who participated in the emergency responses in Oakridge for wildfire evacuation and hazardous air quality related to the Cedar Creek Fire (see timeline for details). Oakridge had 37 days from August-October 2022 when air quality was unhealthy for sensitive groups (AQI of 101-150). In an effort to learn from this unprecedented and extended event, Southern Willamette Forest Collaboratives partnered with researchers at the University of Oregon to conduct this internal After Action Review. The review consisted of one workshop that lasted 2 hours and was broken up into two sessions: 1) evacuation and 2) smoke and air quality.

**For evacuation**, participants noted that several components of the evacuation went well, primarily related to communication timing and modes, early planning, and the use of public resources (e.g., buses). Key areas for evacuation improvement include staffing capacity, establishing an Emergency Operation Center (EOC), and improving communication and emergency planning for multiple scenarios (with and without electricity or external funding and support).

**For smoke and air quality**, participants noted the success of the air purifier distribution program, the installation of Purple Air sensors, a field trip for school children, and strong communication about cleaner air spaces. The key areas for improvement include communication and emergency planning for multiple scenarios, streamlining (and improving the accessibility of) the purifier screening criteria and resource availability, and providing additional support for schools. The remainder of this report is divided into: 1) summarized/overall recommendations from both events; 2) Evacuation Timeline; 3) Smoke Response Timeline; and 4) more information from the discussions from each session and the resulting recommendations.

# Cedar Creek Fire Smoke Response Timeline

September

*Tuesday, Sept. 6*

- Discussions about activating a cleaner air shelter began between LRAPA, Lane County, City and OA.
  - It was communicated that there were still forecasted hours of relief and when cleaner air spaces must be activated
  - OA posted a SM post with the City Library's hours and LRAPA shared via text and updated brochures for the fire trap line
- 

*Wednesday, Sept. 7*

- Weather forecasts deteriorated and OA began planning for opening a second cleaner air space at First Baptist Church
  - OA activated MOU to have an backup cleaner air space at High School multipurpose room in case power went out over the weekend
- 

*Thursday, Sept. 8*

- LRAPA issues air quality advisory for the weekend forecasting that the east wind would bring a lot of smoke to Oakridge
  - 1500: Lane County emergency planning meeting
  - OA coordinated with Lane County to access industrial air scrubbers at Lane County conex box located at public works
  - OA hauled one scrubber to First Baptist and prepositioned second at OA offices
  - OA printed signage for cleaner air spaces in case power went out
  - OA posted social media info about the second cleaner air space opening Friday
  - OA did a walkthrough of multipurpose room with OSD superintendent, reviewed backup power switches and collected keys for the building
- 

*Friday, Sept. 9*

- Cleaner air space at First Baptist opened and First B was staffed by church volunteers
  - OA messages about bus evacuation locations
- 

*Monday, Sept. 12*

- 0930: Lane County ESF6 & ESF8 briefing
  - 1100: City of Oakridge downgraded to a Level 1, remaining residential areas downgraded to a Level 2 at 1100
  - Library cleaner air space was reopened
- 

*Tuesday, Sept. 13*

- OSD superintendent reached out to OA for help with industrial scrubbers and OA requested the extra LC scrubber be loaned to OSD
- Good Company helped OSD apply for more purifiers from DHS OREM
- Resources offer for food loss: SNAP benefits reimbursable for power outage

Wednesday, Sept. 14

- Food for Lane County provides emergency food boxes
- 

Thursday, Sept. 15

- OA coordinated with OSD to use divert extra purifiers to Westridge
  - OREM delivered plastic/ tape resupply for industrial purifiers
- 

Monday, Sept. 19

- Air quality deteriorated
  - OA added a purple air monitor to the elementary school (from Sarah's house) and installed one at Westridge (from LRAPA) and moved the High School monitor from a storage room to the gym
  - OA sent a request for more industrial purifiers from DHS
  - Staff works to give replacement filters for older Winix air purifiers
- 

Wednesday, Sept. 21

- OA borrowed OSD box truck and drove to Salem to pick up 8 industrial air scrubbers (one didn't function)
  - OHA called on the way and offered individual air purifiers and OA collected 114 purifiers and extra filters
  - 30 OHA purifiers were loaned to OSD for classrooms, 14 were given to Orchid Health for patients
- 

Thursday, Sept. 22

- OA worked with DHS and OHA to develop and approve a data collection system to distribute purifiers
  - OA distributed a newsletter with info about the purifier handout event and link to interest form
- 

Friday, Sept. 23

- OA joined a Lane County giftcard handout event at the fire department and distributed 50 purifiers in 3 hours using 2-3 mobile laptop stations
    - Medicaid/ OHP recipients and a qualifying health condition
  - OA borrowed the ODS box truck and picked up 281 purifiers and 162 filters from Roseburg
- 

Monday, Sept. 26

- OA started handing out purifiers in the office 0800-1100 M-F
    - OA got permission to start handing out purifiers Medicare recipients with a qualifying health condition
  - OA published updated info on FB and Cedar Creek Fire trapline
- 

Friday, Sept. 30

- SWFC published a newsletter with the updated purifier information
- 

October

Monday, Oct. 3

- Totals distributed to date: 178 purifiers and filters
  - OA requested more purifiers and requested OHA increase the vulnerability factors for eligibility to receive a purifier
- 

Tuesday, Oct. 4

- OHA delivered ~170 purifiers and filters to the OA office

Thursday, Oct. 6

- OA again requested OHA increase in vulnerability risk factors to receive a purifier
    - Children under 12 and senior citizens
- 

Friday, Oct. 7

- OHA approved air purifier distribution to pregnant women and children under 12 and removed the medical condition stipulation for this group
  - OA and Good Company installed 6 more purple air monitors at OSD schools
- 

Monday, Oct. 10

- OA increased distribution hours M-F 0800-1100 & Tu-Th 1500 - 1800, started distributing to pregnant women and 12 and under, LRAPA sent an OA text message
  - SWS board members began helping with OA purifier distribution staffing, Good Company helped screen calls
  - Outdoor burning delayed until Nov. 1
- 

Thursday, Oct. 13

- Lane County reactivated the emergency operations center for the smoke response
  - Lane County donated to Oakridge 109 winix purifiers they had in storage
  - 500 air purifiers distributed to date
- 

Friday, Oct. 14

- Air purifiers distribution opened up to anyone living in Oakridge/Westfir who does not already have an air purifier (Lane county Winix model)
- 

Saturday, Oct. 15

- OA held a Saturday distribution day with the help of volunteers. Almost ran out of purifiers.
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Tuesday, Oct. 18

- A new shipment of OHA purifiers and replacement filters come in
- 

Thursday, Oct. 20

- 1,000 air purifiers distributed to date

## Top Recommendations for Future Preparedness and Response

### 1. Develop a comprehensive internal and external communication plan.

- **Establish** a central communication hub (e.g., Lane County website) where information will be posted for external stakeholders early and often.
- **Identify** a funding plan for situations with differing levels of support from state and federal government.
- **Plan** for multiple communication channels and scenarios, including with and without electricity or Wifi (e.g., pre-designated reader board sites, mobile reader boards, trucks with megaphones, and walk-and-talks).
- **Draft** webpages and email templates for various scenarios, including information on the top five essentials that people need during an emergency.

### 2. Increase staffing and resources for community emergency planning and response.

- **Plan** for where and how to conduct community briefings during events, with differing levels of support from state and federal government (with or without disaster or emergency declaration).
- **Create** a paid position to expand and oversee a community emergency response team (CERT) with a designated incident command email address that also conducts asset mapping on an annual or semi-annual basis.
- **Designate** roles at both the city and county levels roles for briefings and on-the-ground work.
- **Establish** an Emergency Operations Centers (EOC) with a backup generator, fuel, and other emergency supplies.

### 3. Pre-plan air purifier distributions.

- **Clarify** and refine air purifier eligibility criteria, be specific about what defines vulnerable populations and health condition-related eligibility.
- **Ensure** purifiers are functioning, filters are replaced when needed, and the best quality models are obtained (such as those with AQI display).
- **Include** residents without internet or social media in outreach.
- **Create** a document outlining key contacts so community-based organizations overseeing distribution know who to call for what information.

### 4. Increase support for public schools navigating prolonged smoke events.

- **Create** more guidance for school principals, teachers, and staff during smoke events.
- **Anticipate** navigating multiple plans and resources for addressing prolonged smoke events for children.
- **Provide** support for field trips and free passes to recreation centers (e.g., Willamalane) for children and families.



#### 5. Provide additional training and capacity for mental health impacts and community trauma.

- **Train** and increase capacity for mental health impacts and community trauma, particularly among staff and volunteers who interface with community members who may be experiencing mental health difficulties.
- **Anticipate** using these resources particularly during extended smoke events.
- **Support** community members and local organizations.
- **Include** mental health in future monitoring metrics and possibly future public health research studies.

## After Action Review Findings

An After Action Review (AAR) workshop was facilitated on Monday, December 5, 2022, at the South Willamette Solutions office in Oakridge, Oregon. There was an online option for participants who could not attend the workshop in person and wanted to listen to the discussion. The workshop was open to the City of Oakridge, Lane County staff, and Oakridge community members who participated in the emergency responses in Oakridge in the fall of 2022. The workshop was broken up into two sessions: 1) evacuation and 2) smoke and air quality. This section summarizes the discussion based on the AAR format of identifying: 1) what went well, 2) areas for improvement and 3) overall recommendations.

### Session 1: Evacuation

#### What went well

Participants noted that several components of the evacuation went well: **early planning, effective use of social media and word-of-mouth, advanced printing of evacuation signs, and having enough public transportation available.** Participants estimated that approximately 75% of residents evacuated to safer locations. They attributed evacuation success to **early notifications, transparency in communication, previous evacuations within the community, the incident's longevity, and the fact that many people had already left due to poor air quality.**

#### Areas for improvement

The evacuation gave participants ideas on how to better prepare for future events. Participants noted that **staffing capacity for briefings and communication roles was an issue.** In particular, participants expressed difficulty when trying to do on-the-ground work, attend all briefings/meetings, and communicate with outside partners. Community briefings were helpful, but **capacity limits for staff working in the community limited their utility.** Another communication issue identified was glitches with text messaging notification when using batch delivery. With text messaging, participants reported having a difficult time knowing when and who received messages. They additionally encountered issues related to certain cellular carriers and glitches with batch delivery times. And while the participants noted that electricity stayed

on during the evacuation and caused no issues this time, **they identified a need for an Emergency Operations Center (EOC) with a backup generator, fuel, and other emergency supplies.**

Participants identified **a need to have a thorough plan for all internal and external communication in multiple scenarios, including plans for emergencies with or without power.** Specific ideas for communication included: having a central place (e.g., Lane County website) where information is given to all external stakeholders early and often; drafting webpages and email templates for different scenarios; planning for multiple communication channels that go beyond social media and emails, including pre-designated reader board sites, mobile reader boards, trucks with megaphones, and walk-and-talks. **When planning, participants expressed a need to have pre-designated roles for individuals at both city and county levels. This might include a paid position to expand and oversee a community emergency response team (CERT) with a designated incident command email address.** This position would also be responsible for asset mapping on an annual or semi-annual basis. In addition, participants emphasized **a need for communication to community members about the importance of having an emergency plan in place,** with increased emphasis on the top five essentials that people need during an emergency, so individuals and households can be ready.

## Session 2: Smoke

### What went well

Participants identified several successful components of the community response to the extended smoke event, including **the distribution of 1,000 air purifiers, strong communication about cleaner air spaces, the installation of purple air monitors, field trips for school-aged children, and the opportunity to gather contact information and sign people up for text messages during the air purifier distribution process.** Staff and volunteers logged more than 1,000 hours organizing and managing the air purifier distribution process and estimate that distribution took an average of one hour per purifier. The participants talked about wanting to share the community's story to help others prepare for a smoke event in the future.

### Areas for improvement

This was the first time there was state funding for air purifiers, and there was a learning curve about who to contact, how to get them, how many would be received at any point, and who would be eligible at different points in time. **One of the primary discussion points was the eligibility screening criteria and how vulnerable populations were defined,** with a concern that red tape made it difficult to distribute purifiers to those who needed them. In addition, there was a need to be specific with language about eligibility related to health conditions and residence location, so participants could understand what made them part of an eligible group. Participants also noted a lag time for eligible residents who didn't have access to social media or email. By the time residents in this group came to receive an air purifier, all purifiers were gone.

The extended smoke event impacted air filter lifespan, and residents reported filters lasting for approximately one month with severe smoke. This points to **a clear need to have replacement filters on hand for distribution for future events**. In addition, participants reported their preference for air purifiers that had an AQI display which enabled residents to view real-time AQI in their homes. While private companies donated some smaller air purifiers (desktop models), these were less useful since larger air purifiers are needed to clear air in severe smoke events. Participants suggested several ways to plan in advance for future events including (1) having funds available for community-based organizations (CBOs) that oversee distribution, (2) having devices and replacement filters on hand to the extent possible, and (3) finding ways to simplify eligibility screening.

**Participants identified a need to have more resources and a plan for when events have no formal disaster declaration from the state or federal government but nonetheless have widespread social, economic, and health impacts.** In cases where smoke doesn't qualify for designation as a public health emergency or disaster, there needs to be a plan for funding emergency response. Given the lack of any regulatory authority over an indoor air quality, participants expressed **a need to provide better guidance for teachers and school principals about supporting students and their families** and plan for more school field trips so students can spend more time in cleaner air spaces. Participants also expressed a desire for more training and capacity to deal with mental health and community trauma during smoke events, particularly when residents can't go outside or leave home for extended periods of time. Participants discussed the potential for future possible studies on health impacts, ER visits, prescription rates, and future respiratory health impacts (e.g., RSV), as well as a need to include mental health in monitoring metrics.

Consistent with the discussion about evacuation, participants identified **a need for a communication plan during times with and without internet and electricity**. To reach all residents, participants discussed including flyers about smoke and related information in food boxes, mailers in electric bills, and utilizing every door direct mail (EDDM) through the United States Postal Service (EDDM goes out the next day to approximately 2,500 addresses). Officials could utilize city or fire department printers for mailers. Lastly, there is a need to clearly communicate the differences between AQI averages and real-time information, so residents know when it is safe to open windows and don't miss the opportunity to do so.