

1.0. Program Objectives

a. Project Summary Page

Project Title: *Building Community Resiliency to the Hazards of Smoke and Wildfires*

Project Location: Greater Oakridge-Westfir area and Firewise communities, Lane County, Oregon

Project Period: July 1, 2024 through June 30, 2027

Project Cost: \$997,622

Project Type: Resiliency Building, Emergency Preparedness, Community Engagement, Research

Environmental Issues: Air & Pollution, Wildfires, Smoke Impacts, Public Health

Underserved Communities & Vulnerable Populations: Rural area of less than 5,000 in population; historically low-income; subject to wildfires and wildfire smoke due to geographic and topographic characteristics

Special Considerations: Climate Change & Disaster Resiliency, Rural Area, Health Impact Research Project

Lead Applicant: Lane Regional Air Protection Agency (LRAPA); Travis Knudsen, Executive Director, (541) 736-1056 x217, _Travis@lrapa.org; Unique Entity Identifier: DUAWJMRJC4J5

Project Partners:

1. **Community Based Organization (CBO) Partner** – South Willamette Solutions (SWS); Sarah Altemus-Pope, (541) 521-5786, director@swfcollaborative.org; Unique Entity Identifier: SQD3M1XTDLZ7
2. **Regional Partner** – Lane County Public Health (LCPH); Rachel Stinson, (541) 682-3617 Rachel.Stinson@lanecountyor.gov; Unique Entity Identifier: XCLAXTCSJF71
3. **Community Partner** – City of Oakridge; James Cleavenger, (541) 782-2258 cityadministrator@ci.oakridge.or.us; Unique Entity Identifier: XJQZMAY3QM58

QAPP: Yes, based upon answers to the Appendix G questionnaire.

Project Abstract:

This project aims to transform the Oakridge-Westfir area into a healthy, thriving community capable of addressing historical and future environmental and public health challenges related to wildfire and smoke. This proposal builds on two previous EPA Targeted Airshed Grant investments in the City of Oakridge’s air quality and human health, which instigated the formation of the brand and banner *Oakridge Air*. This application benefits from an existing relationship with South Willamette Solutions, a community-based nonprofit, and established working groups to expand services offered through *Oakridge Air* to develop and implement specific approaches that achieve environmental justice through the methods of home hardening and smoke proofing interventions on approximately 25 area homes.

This application also funds efforts to implement a community-developed 2020 Smoke Community Response Plan; a wood waste program coordinator to extend the life of a community firewood program that delivers seasoned firewood to the community with over 80% of sales to low-income, senior, or disabled residents; a wood products feasibility study to identify economically viable uses of local forest stock which reduces forest fuel load while also creating economic opportunities for Oakridge-Westfir; a health and morbidity research assessment of wildfire smoke on rural Eastern Lane County exasperated by the limitation of prescribed fire in the Willamette National Forest; publish a lessons learned/best practices toolkit with presentations to areas comparable to Oakridge to encourage the implementation of similar programs.

Mitigating the effects of smoke and wildfires while promoting community resiliency will achieve meaningful environmental and public health results for residents.

b. Disproportionate Environmental & Public Health Issues Impacting Underserved Communities

Oakridge-Westfir, Oregon experiences disproportionate adverse impacts from poor air quality and is more vulnerable to those risks because of several historic environmental justice factors. This community is in the 99th and 100th percentile rankings for the community in both cancer risk and respiratory hazard indicators and has a disproportionately older and lower income demographic. Using Lead Paint indicators via the EPA's EJScreen tool, Oakridge-Westfir homes are in the 81st percentile for the EPA region, meaning that only 19% of homes in the whole region are older. Furthermore, this community ranks in the 93rd percentile for low-income indicators, showing that the long period of economic stagnation there continues to prevent upgrades to the housing stock, causing increased threats to health and safety. Coupling these factors with the presence of wildfire in the surrounding landscape results in a smoke vulnerable population.



EJScreen Report (Version 2.1)



the User Specified Area, OREGON, EPA Region 10

Approximate Population: 4,489

Input Area (sq. miles): 14.50

Oakridge-Westfir

Selected Variables	Value	State Avg.	%ile in State	USA Avg.	%ile in USA
Pollution and Sources					
Particulate Matter 2.5 ($\mu\text{g}/\text{m}^3$)	6.82	8.69	8	8.67	11
Ozone (ppb)	40.1	37	77	42.5	32
Diesel Particulate Matter* ($\mu\text{g}/\text{m}^3$)	0.0361	0.337	7	0.294	<50th
Air Toxics Cancer Risk* (lifetime risk per million)	30	32	59	28	80-90th
Air Toxics Respiratory HI*	0.4	0.47	42	0.36	80-90th
Traffic Proximity (daily traffic count/distance to road)	160	660	44	760	43
Lead Paint (% Pre-1960 Housing)	0.5	0.24	81	0.27	73
Superfund Proximity (site count/km distance)	0.019	0.081	19	0.13	17
RMP Facility Proximity (facility count/km distance)	0.019	0.78	3	0.77	1
Hazardous Waste Proximity (facility count/km distance)	0.018	1.6	6	2.2	2
Underground Storage Tanks (count/km ²)	2.7	3.8	60	3.9	64
Wastewater Discharge (toxicity-weighted concentration/m distance)	N/A	0.0046	N/A	12	N/A
Socioeconomic Indicators					
Demographic Index	34%	27%	75	35%	58
People of Color	8%	25%	18	40%	21
Low Income	60%	29%	93	30%	88
Unemployment Rate	16%	5%	94	5%	92
Limited English Speaking Households	0%	2%	0	5%	0
Less Than High School Education	18%	9%	88	12%	78
Under Age 5	3%	5%	38	6%	34
Over Age 64	32%	18%	88	16%	91

The greater Oakridge-Westfir area is vulnerable to the threat of wildfires and wildfire smoke due to its location within the Cascade Range, a region known for its dry summers and high wildfire danger. The area has experienced several large wildfires in the past, with significant impacts on the community and the surrounding environment. Potential exposure to pollutants during a wildfire and/or smoke event include particulate matter, carbon monoxide exposure, and other hazardous air pollutants like polycyclic aromatic hydrocarbons (PAHs). Repeated and/or prolonged exposure to such pollutants can have detrimental effects to human health in the form of respiratory

ailments, exacerbated pre-existing conditions like asthma or chronic obstructive pulmonary disease (COPD), mental health impacts, increased cardiovascular risks, impaired cognitive processing and others.

In 2022, the Cedar Creek Fire, located 15 miles east of Oakridge, burned 127,311 acres of forest and wilderness land in the Willamette National Forest. This lightning caused fire required the mandatory evacuation of Oakridge and severely impacted air quality. For 37 days, between September 1 and October 31, 2022, Oakridge experienced 24-hour averages above health bases standards set by the EPA.

In 2021, the nearby Middle Fork Complex Fire burned more than 30,000 acres of forest and caused significant smoke impacts to the Oakridge-Westfir area. The complex was a conflagration of 12 fires, the border of which was roughly 9 miles north of Oakridge. In response to this event, the Governor's office invoked the Emergency Conflagration Act allowing for the use of more resources and firefighters. A combination of periods of air inversion coupled with terrain-driven winds resulted in reoccurring poor air quality for the Oakridge-Westfir area throughout the period of fire activity.

In 2020, the Lionshead Fire burned more than 204,000 acres of forest and wilderness land in the Willamette National Forest, including areas near Oakridge-Westfir. This fire, which was caused by lightning, forced the evacuation of several nearby communities and resulted in road closures and significant smoke impacts throughout the region.

The impacts of wildfire smoke on air quality in the Oakridge-Westfir area have been well-documented. During the 2020 and 2022 wildfire seasons, the area experienced multiple episodes of hazardous air quality, with particulate matter concentrations exceeding 200 micrograms per cubic meter, well above the EPA's standard of 35 micrograms per cubic meter for healthy air. These conditions can pose serious health risks, particularly for individuals with respiratory issues, older adults, and young children. For those with pre-existing conditions, the impacts of wildfire smoke could potentially contribute to increasing environmental health inequalities.

One of the most recent efforts to address the reduction of wildfire hazardous fuels in the Oakridge-Westfir area is the Southern Willamette Forest Collaborative's Wildfire Risk Reduction Project. The Oregon Department of Environmental Quality (ODEQ) and Oregon Department of Forestry (ODF) have approved funding for projects which will treat up to 300 acres on private lands. The project will provide for the removal of invasive species, thinning small understory trees, prescribed fire, and similar activities to reduce fuels in priority areas previously identified with Firewise assessments. With the inclusion of the *Building Community Resiliency to the Hazards of Smoke and Wildfires* program into the *Oakridge Air* banner, the community will have even greater resiliency in the face of wildfire and related smoke.

The health impact research component proposed under this grant will examine the relationship of wildfire smoke impacts on health and the need for forest fuel load reduction strategies to reduce the likelihood and intensity of local wildfires. This is an environmental justice concern in Oakridge as a community in the upper percentile for vulnerable populations – health conditions, income, age and education.

Overall, the greater Oakridge-Westfir area is highly vulnerable to the threat of wildfires and wildfire smoke due to its location within a high fire danger region. Historical data on wildfire activity and air quality in the area indicate that the impacts of these events can be significant and long-lasting, underscoring the need for ongoing monitoring and planning to minimize their impacts on the community.

The *Oakridge Air* program is primarily designed to improve air quality within the airshed and expand community resilience to natural hazards. With the inclusion of the *Building Community Resiliency to the Hazards of Smoke and*

Wildfires program into *Oakridge Air*, the project will: (1) prioritize the most at risk homes using Firewise and social vulnerability criteria to receive home interventions; (2) use the technological interventions that make homes comfortable, affordable and resilient while safeguarding from fire and smoke intrusion; (3) expand employment through the work on homes – both rented and owned; (4) provide a toolkit and roadmap for other rural communities with similar social, environmental, and health vulnerabilities to undertake home hardening and smoke proofing work; (5) and review and assess health and morbidity data with the assistance of Lane County Public Health to better inform and empower the public while raising awareness of the health impacts of wildfire smoke.

Incorporating this project into the *Oakridge Air* banner will effectively address disproportionate impacts on the community by simultaneously improving health and economic outcomes. The home hardening and smoke proofing upgrades will target homes with high needs. By protecting residents' homes from wildfires and installing home interventions that reduce exposure to wildfire smoke intrusions, residents may miss fewer days of work from illness and have greater disposable income to support the local economy. Providing personal air filtration will reduce air quality associated health consequences for children and residents in those homes. The filtration will also increase safety and improve health outcomes during periods of poor air quality, potentially lowering the spike of health impacts evidenced in the data. Public education from the home hardening and outreach coordination will augment understanding in the community about the connections between wildfire activity, poor air quality, and poor health, especially when relocating individuals is not practical.

c. Organization's Recent Efforts to Directly Support Underserved Communities

LRAPA's involvement with the *Oakridge Air* initiative serves as a prime example of the Agency's recent efforts to provide direct support and build relationships with underserved communities and vulnerable populations. *Oakridge Air* currently provides direct assistance to underserved residents through home heating upgrades and weatherization work, distribution of air purifiers, and ongoing education and engagement. Over the past five years, LRAPA has supported all of the projects, public meetings, workshops, and community events organized by *Oakridge Air* and its partners to ensure that the voices of the residents are heard in the decision-making process. These efforts have empowered the local community by building their capacity to address a greater range of public health and environmental issues, such as the impacts of wildfire smoke and poor air quality.

Through *Oakridge Air*, LRAPA has maintained an ongoing relationship with community members and leaders, especially those serving the most underserved populations. This is exemplified by the collaborative response to the 2022 Cedar Creek Wildfire, where *Oakridge Air*, partners, and community volunteers provided essential support and resources, such as the distribution of 1,113 HEPA air purifiers to residents in Oakridge and Westfir.

The community has been engaged in many different efforts across the last two and a half decades. The City of Oakridge has received and continues to leverage resources to resolve air quality issues in the community and airshed. LRAPA has also collaborated with the Middle Fork Willamette Watershed Council, Oakridge School District, and Orchid Health in addition to the City of Oakridge to implement air pollution reduction strategies under the *Oakridge Air* banner. These strategies have been tailored to the unique needs of the community and have been developed with direct input from community members and stakeholders.

Oakridge Air has made a concerted effort to effectively engage hard-to-reach and underserved community members when implementing the program. The *Oakridge Air* program directs program benefits to the most vulnerable community members in Oakridge-Westfir while considering multiple avenues, tools, and performance metrics for engaging groups most vulnerable to air quality issues in the greater Oakridge-Westfir area. Under the *Oakridge Air* banner, *Building Community Resiliency to the Hazards of Smoke and Wildfires* will continue to work with existing community groups and leaders including the City of Oakridge Mayor and City Council, the Community Solutions Team, and Nazarene Pastors to help spread the word and build trust in the community.

By using outreach methods that will build trust and inform reluctant hard-to-reach community members, LRAPA has increased overall trust among residents with the highest need. *Oakridge Air* has effectively engaged the community with two-way communication strategies such as communicating via phone, public meetings and events, social media, and asking for feedback during the existing upgrade process. *Oakridge Air* has also utilized one-way communication methods such as printed materials, the *Oakridge Air* and City of Oakridge websites, direct text messaging, and e-newsletter updates to effectively inform the community of smoke and air quality hazards, resources, and preventative/protective measures.

LRAPA's ongoing work with the *Oakridge Air* initiative demonstrates the Agency's dedication to providing direct support and fostering relationships with underserved communities and vulnerable populations in the Oakridge-Westfir area. By involving residents in the decision-making process and focusing on local environmental and public health issues, LRAPA has effectively increased the capacity and resources available to these communities.

d. Project Linkages

The *Building Community Resiliency to the Hazards of Smoke and Wildfires* project will advance environmental justice by strengthening the community's ability to repel fire and endure smoke intrusions from wildfires, which will result in positive health outcomes for a community that has a high percentage of vulnerable populations based on health conditions, income, age, and education. It will also increase economic development opportunities by exploring financially viable methods to utilize forest stock and produce wood products. Such opportunities may reduce urban flight and allow the community to sustain itself and thrive with new opportunities for residents.

Furthermore, the project promotes civil rights by encouraging health equality and offering assistance to those eligible, without bias or discrimination based upon any of the federal, or state protected classes. LRAPA shares the Agency's non-discrimination policy with the public on our website, and has two staff members who act as non-discrimination coordinators to help promote and better understand discrimination, equality, environmental justice, and civil rights throughout offered programs.

Improving health risk communication with the public about wildfire smoke exposure before and during wildfires under the *Oakridge Air* banner may reduce the public health burden of smoke episodes. Implementation of the Oakridge Smoke Community Response Plan through this grant's funding will enhance coordination, communication, and notification of residents and visitors within the area about planned prescribed fire, wildfire and wintertime smoke events, potential smoke and air quality impacts, and recommendations to reduce exposure and mitigate the health impacts of smoke from all sources. By empowering the Oakridge-Westfir area with the funding of this project, the community will be better equipped to develop their own visions of well-being and resilience, advocate for change, and influence public policy.

e. Partners & Collaborators

The success of the *Building Community Resiliency to the Hazards of Smoke and Wildfires* program is rooted in partner and community-based collaborations. The program involves implementing solutions that address environmental and/or public health issues by including the participation of a wide range of collaborators including the region's air protection agency, a community-based nonprofit, the county's public health department, the city representing most of the impacted area identified in the grant application, the state's health authority, local businesses and industries. Each of these partners and participants brings to the program a vast collection of resources, experience, knowledge, and established community relationships.

The existing relationships that each entity contributes to the *Building Community Resiliency to the Hazards of Smoke and Wildfires* project will allow for the collective leveraging of their strengths to promote the increased and sustained wellness of the community as well as promote environmental justice. By working together, the program aims to improve the local air quality, mitigate the effects of smoke and wildfires, encourage awareness of the health impacts of such events, and promote resiliency within the community. This project will accomplish the outlined tasks of the program by using these diverse partnerships from multiple stakeholder groups by focusing on

improving the lives of the community through connecting residents with resources that improve the area's air quality.

Lane Regional Air Protection Agency (LRAPA) - (*Applicant Organization, Project Management*) LRAPA is the local government agency that monitors and regulates ambient air quality in Lane County, Oregon. The Agency is the only local air agency in the state, as the remainder of Oregon's air quality is regulated by the Oregon Department of Environmental Quality (DEQ). LRAPA monitors Lane County's air through its eight regulatory grade ambient air monitoring stations and +90 commercial grade air sensors. The agency protects public health, community well-being, and the environment by administering air programs such as an Outdoor Burning program, Home Wood Heating advisory program, and through the regulation of commercial and industrial businesses with air permits and compliance inspections. The Agency responds to submitted air quality complaints and maintains a historical database of complaints filed. Founded in 1968, LRAPA's authority is granted by an intergovernmental agreement between the Cities of Eugene, Springfield, Cottage Grove, Oakridge, and the Lane County government. By being local, LRAPA ensures important decisions concerning air quality are made by the communities living in Lane County.

LRAPA has a key understanding of the Oakridge airshed and the environmental impacts that come with home wood heating and wildfire smoke. Acting as the project manager and lead agency of *Building Community Resiliency to the Hazards of Smoke and Wildfires*, LRAPA brings many years of successful grant and interagency award management and resources to the project. Through utilizing successful strategies and models, LRAPA's will continue to work towards its goal to improve the lives of residents within the county by improving the air quality.

South Willamette Solutions (SWS) - (*CBO, Home Hardening & Smoke Proofing Coordination, Wood Waste Program Coordination, Subaward*): South Willamette Solutions (SWS) is a community-based nonprofit in Oakridge, Oregon, with the mission to promote, coordinate and support creative solutions that strengthen rural communities, economies and landscapes. SWS implements the *Oakridge Air* project delivery to the community and the Southern Willamette Forest Collaborative (SWFC), which brings together community members, elected officials, community organizations as well as state and federal agencies to find forest management solutions for the Southern Willamette Forest area. As a subawardee, SWS will also provide a Home Hardening Outreach Coordinator (approximately 0.5 FTE) and a Smoke Proofing and Outreach Coordinator (approximately 0.5 FTE), both billed at approximately \$50/hour, to support the implementation of home hardening and smoke proofing interventions in the community.

The organization is committed to diversity, equity, and inclusion as core values, and consistently seeks opportunities to actively recognize and promote principles of fairness and equity, in relation to, and across, intersections of race, age, color, disability, faith, religion, social class, economic class, marital status, ancestry, national origin, citizenship, sex, sexual orientation, ethnicity, gender identity, gender expression, and all other identities represented among our diverse communities. Their commitment to diversity, equity, and inclusion is critical to the environmental conflict resolution work that they engage in and effectiveness of their mission to promote local forest management solutions that foster ecological resiliency and promote socioeconomic health for the Southern Willamette Forest and communities.

SWS serves as the Residential Upgrade Coordinator for two EPA Targeted Airshed Grants (TAG) in the community, administers hazardous fuels reduction projects for Oregon Office of the State Fire Marshal and Oregon Department of Forestry, and coordinates the Community Firewood Program. SWS would expand these services to include home hardening and smoke proofing interventions as well as coordinate the Wood Waste Program Coordinator.

Lane County Public Health (LCPH) - (*Regional Partner, Health Impact Research Project, Subaward*): Lane County Public Health has a mission to promote and protect the long-term health and well-being of individuals, families and the community. They provide services throughout Lane County regardless of age, race, color, sex, religion, national origin, physical or mental disability, sexual orientation, gender identity, and marital status. LCPH plays an integral role within the community by offering various forms of access to health care needs while meeting their vision of

optimal health for all people within Lane County. They are one of the key partners in the ongoing, collaborative Community Health Improvement Plan which identifies priorities and develops strategies necessary to promote behavioral health and wellness across the lifespan of county residents.

Their partnership with LRAPA and participation with the *Building Community Resiliency to the Hazards of Smoke and Wildfires* program through their research and assessment of the health and morbidity impact of wildfire smoke on Eastern Lane County residents will allow for community members to make more informed decisions about health policies in the future. If possible, some of the information assessed and identified from this data will be included in the Best Practices & Lessons Learned Toolkit component of this project, to share with similar communities well beyond Lane County.

City of Oakridge - (*Community Partner, Public Outreach & Promotion Support, In-Kind*): With a council-manager form of government adopted in 1972, Oakridge residents enjoy a strong supportive government. The City is funded by property taxes, franchise and other fees. Special projects are funded through grants and loans. Over the last eight years the City has received almost \$11 million in grants and loans for such projects as a built-out water system, and is committed to continuing to improve the air quality for all its citizens. As a part of this goal and with funding from this application, the City will continue to support the Community Firewood Program while promoting outreach and participation in the *Building Community Resiliency to the Hazards of Smoke and Wildfires* project.

The community of Oakridge (and nearby Westfir) sits at the valley bottom on the western slope of the Cascades, surrounded by the Willamette National Forest. This makes the area especially vulnerable to smoke pollution from old woodstoves, burning unseasoned wood and debris, and wildfires. Oakridge is an ideal location for an environmental grant focused on wildfire mitigation and smoke reduction. The City is situated in a high-risk wildfire area and has implemented proactive measures to reduce the risk of wildfires and smoke impacts, including a community wildfire protection plan, air quality monitors, and fuel reduction projects. The Environmental Justice Government to Government grant would support continued implementation of forest management practices, smoke reduction measures, and community outreach and education programs with promoting awareness of the public health impacts of wildfire and smoke.

Oregon Health Authority (OHA) - (*Regional Partner, Health Impact Research Project Support*): Established in 2009, the Oregon Health Authority (OHA) oversees most of Oregon's health-related programs. Their mission is to ensure all people and communities can achieve optimum physical, mental, and social well-being through partnerships, prevention, and access to quality, affordable health care. One of their major deliverables includes the Climate & Health in Oregon 2020 report, where partners work together to study, prevent and plan for the health effects of climate change.

Their support of the *Building Community Resiliency to the Hazards of Smoke and Wildfires* project will allow for a public health interpretation of data concerning the assessment of air toxics data collected during the 2022 Cedar Creek Fire as well as gathered health data. OHA will share their findings in report form that would include health risk and outcomes data, which would prove beneficial to residents throughout the state in better understanding the health impacts of wildfire smoke.

2.0 Project Activities/Milestone Schedule/Detailed Budget Narrative

a. Project Activities

Wildfire has repeatedly threatened the greater Oakridge-Westfir area in recent years. The City of Oakridge faced mandatory evacuation notices in 2020 and 2022 related to nearby wildfires. Wildfire smoke has made a more regular appearance in the community. In 2022, LRAPA's air quality monitoring in Oakridge documented 37 days between September 1 and October 31 where the 24-hour Particulate Matter 2.5 (PM_{2.5}) measurement was above the EPA's health protective standards. Nine of those days constituted "Hazardous" on the Air Quality Index.

The impacts of wildfires are experienced both outside and inside of the home. Particulate matter and hazardous air pollutants caused by the presence of wildfires have direct detrimental effects on human health. Exposure to both exacerbates pre-existing conditions, potentially contributing to increasing environmental health inequalities. With that in mind, the *Building Community Resiliency to the Hazards of Smoke and Wildfires* project is divided into five specific strategies and tasks to describe the program design: Task 1: Home hardening and smoke proofing homes with wildfire and smoke vulnerabilities; Task 2: Smoke Community Response Plan implementation work and coordination; Task 3: Wood Waste Program Coordinator and Wood Products Feasibility Study; Task 4: Health and Morbidity Assessment and Research of Wildfire Smoke on Eastern Lane County; and Task 5: Best Practices and Lessons Learned Toolkit.

By orchestrating each of these critical tasks, the *Building Community Resiliency to the Hazards of Smoke and Wildfires* project aims to empower the Oakridge-Westfir area in becoming a healthy, thriving community capable of addressing historical and future environmental and public health challenges related to wildfire and smoke.

Task 1: Home hardening and smoke proofing homes with wildfire and smoke vulnerabilities

This grant-funded project builds on existing programmatic infrastructure established in 2020 to implement two EPA funded Targeted Airshed Grants (TAG). These grants, operating under the banner *Oakridge Air*, fund an assortment of home interventions that reduce PM2.5 pollution in the airshed related to wintertime home wood heating. Most of these interventions are uncertified wood stove exchanges, ductless heat pump installations, and small home repair or weatherization upgrades. South Willamette Solutions (SWS) is contracted to perform outreach to residents and to coordinate between homeowners and contractors hired to install these interventions. Under this task of the *Building Community Resiliency to the Hazards of Smoke and Wildfires* grant funding, SWS will expand services offered under *Oakridge Air* to residents in the greater Oakridge-Westfir area to include home hardening and smoke proofing interventions for approximately 8 properties a year over the grant cycle.

Home hardening efforts will vary depending on the needs of a property, and can include a home ignition zone assessment and interventions such as: installing ember-resistant vents to prevent embers from entering the attic or crawlspace; replacing traditional roofing materials with fire-resistant ones; clearing flammable vegetation and debris from around the home; installing fire-resistant exterior siding and windows; creating defensible space around the home by removing flammable materials and vegetation within a certain distance. These measures can help reduce the risk of wildfire damage to homes and improve the chances of the home surviving a wildfire. Home hardening is an imperative step to take in preparing for, adapting to, and surviving wildfire.

Home Hardening Interventions	Defensible Space Interventions	Smoke Proofing Interventions
<p style="text-align: center;"><i>ranked by priority</i></p> <ol style="list-style-type: none"> 1. Install ember-resistant vents. 2. Replace gutters or install gutter guards. 3. Underdeck sealing. 4. Fire-resistant siding and/or windows; stove pipe/chimney repair or spark arrester; replace roofing materials with fire-proof materials. 	<p style="text-align: center;"><i>ranked by priority</i></p> <ol style="list-style-type: none"> 1. Brush removal (plants and ladder fuels); yard debris chipping. 2. Removing or replacing bark mulch. 3. Move fire-hazard debris. 4. Adding or enclosing out-buildings; hazardous junk removal; chemical and hazardous waste disposal. 	<p style="text-align: center;"><i>ranked by priority</i></p> <ol style="list-style-type: none"> 1. Provide air purifiers and/or air filters. 2. Basic air seal of attic, floor, doors. 3. Install a ductless heat pump. 4. Repair air seal windows.
Dollar cap per home for all interventions: \$16,000		

Smoke proofing interventions will also vary depending on the needs of a property. As part of the pre-work audit component, a home air seal test and/or air flow assessment will be performed to better identify the work needed. Smoke proofing interventions can include steps such as: sealing gaps and cracks in the building's exterior to prevent smoke from entering; installing high-efficiency air filters in the building's ventilation system to trap smoke particles; creating a designated "clean room" by providing a high-efficiency air filter to create a safe space for

occupants during a smoke intrusion. Through the mechanisms of smoke proofing, residents will have a greater chance in managing the impacts of wildfire smoke within the home. It can help reduce the health risks associated with smoke inhalation and improve the chances of occupants staying safe during a wildfire event

Through this grant SWS would receive funding included under Task 1 that will support 0.5 FTE for promotion, outreach, and contractor coordination for home hardening interventions and 0.5 FTE for promotion, outreach, and contractor coordination for smoke proofing interventions. South Willamette Solutions (SWS), as a subawardee, will perform initial weatherization audit work, including air sealing, smoke-proofing, and blower door tests, to assess the needs of homes eligible for the home hardening and smoke proofing interventions. Program Coordination Support will be contracted to an individual consultant or firm with relevant project management qualifications. The selection of this contractor will follow LRAPA's procurement policy, which will require an RFP and competitive selection process. This combined role will help strengthen the development and implementation of specific approaches to achieve environmental justice by targeting homes in areas with higher wildfire and smoke vulnerabilities, to help ensure that the individuals most in need receive the necessary resources and interventions to reduce their risks. Smoke proofing homes can significantly improve indoor air quality, reducing the health risks associated with smoke exposure. This can be particularly important for vulnerable populations, such as children, the elderly, and those with pre-existing health conditions, who are more susceptible to the adverse health effects of air pollution.

A matrix will be used to assess the needs and priorities of homes eligible for this portion of the *Building Community Resiliency to the Hazards of Smoke and Wildfires* program. Using Firewise Program criteria coupled with social vulnerability data and housing needs analysis, the home hardening and smoke proofing coordinator will assess and identify those with the greatest needs within the community. With a maximum budget of \$16,000 per home, the coordinator will work with contracted vendors to identify the best ways to improve the structure and provide the best protections. In most cases, homes will receive lower cost items like ember resistant vents, air filters and/or air purifiers as these are often easy deliverables. Larger cost items will identified and installed on an as needed basis.

Priority	Smoke Proofing/ work supplies (via contractor)	Estimated Cost
1	Air purifiers or filters	\$370
2	Basic air seal including attic and floor	\$1,000
2	Door seal	\$500
3	Ductless Heat Pumps	\$5,000
4	Windows	\$150-\$5000

Priority	Home Hardening work/ supplies (via contractor)	Estimated Cost
1	Ember-resistant vents	\$300
2	Gutter replacement or guards	\$1,000
3	Under-deck sealing	\$500-\$1000
4	Fire-resistant siding or windows	\$6000-\$8000
4	Stove pipe / chimney repair or spark arrester	\$250
4	Replacing roofing materials with fire-proof ones	\$10K-\$15K

Priority	Defensible space work/ supplies (via contractor)	Estimated Cost
1	Brush removal (plants and ladder fuels)	\$1,500
1	Yard debris chipping	\$200
2	Removing / replacing bark mulch	\$500

3	Moving hazardous debris	\$200-\$2000
4	Adding or enclosing out buildings	\$200-\$2000
4	Hazardous junk removal	\$200-\$2000
4	Chemical and hazardous waste disposal	\$500-\$2000

The goal of this portion of the grant is to create a model pilot program in the Oakridge-Westfir community that can be replicated in other Pacific Northwest geographic areas where wildfire resiliency/adaptation would benefit the public. Contractors for home hardening and smoke proofing interventions will be a mix of firms and individual tradespeople (carpenters, HVAC technicians, etc.) to complete specific intervention work. SWS will vet and maintain a list of approved contractors that homeowners may select to work on their home for these interventions. Anticipated results include residents being able to remain in their homes for longer periods during a wildfire smoke event; greater likelihood of homes and properties surviving a wildfire; fewer direct health impacts of wildfire smoke and events; overall community emergency preparedness resiliency.

Task 2: Smoke Community Response Plan Implementation Work and Coordination

Funding under Task 2 will broaden SWS' capacity to implement the 2020 Smoke Community Response Plan. Implementation efforts include continued engagement with response plan partners to assure working relationships are productive and strong; coordination with the City of Oakridge and Oakridge School district to implement newly installed community reader boards into the Smoke Community Response Plan; and provide capacity for SWS to respond to wildfire and smoke emergencies experienced by the community. As demonstrated by SWS's 2022 response to a significant and prolonged smoke intrusion that included community messaging, and the distribution of 1,113 state-acquired HEPA air purifiers which distribution to the community incurred significant cost to the nonprofit. This task's funding provides more ability for the nonprofit to react to smoke intrusions and protect public health.

The work performed under this task will build off current communication platforms, strategies, and partnerships that have been successful in establishing the identity of the program and has come to gain a large amount of trust as the program delivers on its promises. This funding will also support the nonprofit's efforts to keep partners of the Smoke Community Response Plan engaged and participating in the plan's communication and coordination work. This project will help empower a disadvantaged and underserved community to make decisive choices to better enable a healthy, thriving community capable of addressing the environmental and public health challenges it has historically faced, as well as current and future challenges.

Anticipated results include providing clarification about when, what, and how to prepare for and respond to wood smoke, wildfire smoke, and prescribed burning smoke events in the community; better promotion of a shared community outreach platform, key messages, and coordination for how to disseminate information regarding fire, smoke, and public health impacts; robust community dialogue, outreach, and engagement to build upon in implementing the Oakridge-Westfir Smoke Community Response Plan.

Task 3: Wood Waste Program Coordinator and Wood Products Feasibility Study

Funding will be provided to SWS as a subaward to contract a Wood Waste Program Coordinator, based in Oakridge, to grow the existing grassroots-led community firewood program (CFP). The coordinator will work approximately 1 FTE and will be billed at approximately \$50/hour. This program, which currently relies on donated labor and trucks, is currently not self-sustaining. One of the larger costs to maintain the program involves transportation. Initial seed funding for equipment and partial support for source stock delivery and delivery costs for subsidized firewood is provided through 2024 by LRAPA's Targeted Airshed Grant (TAG) to enable subsidized firewood. The long-term goal of the CFP is to grow into a public-private partnership that can meet both the subsidized firewood demand as well as the market demand. Every year, the CFP has orders for cord and bundled firewood that it cannot fulfil, mostly because the CFP depends on volunteer labor.

The Southern Willamette Forest Collaborative (SWFC) started the CFP in 2015 to convert logging slash and hazardous waste into subsidized firewood for the community. Oakridge-Westfir does not have natural gas or private firewood vendors, and many homeowners rely on firewood for heat. SWFC, LRAPA and many other partners recognized that the absence of a local firewood vendor meant that many people were buying or gathering green wood, creating unnecessary smoke when home heating. The coordinated effort of SWFC, LRAPA, the City of Oakridge, the Forest Service and a local firefighting company made the CFP possible. The City provides operating space for the CFP, Inbound LLC uses off-season firefighters to process the wood, and SWFC helps to source wood stock through collaborative partnerships. While the CFP is a success, it is not meeting the full potential of the program, nor is it able to naturally grow without guidance.

The wood waste program coordinator will manage the community firewood program and implement programmatic changes that allow it to become self-sustaining and grow. Important steps include securing a reliable source stock of wood from fire recovery work in the Cedar Creek Fire, expanding local markets for cord and bundled firewood, and diversifying production methods and staffing to reduce costs and increase profitability. With a stable supply of source stock, the program will better meet the market demand and generate revenue needed to further invest in the program. Moreover, a steady revenue stream will open grant and loan opportunities for capital investments and emerging innovative biomass products.

Additionally, the wood products feasibility study component would achieve measurable and meaningful environmental results in the Oakridge-Westfir community. Recent wildfires (2017-2022) have damaged forest ecosystems around the Oakridge-Westfir community. A wood product feasibility study will assess potential economically viable methods for addressing fire-affected areas and reducing fuels loads in those areas, particularly for areas recently scorched by wildfires. The Wood Products Feasibility Study will be contracted to a business or firm specialized in biomass/wood products. The selection of this contractor will follow LRAPA's procurement policy. This contracted component will help connect stakeholders and explore feasible uses of wood products that allow the community to pursue future USDA Wood Innovation grant and other funding opportunities.

Task 4: Health and Morbidity Assessment and Research of Wildfire Smoke on Eastern Lane County Communities

Lane County Public Health's (LCPH) will assess the health and morbidity burden in Eastern Lane County by acquiring and analyzing any and/or all of the following data sources: Healthcare Cost and Utilization Project (HCUP), All Payer All Claims (APAC), Electronic Surveillance System for the Early Notification of Community-Based Epidemics (ESSENSE), or the Medical Management Information System (MMIS) data. This assessment will create a profile of existing health conditions, which is in line with the health impact assessment process. The project aims to identify patterns of healthcare utilization, prevalence of smoke-related illnesses, and demographic characteristics of affected populations in Eastern Lane County. This data-driven approach will enable LCPH to better understand the impact of wildfire smoke exposure and other environmental factors on the health of the community and inform targeted interventions to mitigate these risks.

By examining HCUP, APAC, ESSENSE, and/or MMIS data, LCPH will strive to identify patterns of healthcare utilization, prevalence of smoke-related illnesses, and demographic characteristics of affected populations in Eastern Lane County. This comprehensive analysis may provide valuable insights into the specific health challenges faced by the community, allowing LCPH and its partners to develop tailored strategies for addressing these issues.

The benefits of LCPH's work with the HCUP, APAC, ESSENSE, and/or MMIS data will extend beyond Eastern Lane County, as the findings can be used to inform public health policy and practice across Oregon. By sharing their results with other public health agencies and community organizations, LCPH can help to raise awareness about the health risks associated with wildfire smoke and promote the adoption of evidence-based interventions to protect vulnerable populations throughout the state.

Furthermore, the analysis of HCUP, APAC, ESSENSE, and/or MMIS data will enable LCPH to evaluate the effectiveness of existing interventions, such as home hardening and smoke proofing programs, in reducing

healthcare utilization and improving health outcomes. This information can be used to refine these interventions and optimize resource allocation, ensuring that public health efforts are focused where they are needed most.

Additionally, the Oregon Health Authority (OHA) is committed to providing a report of their findings concerning the health risk and outcomes data. LRAPA sampled for Hazardous Air Pollutants in Oakridge from September 1 through October 31, 2022 when 37s days of a 24-hour air quality period reported air quality at or above 35 μm^3 of PM2.5. OHA will publish a report (such as a Health Consultation Letter) that assesses health risk and outcomes of exposure to these pollutants.

Ultimately, LCPH's work with HCUP and other data sources will contribute to a better understanding of the health and morbidity burden in Eastern Lane County and beyond. By leveraging this knowledge, LCPH can help to build more resilient communities that are better equipped to confront the challenges of wildfire and smoke exposure, promoting the health and well-being of all Oregon residents.

Task 5: Best Practices and Lessons Learned Toolkit

The programmatic undertakings described under this grant application are vital components of a robust effort to safeguard communities vulnerable to wildfires. Across the Pacific Northwest, there are many communities with significant need to conduct home hardening and smoke proofing efforts. Through the *Building Community Resiliency to the Hazards of Smoke and Wildfires* program funding, a contracted coordinator will serve as a program analyst responsible for documenting progress made and challenges encountered implementing home hardening and smoke proofing interventions in the greater Oakridge and Westfir area. The development of the Best Practices Toolkit will be contracted to either a firm or individual consultant with expertise in community environmental programs. The selection of this contractor will follow LRAPA's procurement policy, which will require an RFP and competitive selection process. A deliverable from this effort is the publication of a "Best Practices Toolkit" and presentation roadshow to interested communities and jurisdictions like Oakridge-Westfir so they might implement similar programs locally.

Incorporated into this presentation roadshow are some of the Health and Morbidity Assessment and Research of Wildfire Smoke on Eastern Lane County Communities report findings. This information will emphasize potential health consequences of wood smoke on communities, encouraging further coordination and action by local partners in rural communities, similar to the greater Oakridge-Westfir area. By sharing this information with audiences outside of the Oakridge-Westfir area, the *Building Community Resiliency to the Hazards of Smoke and Wildfires* model can be successfully mirrored and applied elsewhere for the betterment of the general public.

Potential Challenges

Even with the best intentions, projects often face challenges throughout the design, implementation, and assessment stages. Outlined below are a few obstacles project management could face during the implementation of this grant:

- *Timely data collection and analysis:* The project involves assessing health and morbidity burden in Eastern Lane County using various data sources. There could be challenges in obtaining relevant data in a timely manner from Preferred Provider Organizations (PPOs), as well as in effectively analyzing and interpreting it.
- *Implementation of interventions:* The project involves targeted interventions to reduce wildfire smoke exposure and improve health outcomes for vulnerable residents. There could be logistical challenges in implementing these interventions, such as coordinating efforts among different organizations and community members.
- *Limited contractor interest and selection:* There may be challenges related to finding and selecting qualified contractors to carry out the targeted interventions, such as improving air seals in homes. Limited interest or availability of contractors in the area could result in delays or affect the quality of the work performed. It will be important to proactively engage with potential contractors and create a competitive selection process to ensure the success of the project.
- *Ensuring sustainability:* Ensuring that the project's outcomes have a lasting impact on the community may

be challenging, especially if long-term funding and support are not guaranteed. It will be crucial to explore ways to ensure the project's sustainability, such as identifying potential revenue streams or integrating the project into existing community programs.

- *Adapting to unforeseen circumstances:* Unexpected events, such as extreme weather conditions or changes in funding, could affect the project timeline or even the project's overall success. It will be important to remain flexible and adapt to these circumstances as they arise.

b. Timeline and Milestones

Task	2024	2025	2026
Residential Home Hardening and Smoke Proofing	<ul style="list-style-type: none"> • Outreach and education campaign. • Finalize selection process and matrix. • Identify homes and areas needing most urgent interventions. • Incorporate home hardening and smoke proofing into the existing <i>Oakridge Air</i> application and selection process. • Complete home hardening and smoke proofing on approximately 5 properties. 	<ul style="list-style-type: none"> • Ongoing support from completed projects, including maintenance and upkeep guidance. • Expand outreach efforts. • Complete home hardening and smoke proofing on approximately 10 properties. 	<ul style="list-style-type: none"> • Ongoing support from completed projects, including maintenance and upkeep guidance. • Complete home hardening and smoke proofing on approximately 10 properties. • Explore potential funding sources and partnerships for the continuation of the project beyond the initial grant period.
Smoke Community Response Plan implementation and Coordination	<ul style="list-style-type: none"> • Develop and disseminate public education materials on the Smoke Community Response Plan, including guidelines for individuals and families to follow during smoke emergencies. 	<ul style="list-style-type: none"> • Assess the effectiveness of the communication and alert system, making improvements as needed to ensure timely and accurate information dissemination during smoke emergencies. • Expand community engagement efforts to include vulnerable populations and ensure their specific needs are addressed in the response plan. Ongoing support from completed projects, including maintenance and upkeep guidance. 	<ul style="list-style-type: none"> • Evaluate the success/impact of the Smoke Community Response Plan implementation, including improvements in community preparedness, response capacity, and health outcomes during smoke emergencies. • Explore potential funding sources and partnerships for the continuation of the project beyond the initial grant period.
Wood Waste Program Coordinator	<ul style="list-style-type: none"> • Hire a qualified Wood Waste Program Coordinator. 	<ul style="list-style-type: none"> • Provide discounted seasoned firewood to low-income, senior, or disabled residents. 	<ul style="list-style-type: none"> • Provide discounted seasoned firewood to low-income, senior, or disabled residents.

<p>& Wood Products Feasibility Study</p>	<ul style="list-style-type: none"> • Provide discounted seasoned firewood to low-income, senior, or disabled residents. • Develop a Request for Proposal (RFP) and initiate the Wood Products Feasibility Study, selecting a suitable contractor to carry out the study. 	<ul style="list-style-type: none"> • Develop an implementation plan for the identified wood product opportunities, including necessary investments, infrastructure, and partnerships. 	<ul style="list-style-type: none"> • Begin piloting the most promising wood product initiatives based on the feasibility study findings, monitoring their progress and impact. • Explore potential funding sources and partnerships for the continuation of the project beyond the initial grant period.
<p>Health Impact Research Project of Wildfire Smoke Air Toxic Emissions</p>	<ul style="list-style-type: none"> • Develop a research plan and methodology for the Health and Morbidity Assessment, including data sources, analysis methods, and key research questions. • Begin collecting and analyzing the HCUP, APAC, ESSENSE, and/or MMIS data and other relevant sources to assess health and morbidity in Eastern Lane County. 	<ul style="list-style-type: none"> • Complete the initial Health and Morbidity Assessment, synthesizing the findings into a comprehensive report with actionable recommendations for policy and intervention improvements. • Incorporate the assessment findings into the Best Practices & Lessons Learned Toolkit funded by this grant project. 	<ul style="list-style-type: none"> • Share the project's results and best practices with other communities and stakeholders interested in addressing wildfire smokes health impacts. • Share the findings of our analysis with other public health agencies and community organizations, raising awareness about the health risks associated with wildfire smoke and promoting the adoption of evidence-based interventions.
<p>Best Practices & Lessons Learned Toolkit</p>	<ul style="list-style-type: none"> • Develop a plan and outline for the Best Practices & Lessons Learned Toolkit, identifying key focus areas and case studies based on the project's experiences and achievements. • Initiate the process of gathering data, stories, and insights from project participants and stakeholders to inform the toolkit's content. 	<ul style="list-style-type: none"> • Gather data and findings from LCPH and/or OHA regarding the Health Impact Research Project component and incorporate any pertinent information into the Toolkit. • Complete the Best Practices & Lessons Learned Toolkit, including case studies, practical guidance, and recommendations for other communities and stakeholders interested in addressing wildfire smoke and related challenges. • Launch the toolkit and promote it to relevant audiences, including local and regional governments, community organizations, and other stakeholders involved in wildfire resilience and public health initiatives. 	<ul style="list-style-type: none"> • Continue the presentation roadshow, expanding the reach to more communities and stakeholders interested in implementing home hardening, smoke proofing, and related initiatives.
<p>Reporting to Stakeholders</p>	<ul style="list-style-type: none"> • Quarterly reporting (Jan-Mar, Apr-June, July-Sept, Oct-Dec) 	<ul style="list-style-type: none"> • Quarterly reporting (Jan-Mar, Apr-June, July-Sept, Oct-Dec) 	<ul style="list-style-type: none"> • Quarterly reporting (Jan-Mar, Apr-June, July-Sept, Oct-Dec)

c. Itemized Budget Sheet/Budget Narrative – See Budget Attachment.

3.0 Environmental Results – Outputs, Outcomes, Performance Measures

a. Environmental Results (Logic Model) – See Logic Model Attachment.

b. Performance Measures and Plan

For every task, program area and performance measure, a templated reporting spreadsheet will be used that feeds into the EPA quarterly reporting, ensuring it meets EPA guidelines and best accounting practices. LRAPA and project partners will evaluate program areas on a quarterly basis to ensure that benchmarks are being attained (i.e., projected number of home hardening and smoke proofing were achieved). This will be completed using meetings, shared information, and performance check-ins. LRAPA will continue to report quarterly to EPA throughout the life of the grant in a rolled-up template of the performance. A brief narrative will describe what we are learning and where we are adjusting our efforts.

Overseeing project partners, subrecipients, and/or contractors and vendors

- Annual progress reports and meetings with data on activities listed in tracking and reporting actual accomplishments.

Tracking and reporting project progress on expenditures, purchases, and other fiscal activities

- Real-time and quarterly reports of program dollars expended by program task.
- Final reporting at the conclusion and completion of the grant period.

Tracking and reporting actual accomplishments versus proposed outcomes and milestones

- Number and % of homes which have undergone home hardening interventions (real-time/quarterly).
- Number and % of homes which have undergone smoke proofing interventions (real-time/quarterly).
- Develop a project timeline with specific milestones and target completion dates for each activity.
- Conduct annual internal reviews to assess the status of each activity and outcome, identifying areas of success and areas requiring improvement.
- Organize regular meetings (monthly or bi-monthly) with project team members and stakeholders to discuss progress, share updates, and address any challenges or concerns.
- Document any deviations from the original plan, along with the reasons for these changes and any resulting impacts on the project's overall goals.
- Prepare interim progress reports, detailing accomplishments, challenges, and lessons learned for each milestone and outcome.
- Create a comprehensive final report, comparing actual accomplishments to proposed outcomes and milestones, and highlighting the project's overall success and areas for future development.
- Share reports and findings with stakeholders, funding sources, and relevant parties to demonstrate transparency, accountability, and the project's overall impact.

Measuring and reporting on human health

- Publication of health impact research project assessing pollutant makeup of Air Toxics Monitoring of wildfire smoke in Oakridge.

c. Sustainability Plan & Environmental Justice Integration

There are several aspects of the *Building Community Resiliency to the Hazards of Smoke and Wildfires* project that support and promote sustainable environmental justice. One component includes devising a best practices and lessons learned toolkit from information and data gathered during the span of this undertaking. The publication of the “Best Practices Toolkit” and presentation roadshow to interested communities and jurisdictions like Oakridge-Westfir will hopefully encourage adoption and implementation.

Additionally, the wood products feasibility study component would provide measurable and meaningful environmental results for the community which in turn could be used as a model elsewhere throughout Oregon and the Pacific Northwest. The study will assess potential economically viable methods for addressing fire-affected areas and reducing fuels loads in those areas, particularly for areas recently scorched by wildfires.

The research component of this project, aided by LCPH, will enable a better understanding of the impact of wildfire smoke exposure and other environmental factors on the health of the community. The results of this assessment will help identify and inform targeted interventions to mitigate these risks. This need for strategies to improve indoor conditions is an environmental justice issue as Oakridge is in the upper percentile for vulnerable populations – health conditions, income, age and education. The project aims to identify patterns of healthcare utilization, prevalence of smoke-related illnesses, and demographic characteristics of affected populations in Eastern Lane County. Through sharing this information with the public, community members and leaders will be better able to make important health policy decisions in the future.

This project will effectively address disproportionate impacts on the community by simultaneously improving health and economic outcomes. Empowering similar communities by providing a template to smoke proof and harden homes, implement a smoke community response plan in their area, and sharing best practices gathered throughout the life of the project will promote health equity and environmental justice.

4.0 Programmatic Capability

a. Organization Experience & Relationship Building

LRAPA celebrated its fiftieth anniversary as the local air quality control agency in Lane County, Oregon in 2018. Over the years LRAPA has received numerous Federal and State grants and has consistently followed the terms set by the grantee agency for all the projects in which LRAPA has been involved. Among the projects are:

- Semi-annual CAA-105 EPA Base Grant and LRAPA is its first year of the 2022-2024 program cycle.
- 2019 Oakridge Targeted Airshed Grant (a five-year program and a total of \$4,938,190 in EPA funds) that started on September 1, 2019, and will continue through August 31, 2024.
- 2021 Oakridge Targeted Airshed Grant (a five-year program and a total of \$2,739,425 in EPA funds) that started on January 1, 2022, and will continue through August 31, 2026.
- City of Portland Sunday Walkway Project (EPA)
- Clean Fuel for Bridges Program (EPA)
- Clean Fuel for School Busses Program (EPA)
- Everybody Wins Program to install auxiliary power units (APUs) in trucks on the I-5 corridor to act as a power source during idling (EPA, State of Oregon, and other sources)
- Northwest Regional Ethanol Distribution Network (DOE)

Under this grant, LRAPA's primary focus will be on fostering strong relationships with underserved communities to ensure that their needs and perspectives are considered throughout the project. A key strategy in achieving this is active community engagement, which involves incorporating their voices and concerns in the planning, implementation, and evaluation phases of the project.

Collaboration with local organizations, nonprofits, and community leaders is crucial to leverage their expertise and establish a robust support network for the project. Accessible communication is a critical aspect, and LRAPA will provide project information, resources, and services in multiple languages and formats to reach a wider audience. Outreach and educational efforts will target raising awareness about the project, its objectives, and benefits for underserved communities. These initiatives will be accompanied by continuous feedback collection from community members and stakeholders, allowing us to make improvements based on their insights.

Capacity building is an essential component of this project's approach, as we aim to support local organizations and leaders in developing their skills and resources to better serve and advocate for their communities. Inclusive community events and meetings will be organized to foster a sense of connection and belonging among community members.

LRAPA's long-term commitment to working with underserved communities is vital in establishing trust and rapport. Transparent reporting on project updates, successes, and challenges will be shared with the community, fostering a sense of accountability and shared ownership over the project's outcomes. Through these strategies, LRAPA will continue to build meaningful relationships with underserved communities through the *Building Community Resiliency to the Hazards of Smoke and Wildfires* project.

b. Staff Experience/Qualifications of Project Manager

Travis Knudsen – Grant Project Manager

Travis Knudsen is the Executive Director of the Lane Regional Air Protection Agency (LRAPA) in Springfield-Eugene, Oregon, responsible for overall direction of the regional air quality agency for Lane County since May of 2024. Prior to his executive director role, he served as LRAPA's Public Affairs manager where he was the principal spokesperson for the agency and coordinates all marketing, strategic communication and education. He has been involved in the implementation of the 2019 Targeted Airshed Grant awarded to LRAPA. He works on PM2.5 matters ranging from wildfires to winter woodsmoke. His expanded communication strategies include but are not limited to text message and email alerts for woodsmoke curtailment days, social media geotag marketing, website content management, and physical brochures, flyers, and outreach materials.

Christina Ward – Grant Finance Manager

Christina Ward is the Finance Manager at LRAPA, joining in March of 2024. She holds over 15 years of experience in finance, grant management, and nonprofit administration. Her background includes leadership roles in organizations such as Mobility International USA, Siuslaw Watershed Council, and 501tech. Christina's expertise spans budgeting, financial reporting, grant writing and management, and donor relations. With her strong financial acumen and attention to detail, she is well-equipped to oversee the financial aspects of the Building Community Resiliency to the Hazards of Smoke and Wildfires project, ensuring fiscal responsibility and adherence to grant requirements throughout its duration.

Lance Giles – Grant Data Quality Administrator

Lance is the Air Monitoring and Data Quality Coordinator at LRAPA. In his 25 years at LRAPA, Lance has been involved in the operation, maintenance and calibration of ambient air monitoring equipment and sites. Lance has also been involved in many short- term air quality studies to validate monitoring sites and to test new and emerging technologies. Lance currently oversees the air monitoring section of LRAPA and is responsible for the collection and quality assurance of the data collected from the air monitoring that occurs in LRAPA's jurisdiction.

c. Expenditure of Awarded Grant Funds

LRAPA is the local air quality agency for Lane County, Oregon and follows all the requirements that are deemed necessary as a local government entity in terms of budgeting and procurement policies. LRAPA follows the compliance requirements as a local government entity in the State of Oregon. Over the years LRAPA has received numerous Federal and State grants and it has always followed the terms set by the grantee agency. Through the use of ongoing weekly oversight, monthly check-ins, and quarterly reporting, LRAPA will work in tandem with grant partners and collaborators to successfully administer and deliver program outcomes.

5.0 Past Performance

1.EPA Section 105 CAA-Base Grant # 98055709

Total Project: \$3,237,770 with an EPA share of \$1,199,819.00

- Project Period: 07/01/2016 – 12/31/2018
- CFDA: 66.001 Air Pollution Control Program Support

- This project closed on target and has met the management requirements of the agreement.

2. EPA Section 105 CAA-Base Grant # 98055710

- Total Project: \$3,626,000 with an EPA share: \$1,224,215
- Project Period: 07/01/2018 – 06/30/2020
- CFDA: 66.001 Air Pollution Control Program Support
- This project closed on target and has met the management requirements of the agreement.

3. EPA Section 105 CAA-Base Grant # 98055711

- Total Project: \$4,334,710 with an EPA share: \$1,222,310
- Project Period: 07/01/2020 – 06/30/2022
- CFDA: 66.001 Air Pollution Control Program Support
- This project closed on target and has met the management requirements of the agreement.

4. EPA Section 105 CAA-Base Grant # 98055712

- Total Project: \$4,707,690 with an EPA share: \$1,280,891
- Project Period: 07/01/2022 – 06/30/2024
- CFDA: 66.001 Air Pollution Control Program Support
- This project is currently on schedule and meeting the management requirements of the agreement.

5. EPA 2018 Targeted Air Shed Program Grant # 01J66101

- Total Project: \$4,938,190
- Project Period: 09/01/2019 – 08/31/2024
- CFDA: 66.956 Targeted Air Shed
- This project is currently on schedule and meeting the management requirements of the agreement.

6. EPA 2021 Targeted Air Shed Program Grant # 02J04301

- Total Project: \$2,739,425
- Project Period: 01/01/2022 – 08/31/2026
- CFDA: 66.956 Targeted Air Shed
- This project is currently on schedule and meeting the management requirements of the agreement.

6.0 Quality Assurance Project Plan (QAPP)

Based upon the answers to Appendix G of the EJG2G RFP, LRAPA will develop a QAPP prior to the implementation of the *Building Community Resiliency to the Hazards of Smoke and Wildfires* project's activities.

Section 5: Budget

Budget Detail Narrative - EJG2G Application

Building Community Resiliency to the Hazards of Smoke and Wildfires

a. Budget detail

The following budget detail outlines the allocation of funds for the *Building Community Resiliency to the Hazards of Smoke and Wildfires* project. This comprehensive budget reflects the diverse activities and initiatives involved in the project, ensuring resources are allocated effectively and efficiently.

LRAPA is the local air quality agency for Lane County, Oregon and follows all the requirements that are deemed necessary as a local government entity in terms of budgeting and procurement policies. LRAPA follows the compliance requirements as local government entity in the State of Oregon. Over the years LRAPA has received numerous Federal and State grants and has always followed the terms set by the grantee agency.

Greater cost detail is included in the project budget materials accompanying this submission and follows the EPA direction on budget categories. LRAPA is opting for the de minimis indirect cost rate of 10% for this project.

Total Project Budget - \$997,622

1. Personnel

Funding will support staff or project coordination, outreach, and technical assistance. This includes a LRAPA personnel, Home Hardening and Smoke Proofing Coordinator, Smoke Community Response Plan Coordinator, Wood Waste Program Coordinator, and Health Impact Research Project roles. The personnel budget also covers salaries and fringe benefits for the project team. LRAPA is opting for the de minimis indirect cost rate of 10% for this project.

2. Subawards & Contracts

This allocation will cover subawards to South Willamette Solutions and Lane County Public Health for specific tasks and services, as well as contracts with external consultants or organizations for activities like the Best Practices Toolkit and Wood Products Feasibility Study.

3. Equipment & Supplies

The equipment and supplies budget cover necessary tools and materials for home hardening and smoke proofing interventions, as well as resources for implementing the Smoke Community Response Plan. This includes items like air purifiers, weatherization materials, fire-resistant materials, and other relevant equipment.

4. Travel & Training

Funding will support travel and training expenses for LRAPA and SWS. This includes costs associated with attending conferences, workshops, and training sessions relevant to the project's goals, as well as costs for the Best Practices & Lessons Learned presentation roadshow. The travel budget is intended to provide support for LRAPA to engage communities as we provide a "roadshow" of at minimum three presentations of the best practice toolkit developed under this grant funding. The targeted communities and times of travel are not yet identified or planned. A portion of this travel is also intended to participate in EPA hosted conferences, specifically the EPA Residential Wood Heating Training Workshop and Smoke Management in the Northwest conference. Personnel traveling under this budget category are exclusively project staff from LRAPA and SWS.

5. Administration & Overhead

The administration and overhead budget covers indirect costs associated with managing and implementing the project, such as office space, utilities, insurance, and general administrative support. This component will support the monitoring and evaluation of project outcomes, including data collection and analysis, performance measurement, and the preparation of progress reports and other documentation required by the Environmental Protection Agency.

Fringe benefits are estimated to average 27% and include: Medical, dental and vision insurance (variable, based on family status and agency group experience rating); Pension fund contribution (8% of salaries); Social Security (7.65% of salaries); Workers Compensation Insurance (variable, based on agency group experience rating); Unemployment insurance (0.1% of salaries); Retirement plan and cafeteria benefit administration (average monthly fee of \$300). Paid Time Off (PTO) is included in personnel costs.

By allocating funds across these categories, the *Building Community Resiliency to the Hazards of Smoke and Wildfires* project will ensure a comprehensive approach to addressing the hazards of smoke and wildfires, promoting community resiliency, and environmental justice.

Please refer to Task 1 under Section 2.a for potential home hardening and/or smoke-proofing activities and associated costs.

Personnel, and Fringe Benefits: (\$104,554)

- > LRAPA personnel: \$82,326
- > Fringe Benefits: \$22,228

Travel: (\$5,000)

While the specific travel details for three “roadshow” presentation of the best practice toolkit are not yet known, the following estimates provide approximate detail. This travel also affords LRAPA’s participation in EPA hosted conferences of EPA’s Residential Wood Heating Training Workshop, and the Smoke Management in the Northwest conference in Seattle Washington.

- > Mileage: Estimated at federal rate of \$0.67 per mile for 1,677 miles = \$1,124
 - For regional roadshow presentations.
- > Lodging: Estimated at \$232/night x 2 nights x 3 years = \$ 1,392
- > Per diem (meals): \$76/day x 3 days x 3 years = \$684
- > Airfare: Estimated at \$500 roundtrip x 1 personnel x 3 years = \$1,500
- > Ground transportation: Estimated at \$100 per trip x 3 trips = \$300
 - Transportation to and from airport.

Equipment (\$0)

- > None at this time

Supplies (\$27,650)

- > Air Filters: 90 units at \$85 each, totaling \$7,650
- > Air Purifiers: 50 units at \$400 each, totaling \$20,000

Contractual (\$486,302)

- > Wood Waste Feasibility Study: \$5,000
- > Home Hardening Program Contractual Work (defensible space): \$156,250
- > Smoke Proofing Program Contractual Work (home sealing): \$156,250
- > Window Sealing & Weatherization: \$84,802

- › Best Practices Toolkit & Facilitation: \$37,000
 - *Determined through the competitive bidding process, likely ranging from \$50-130/hour for consulting services. If hiring individual consultants, the maximum hourly rate will be \$91.95. For firms or companies, rates will be determined through the competitive bidding process without this specific cap.*
- › Program Coordination & Collaboration Support: \$47,000
 - *Determined through the competitive bidding process, likely ranging from \$50-130/hour for consulting services. If hiring individual consultants, the maximum hourly rate will be \$91.95. For firms or companies, rates will be determined through the competitive bidding process without this specific cap.*

Note: The grantee will determine whether to hire individual consultants or firms through a competitive bidding process.

Other (\$328,185)

- › SWS participation in best practice toolkit and roadshow presentations and EPA hosted Smoke Management in the Northwest conference in Seattle Washington, for three years: \$3,576
 - Mileage: Estimated at federal rate of \$0.67 per mile for 1,677 miles = \$1,124
 - For regional roadshow presentations.
 - Lodging: Estimated at \$232/night x 2 nights x 3 years = \$1,392
 - Per diem (meals): \$76/day x 3 days x 3 years = \$684
 - Airfare: Estimated at \$500 roundtrip x 1 personnel x 3 conferences years = \$1,500
 - Ground transportation: Estimated at \$100 per trip x 3 trips = \$300
 - Transportation to and from airport.
- › Smoke Emergency Response Plan Implementation: \$11,185
 - *Subaward to South Willamette Solutions*
- › Health Impact Research Project: \$30,000
 - *Subaward to Lane County Public Health*
- › Initial Weatherization Audit (pre-home hardening & smoke-proofing): \$12,000
 - *Subaward to South Willamette Solutions*
- › Wood Waste Program Coordinator (WWPC): \$120,000
 - *Subaward to South Willamette Solutions; Approx. 0.5 FTE, billed at approx. \$50/hour*
- › Home Hardening Outreach Coordinator: \$75,000
 - *Subaward to South Willamette Solutions; Approx. 0.5 FTE, billed at approx. \$50/hour*
- › Smoke Proofing and Outreach Coordinator: \$75,000
 - *Subaward to South Willamette Solutions; Approx. 0.5 FTE, billed at approx. \$50/hour*

Indirect Cost

- › Indirect Rate (15.00%): \$45,931