Council Business Meeting

January 21, 2020

| Agenda Item | Approval of Department of Environmental Quality Prescribed Fire, Smoke & Public Health Community Response Plan Grant Application | | |
|-------------|--|-------------------------|--|
| From | Chris Chambers | Wildfire Division Chief | |
| Contact | Chris.Chambers@ashland.or.us; (541) 552-2066 | | |

SUMMARY

The Fire Department is seeking approval to apply for two related Department of Environmental Quality (DEQ) grants to:

- 1. Create a Community Response Plan for prescribed fire smoke (\$25,000).
- 2. Implement a pilot project to mitigate the impacts of prescribed fire and wildfire smoke on Ashland's vulnerable populations (\$75,000).

POLICIES, PLANS & GOALS SUPPORTED

City Council Goal: Address Climate Change

City Council Goal: Reduce Wildfire and Smoke Risk

City Plans: Ashland Community Wildfire Protection Plan, 2016 Ashland Forest Plan, Ashland Climate Energy Action Plan, Ashland Natural Hazard Mitigation Plan

PREVIOUS COUNCIL ACTION

None

BACKGROUND AND ADDITIONAL INFORMATION

Prescribed burns are well documented as the most important step in community and natural resource wildfire protection. Burns closest to homes have the greatest protection benefit, as well as the greatest chance of putting smoke into town. As a primary partner in the Ashland Forest Resiliency Project and forestland owner of over 1,100 acres, the City has a vested interest in the safety of our citizens and watershed and have engaged in an increasingly important and extensive prescribed burn program since the late 1990's. Last year, the Oregon Legislature updated the Oregon Smoke Management Plan (SMP) to improve the management of prescribed burning as a forest management and protection practice and to minimize emissions from prescribed burning consistent with the air quality objectives of the federal Clean Air Act and the State Implementation Plan. Smoke impacts from prescribed fire activities regulated under the SMP must not exceed specific thresholds or are considered intrusions and require reporting, which is time-consuming and can limit future burn opportunities. Formalizing the communication and coordination efforts taking place by creating a Community Response Plan (as proposed in this grant request) will increase the opportunities to conduct prescribed fire in the Ashland Watershed and surrounding community by creating an exemption to the DEQ's 1-hour smoke intrusion rule.

The goals of developing the Community Response Plan (\$25,000) are to:

- identify and describe smoke-vulnerable populations Ashland
- describe the means of communications and notification to the public, vulnerable populations and partners regarding fire, smoke impacts and air quality
- identify options to protect public health and mitigate exposure to smoke and,
- outline a coordination and communication plan for the City of Ashland



The pilot program (\$75,000) would implement goals laid out in the planning phase, funding the mitigation of smoke impacts on Ashland's most vulnerable citizens (e.g. senior citizens, residents with chronic diseases, children, and unhoused).

Ashland has been a national model through the creation of the SmokeWise Ashland program, done in partnership with the Ashland Chamber of Commerce, Asante Ashland Community Hospital, Jackson County Health and Human Services, and the Oregon Shakespeare Festival. Many facilities like Southern Oregon University and the Ashland Family YMCA made significant facilities upgrades after the first SmokeWise workshop held in 2018. This DEQ grant will allow us to further our efforts by not only stitching together various efforts already in place under the banner of SmokeWise Ashland, but it would allow us to directly improve the health and well-being of our most vulnerable populations by partnering with local service organizations, the Ashland Senior Center, and health care providers. We also plan to identify public clean air spaces where any resident, visitor, or those in the unhoused population can find respite from smoke, whether from prescribed burns or during summer wildfires.

FISCAL IMPACTS

This grant requires a ten percent local match, which can be either cash and/or in-kind time. The Fire Department already has budgeted grant funds from the Fire Adapted Communities Learning Network, of which \$6,800 is already dedicated to separate deliverables that meet this DEQ grant's objectives. The remaining match requirement will be easily met through City staff time and time contributed by our partner groups to oversee and implement this grant. This grant funding satisfies a need to help our community prepare for smoke that would otherwise go unfunded.

STAFF RECOMMENDATION

Staff recommends that Council approve of the Fire Department's request to apply for the DEQ Smoke and Public Health Grant.

ACTIONS, OPTIONS & POTENTIAL MOTIONS

I move to approve the Fire Department's request to apply for 2020 Department of Environmental Quality Smoke Management Community Planning and Mitigation Grants in the amount of \$100,000 total.

REFERENCES & ATTACHMENTS

Attachment 1: DEQ Request for Grant Proposals Attachment 2: City of Ashland Grant Application



Smoke Management - Community Planning and Mitigation Projects

Request for Proposals (RFP)

Informational webinar: December 6, 2019
Date of Issue: December 9, 2019
Closing Date: January 31, 2020, 5:00 pm Pacific

Contact: Rachel Sakata

SECTION 1: GENERAL INFORMATION

1.1 BACKGROUND

The Legislature established the Oregon Smoke Management Plan (SMP) 1) To improve the management of prescribed burning as a forest management and protection practice; and 2) To minimize emissions from prescribed burning consistent with the air quality objectives of the federal Clean Air Act and the State Implementation Plan developed by DEQ. The program is implemented by the Oregon Department of Forestry (ODF), with rules being promulgated by the Oregon Board of Forestry (BOF). The Oregon Department of Environmental Quality coordinates with ODF on program management and development, and incorporates rules into Oregon's State Implementation Plan, for approval by the Oregon Environmental Quality Commission (EQC).

Attachment A to this RFP represents the current list of approved SSRAs in Oregon. Communities can request to be designated as an SSRA or DEQ and ODF can nominate a community. ODF meteorologists review burn plans and weather conditions to determine the best days to burn while protecting public health and SSRAs. Smoke impacts from prescribed fire activities regulated under the SMP must not exceed specific thresholds within the plan. Impacts that exceed thresholds in the SMP are considered intrusions and require reporting of the event using a department form and dissemination to a pre-determined list of interested parties. When an intrusion exceeds the National Ambient Air Quality Standard an after-action review is required between ODF, DEQ, and the burner to determine management actions to prevent this type of intrusion from occurring again.

In 2017, ODF and DEQ, in collaboration with the Oregon Health Authority (OHA), completed a review of the SMP. Through the rulemaking process, the three agencies received input from members of the Smoke Management Review Committee and from the public during a number of public hearings throughout Oregon and a public comment period. Many stakeholders sought

more opportunities to use prescribed fire to reduce overall wildfire risk to their communities. The agencies also received comments requesting more organized and proactive communications to accompany proposed increases in the use of prescribed fire. ODF, DEQ, and OHA developed recommendations for the BOF and EQC to increase the opportunities for prescribed fire use by adjusting the thresholds for intrusions in SSRAs. The agencies also recommended communities to protect the most vulnerable through the development of community response plans for prescribed fire smoke. In 2019, the EQC and the BOF approved these changes to the SMP.

In the 2019 Legislative Session, DEQ received \$250,000 of general funds to assist Oregon communities with 1) the development of community response plans and 2) the evaluation and implementation of strategies to mitigate the impacts of increased prescribed fire smoke on vulnerable populations.

1) Community Response Plan Development

Communities throughout Oregon are at various stages of planning and preparing for the potential impacts from prescribed fire smoke. Some communities have already begun planning activities for prescribed fire smoke and have well-established response plans. In these instances, communities utilized their Forest Collaborative as a place to hold discussions and planning activities. In other communities, there may be other preestablished groups, or the need to provide a venue for these conversations to take place. In all instances, we have seen the most success when those conducting burning activities and those tasked with protecting public health come together to plan for potential impacts from prescribed fire smoke and develop methods for informing their community on these activities. This grant opportunity will assist with local planning efforts, for those just beginning and those far along in the planning process.

2) <u>Mitigation Planning and Implementation</u>

Impacts from prescribed fire smoke are typically for short durations, spanning hours to days. Many factors impact the amount of smoke that enters a community and how long it will remain, such as weather conditions during and after a burn, and the geography of the region. Some local public health agencies have begun efforts to evaluate potential mitigations from wildfire smoke, but those strategies may or may not be useful in mitigating prescribed fire smoke.

This grant opportunity is designed with the recognition that our communities are at various stages in the planning process, with an emphasis on supporting SSRAs in the development of community response plans. This Request for Proposal seeks to make measurable progress in planning for and mitigation of prescribed fire smoke on the health of communities.

1.2 CALL FOR PROPOSALS

The DEQ, with support from the ODF and OHA, are seeking proposals from local governments, in collaboration with their local public health agency, to develop community response plans, evaluate the potential for the mitigation of public health impacts on those most vulnerable in their communities, and implement mitigation strategies.

DEQ expects to award multiple contracts resulting from this RFP. Projects must be conducted within the timeframe of **March 1, 2020 through March 30, 2021**.

Approximately \$175,000 of the total grant funds will be awarded in \$25,000 or less increments for community response plan development and the identification of potential mitigation strategies that could be deployed to protect the public and most vulnerable from prescribed fire smoke.

One grant of **\$75,000** will be awarded for a pilot project that furthers community response plan development and implementation, evaluates existing mitigation efforts in their community, and implements a pilot mitigation project focused on protecting vulnerable populations from prescribed fire smoke and to identify potential future projects.

Additional monies may be awarded in excess of the limits stated above if either the small, single projects or the larger, community projects do not reach the maximum total cap of \$250,000, based on the number of qualified proposals received and selected.

A Proposer may apply for either grant opportunity or both opportunities. If Proposers choose to seek both grant opportunities, their application must contain the required elements for each individual opportunity as described above.

1.3 SCHEDULE

The table below represents a tentative schedule of events.

| Event | Date | Time | |
|----------------------------------|-------------------|-----------|--|
| Informational webinar | December 6, 2019 | 1:00 p.m. | |
| RFP Date of Issue | November 9, 2019 | | |
| Closing (Proposals Due) | January 31, 2020 | 5:00 p.m. | |
| Declaration of Awarded Proposals | February 14, 2020 | | |

SECTION 2: PROPOSAL CONTENT REQUIREMENTS

2.1 PROJECT WORK PLAN AND TIMELINE

General Content Requirements for all Proposals:

Successful proposals will include:

- Overview of the current-state of prescribed fire planning, communication and mitigation activities in their community.
- Project schedule and work plan that details:
 - Who will conduct the work and their experience successfully implementing similar projects and/or contracts
 - Success metrics that are Specific, Measurable, Attainable, Realistic, and Timebound (SMART), with data collected to document performance of the project(s).
- Description of any current or anticipated partnerships, partners, or subcontractors that will or may be involved in the project, how they will be involved, and if they will be receiving funds from the grant.
- Estimated budget using the provided DEQ Budget form (Attachment F).
- Description of how the Proposer will report progress, goals met, and activities completed at the conclusion of the project.
- Indicate if the project is scalable to the amount of funding available, such as if the Proposer is competing for a \$75,000 funding level but is not successful in obtaining that level, a lower level of funding (i.e., \$25,000) could be used on the project on a smaller, scalable amount of projects. The detail of the reduced level of projects can be specified in the contract phase of the grant.
- **Match requirement.** A 10% match requirement of either in-kind contribution (which can include administration of the program) or matching funds is required. If the geographic area where the project is being conducted has less than 5,000 people, no match is required.

<u>Content Requirements for Proposals Seeking \$25,000 Grant Opportunities:</u>

Proposers seeking to use up to \$25,000 for the development of a community response plan must provide, at a minimum, the following:

- Information on wildfire protection planning activities completed by the community.
 - o If a wildfire protection plan exists, provide a copy of the most recent plan.
 - A description of planned prescribed fire activities near their community.
- Information on past prescribed fire activities such as location of burns, smoke impacts, and the expected need for future burns in those areas.
- Detailed description of how the Proposer would utilize the funds to complete community response planning activities:
 - How the Proposer plans to address the elements of OAR 629-048-0180(2) (See Attachment B of this RFP).
 - Detailed description of success metrics and data collected to document performance of the project(s).

Content Requirements for Proposals Seeking \$75,000 Grant Opportunity:

Proposers with established community response plans, or response plans already in development, and that have identified opportunities to mitigate the impacts of prescribed fire smoke on the most vulnerable in their community, must also include, at a minimum, the following:

- Description of how current plans address the elements of the Community Response Plan identified in OAR 629-048-0180(2) (See Attachment B of this RFP)
- Description of the efforts undertaken by Proposer's community to identify existing mitigations (clean air spaces, public buildings with appropriate air filtration, etc.).
- Description of potential mitigations that could be accomplished and their potential benefit to the community.
 - Evaluation of costs of mitigation and how the community would ensure that these mitigations remain in effect beyond this grant opportunity.
- Description of vulnerable populations in Proposer's community and how they would utilize or benefit from these potential mitigation efforts.
- Description of how these proposed mitigations may also be useful in mitigating the impacts from wildfire smoke.

2.2 SUBMISSION

Proposals may be submitted through the mail or via e-mail to Rachel Sakata at sakata.rachel@deq.state.or.us, or to 700 NE Multnomah St, Suite 600, Portland OR 97232.

2.3 PROPOSAL DUE

The Proposal and all required submittal items must be received by DEQ on or before Friday, January 31, 2020, at 5:00 p.m. PST. Proposals received after the closing date will not be accepted.

SECTION 3: AWARD AND NEGOTIATION

3.1 AWARD NOTIFICATION PROCESS

3.1.1 Award Consideration

DEQ will award multiple contracts to various Proposers.

For all proposals, DEQ in its evaluation of the proposals will seek statewide geographic diversity. Priority of awards will be provided to projects located in communities that:

- Are currently designated as not meeting the National Ambient Air Quality Standard for PM_{2.5} or communities that are in danger of not meeting the standard
- Communities that have been identified as SSRAs
- Communities that have established wildfire protection plans that identify risks to the community from wildfire and how the community plans to address that risk with the use of prescribed fire.

Other criteria DEQ will consider in evaluating the proposals include a history of successful contract and grant implementation with DEQ, especially with Air Quality programs; the overall effect the project will have on the community, and the likelihood of a measurable outcome.

In addition, for the \$75,000 award, DEQ will evaluate proposals with preferences for projects that are able to:

- Demonstrate actual reductions in exposure to prescribed fire smoke to vulnerable populations;
- Incorporates their proposed pilot-project mitigation into their community response plan and communication strategy for prescribed fire;
- Includes the evaluation of other potential mitigation activities that could be completed if additional funding was made available;

3.1.2 Notice of Award

DEQ will notify all Proposers in writing that DEQ is awarding a Contract to the selected Proposer(s) subject to successful negotiation of any negotiable provisions.

3.2 CONTRACT NEGOTIATION

3.2.1 Negotiation

A copy of the approved Sample Contract form is included as Attachment C to this RFP. The Sample Contract form contains the standard terms and conditions that will govern the Contract awarded under this RFP. After selection of successful Proposers, DEQ and the successful Proposers will negotiate the final Statement of Work, payment terms, delivery schedule and project specific requirements based on the selected Contractor's Proposal.

3.2.2 Contract Amendments

DEQ reserves the right to amend the Contract to extend its term, to modify the Statement of Work to address activities related to the scope of services described in the RFP, to modify payment terms as agreed upon by DEQ and Contractor or any combination of the foregoing. The terms of the Contract may not be waived or changed except by written amendment signed by all parties and for which all necessary State of Oregon approvals have been obtained. Contract amendments may be for additional time, funding or additional work of the same general nature described in the RFP and resulting Contract.

SECTION 4: ADDITIONAL INFORMATION

4.1 GOVERNING LAWS AND REGULATIONS

This RFP is governed by the laws of the State of Oregon. Venue for any administrative or judicial action relating to this RFP, evaluation and award is the Circuit Court of Marion County for the State of Oregon; provided, however, if a proceeding must be brought in a federal forum,

then it must be brought and conducted solely and exclusively within the United States District Court for the District of Oregon. In no event shall this Section be construed as a waiver by the State of Oregon of any form of defense or immunity, whether sovereign immunity, governmental immunity, immunity based on the eleventh amendment to the Constitution of the United States or otherwise, to or from any Claim or from the jurisdiction of any court.

4.2 OWNERSHIP/PERMISSION TO USE MATERIALS

All Proposals submitted in response to this RFP become the Property of DEQ. By submitting a Proposal in response to this RFP, Proposer grants the State a non-exclusive, perpetual, irrevocable, royalty-free license for the rights to copy, distribute, display, prepare derivative works of and transmit the Proposal solely for the purpose of evaluating the Proposal, negotiating an Agreement, if awarded to Proposer, or as otherwise needed to administer the RFP process, and to fulfill obligations under Oregon Public Records Law (ORS 192.410 through 192.505). Proposals, including supporting materials, will not be returned to Proposer unless the Proposal is submitted late.

4.3 CANCELLATION OF RFP; REJECTION OF PROPOSALS; NO DAMAGES.

Pursuant to ORS 279B.100, DEQ may reject any or all Proposals in-whole or in-part, or may cancel this RFP at any time when the rejection or cancellation is in the best interest of the State or DEQ, as determined by DEQ. Neither the State nor DEQ is liable to any Proposer for any loss or expense caused by or resulting from the delay, suspension, or cancellation of the RFP, award, or rejection of any Proposal.

4.4 COST OF SUBMITTING A PROPOSAL

Proposer shall pay all the costs in submitting its Proposal, including, but not limited to, the costs to prepare and submit the Proposal, costs of samples and other supporting materials, costs to participate in demonstrations, or costs associated with protests.

SECTION 5: LIST OF ATTACHMENTS

ATTACHMENT A SSRAs in Oregon (OAR 629-048-0140)
ATTACHMENT B Community Response Plan Elements (OAR 629-048-0180(2))
ATTACHMENT C COVER PAGE & CHECKLIST
ATTACHMENT D SAMPLE CONTRACT
ATTACHMENT E SCORING RUBRIC

ATTACHMENT A: SSRAs in Oregon

629-048-0140

Smoke Sensitive Receptor Areas

A SSRA is an area designated by the board, in consultation with DEQ, which is provided the highest level of protection under the Smoke Management Plan. This is due to its past history of smoke incidents, density of population or other special legal status related to visibility such as the Columbia River Gorge Scenic Area. The following are SSRAs:

- (1) The area within the State of Oregon commonly understood to be the Willamette Valley that:
- (a) Lies east of the forest protection district boundaries of the Northwest Oregon, West Oregon and Western Lane Forest Protection Districts, west of the forest protection district boundaries of the North Cascade and South Cascade Forest Protection Districts and north of where the Western Lane and South Cascade Forest Protection Districts come together in southern Lane County (for detailed district boundary descriptions, see OAR 629-041-0500 to 629-041-0575);
- (b) Notwithstanding the actual location of the forest protection district boundaries, includes the area within the city limits of the following cities that straddle, or are within but immediately adjoin, the forest protection district boundary:

| (A) Carlton; | |
|--------------------|--|
| (B) Corvallis; | |
| (C) Cottage Grove; | |
| (D) Dallas | |
| (E) Eugene; | |
| (F) McMinnville; | |
| (G) Portland; | |
| (H) Sheridan; | |
| (I) Silverton; | |
| (J) Springfield; | |
| (K) St. Helens; | |
| (L) Stayton; | |
| (M) Sublimity; | |
| (N) Veneta; | |
| | |

| (O) Willamina; and |
|---|
| (P) Yamhill; |
| (2) Within the acknowledged urban growth boundaries of the following cities: |
| (a) Astoria; |
| (b) Baker City; |
| (c) Bend; |
| (d) Burns; |
| (e) Coos Bay; |
| (f) Enterprise; |
| (g) Grants Pass; |
| (h) John Day; |
| (i) Klamath Falls; |
| (j) La Grande; |
| (k) Lakeview; |
| (I) Lincoln City; |
| (m) Newport; |
| (n) North Bend; |
| (o) Oakridge; |
| (p) Pendleton; |
| (q) Redmond; |
| (r) Roseburg; |
| (s) The Dalles; and |
| (t) Tillamook; |
| (3) The area within the Bear Creek and Rogue River Valleys described in OAR 629-048-0160, including the cities of Ashland, Central Point, Eagle Point, Jacksonville, Medford, Phoenix and Talent; and |
| (4) The area within the Columbia River Gorge Scenic Area, as described in 16 U.S.C. Section 544b, (2003). |

ATTACHMENT B: Community Response Plan Elements

629-048-0180

Communication, Community Response Plans, and Exemption Requests

- (2) ODF and DEQ recommend communities that are SSRAs and have experienced repeated smoke incidents and/or intrusions in the past collaboratively develop a community response plan and program.
- (a) The information in the plan and program includes, but is not limited to the following:
- (A) A description of populations in an SSRA community that are vulnerable to the health effects of short-term smoke;
- (B) Adequate means by which the public, especially vulnerable populations in the SSRA community, will be notified in a clear and reliable way of anticipated smoke impacts in a timely manner;
- (C) Adequate options for protecting the health of vulnerable populations (or helping such populations to protect themselves) from short-term exposure to smoke; and
- (D) A plan and program for communications between the entities that conduct prescribed fire, the local public health authority, and the community's public and vulnerable populations who may be impacted by smoke.
- (b) The community response plan should be coordinated through the local public health authority, but developed collaboratively with members or representatives of vulnerable populations, community officials, representatives from entities that have responsibility for prescribed fire, forest restoration collaborative groups, local businesses, and other interested members of the public.
- (c) The plan shall include a public communication and education strategy as outlined in the communication framework in (1).

DEQ Smoke Management Applications

Application 1: Development of Community Response Plan (\$25,000)

Application 2: Pilot Project (\$75,000)

APPLICATION 1: Development of Community Response Plan

Overview of the current-state of prescribed fire activities in Ashland, Oregon

Prescribed Fire: Following up on an extensive history of wildfire fuels mitigation (City forestlands, private WUI properties, and U.S. Forest Service lands) stretching back to the 1980's, there's both a long history of building community support for prescribed burning and an overwhelming need to increase the pace of burning now into the immediate and foreseeable future. Through the success of the Ashland Forest Resiliency Stewardship Project (AFR, 2010-Present) on federal land (7,000 acres/10 years) along with concurrent success linking surrounding private lands, there are now 12,000 acres needing a combination of pile burning (3,200 acres in 2019-2020 season) and/or returning the historic role of beneficial low-intensity fire through maintenance underburning. Underburning is needed on previously treated lands on a 10-year average cycle, based on the Ashland Watershed area's researched and documented fire history. Since 2012, 965 acres of maintenance underburns have taken place across all ownerships, well behind the needed pace, due in part to weather conditions, but in larger part due to the proximity and topographic conditions that lead smoke into the Ashland community. The burning that affords Ashland and the municipal watershed the greatest benefit often stands to deliver the most smoke into the community and SSRA.

Burns are planned across the entire 58,000-acre project area from the I-5 Siskiyou Summit west to Wagner Creek above the city of Talent. There are current, signed burn plans for XXX acres of federal land in the Ashland Forest Resiliency Stewardship project and XXX acres considered high priority for burn plan development this year and next. On City of Ashland land, there's XXX acres identified as high priority for underburning. There are approximately 2,000 acres of private land pile burning planned in 2020, less than 300 planned for 2021, and a cumulative total of XXX acres of needed maintenance underburning, dependent upon private owner willingness to participate. See current and anticipated burn acres in Table 1 below. The City of Ashland established a watershed maintenance fund through utility bill assessments designed to fund maintenance burning in perpetuity throughout the federal, City, and private land mosaic that surrounds the community and includes the municipal water source. The fund generates \$175,000 per fiscal year with the goal of completing at least 500 acres of underburning per year, to be matched by federal and other non-federal funding. To date, the most successful year of maintenance underburning resulted in XXX(170?) acres, completed in 2015. With the new State smoke management rules in place that we will be able to increase the pace of burning, and with an increased need for community engagement following the newly defined intrusion allowance inside SSRA's. An exemption from the 1-hour standard

Planning takes place annually, seasonally, weekly, and daily amongst AFR partners. Strategic planning utilizing risk assessments, planning tools, and experience guides the annual approach to

thinning and pile burning. Partner meetings are held with contractors each season (pile burning and underburning) while a separate partner group plans, conducts, and monitors community education and outreach simultaneously with operations. Each year, Ashland hosts a prescribed fire training exchange, or TREX, housed at Southern Oregon University. Over 4 years, participants have attended from many U.S. states, Canada, Mexico, Spain and across the local area to amplify local burn capacity and to grow a qualified burn workforce throughout Southern Oregon. If the weather cooperates, AFR partners attempt to make a burn "push" during TREX, scheduled for the last week of April.

Burn planning also takes place on a weekly call among AFR Partners to talk about priorities, weather patterns, smoke management, resources, community outreach, and feedback from the public and within the partnership. Each burn day, partners monitor burns on site, make adjustments, monitor smoke, and manage public interactions both at burn sites and in the media and public spheres.

Table 1. Current and projected burn acres by ownership and burn type

| | 2018- 2019Complete | 2019-2020 Planned | 2020- 2021Planned | 2021-2022 Planned | 2022-2023 Planned |
|-------------------------------|-----------------------|----------------------|----------------------|----------------------|----------------------|
| Federal Pile Burn Acres | 998 | 1,100 | 1,000 | 200 | 100 |
| City Pile Burn Acres | 15 | 55 | 75 | 30 | 15 |
| Private Pile Burn Acres | 1,211 | 2,100 | 750 | 100 | 0 |
| Federal Underburn Acres | 69 | 400 | 600 | 600 | 600 |
| City Underburn Acres | 9 | 40 | 75 | 75 | 75 |
| Private Underburn Acres | 40 | 400 | 300 | 400 | 500 |

Communication: Ashland Forest Resiliency coordinates prescribed fire planning, communications, and mitigation activities with core partners: City of Ashland, Lomakatsi Restoration Project, Rogue-River Siskiyou National Forest and The Nature Conservancy. Extended partners for smoke management planning include: City of Ashland Wildfire Safety Commission, Asante Ashland Community Hospital, Jackson County Health and Human Services, Ashland Chamber of Commerce, Oregon Shakespeare Festival, Ashland School District, Southern Oregon University, Ashland at Home, Fire Adapted Ashland, Ashland Family YMCA, Options for Helping Residents of Ashland (OHRA), and the Ashland Senior Center. Partners engaged have delivered several outreach products which build an understanding of prescribed fire and how to reduce smoke exposure with *SmokeWise Ashland*.

A community needs assessment was conducted during a smoke communications meeting with stakeholders held in January 2017. Participants in the workshop included our extended partners who later produced several deliverables to address smoke management needs and participants prioritized immediate communication needs.

Community input from the meeting was captured and recorded as part of the <u>AFR Community Engagement Plan</u> (CEP). AFR Partners delivered specific actions and activities outlined in the CEP with goals to both inform the public with <u>timely and specific communication for controlled burns</u> and to build an understanding of the benefits of a controlled burn program for community wildfire safety. When smoke regulators approve a controlled burn, any community member who participates can receive a text message, email notification, call the *Smoke and Wildfire Hotline* or view a social media announcement on Facebook or Twitter. Before controlled burns are conducted, the City of Ashland updates messages and sends notifications. A referral to the *SmokeWise Ashland* website is provided in the details of each controlled burn announcement.

Anticipating the increasing need for burning, in 2017 the AFR partners rallied a coalition of local organizations to increase the community's awareness of prescribed fire smoke. Taking the reins, the Ashland Chamber of Commerce created a Wildfire Task Force that meets monthly. The Task Force has been responsible for the SmokeWise Ashland effort, and two smoke workshops (one local, one regional). A first workshop in 2018 included local businesses and organizations from around the community and provided background, technical information, and a workbook for to guide businesses and organizations through smoke preparedness. In addition, two videos were produced to educate all citizens, supported by Asante and featuring their own cardiopulmonary physician. On February 20th, 2019, a Regional Business Resiliency workshop was held with community leaders, businesses and organizations in Jackson and Josephine Counties, who worked to develop collective messaging and brainstorm new innovative ideas to support quality of life and economic vitality during smoke events, using SmokeWise Ashland as an example of community preparedness and outreach.

SmokeWise Ashland (smokewiseashland.com) became a national model for community smoke adaptation and education after two summers of intense wildfire smoke in 2017 and 2018. Though not originally intended as a tool for summer wildfires, SmokeWise embraces all sources of smoke throughout the year and is used extensively in prescribed fire and wildfire season community outreach and education. SmokeWise was featured at the International Conference

Mitigation Activities: Partners and stakeholders addressing smoke management in the community took specific actions to reduce the long-term risk to people from smoke events and particulate hazard by providing community education and outreach. All products with health recommendations were approved and reviewed by pulmonologists and experts with Asante Community Hospital and Jackson County Health & Human Services. Implementing mitigation actions achieved some of our goals to reach vulnerable people with health information and specific actions they should take to reduce smoke exposure. Outreach with health recommendations were accomplished through a series of specific products and direct educational presentations.

Summary of Mitigation Activities Developed through SmokeWise Ashland

- Community Meetings and Planning for local business preparedness
- Engaged local physicians and health professionals to strategize how to reach vulnerable groups
- <u>Smoke Brochure in English</u> developed with Asante Community Hospital in Spring, 2018 with a second version printed during Spring, 2019. Over 10,000 were distributed to local schools, retirement facilities, community gathering points and businesses.
- Smoke Brochure Printed in Spanish with U.S. Forest Service and 1000 distributed.
- SmokeWise Ashland website first developed and rolled out in July 2017 with revamp, social media campaign, and relaunch in July 2019.
- Presentation developed and delivered with health information to YMCA, Ashland Senior Center, Ashland High School and various retirement communities
- Specific recommendations for ways to improve indoor air quality during smoke events were researched, shared, and implemented broadly
 - School board voted to include air filtration retrofits with recent school facilities bond
 - All municipal city buildings were retrofitted with improved air filters
 - Southern Oregon University upgraded filtration in many buildings and opened select spaces to the public during summer wildfire smoke of 2018 and 2019
 - Ashland Family YMCA purchased HEPA air purifiers and reviewed building entrances for best solutions.
 - Asante Ashland Community Hospital made retrofits for surgery room and general building air quality
- Smokewise Ashland health videos on AQI and respirators were produced with support from Asante's pulmonary care physician, Dr. Kana.
- Smokewise Ashland provides link to live video feed of the valley

Summary of Mitigation Activities for Ashland Forest Resiliency

- Launch of text message service February 2017
- AFR website update Spring 2017, linked to SmokeWise
- Direct mailing sent to 13,000 individuals and businesses February 2018
- Controlled burn awareness and education campaign implemented with <u>in-depth articles</u> and advertisements published in local media outlets, <u>video in local theatres</u> and social media campaign Spring 2017 to current

• Nixle community notification system introduced July 2018. Now at 1,800 subscribers to burn notifications.

Project work plan and schedule

The City of Ashland will solicit bids for a contractor to help write the Community Response Plan. The City will convene an oversight group with AFR and SmokeWise Ashland to select and oversee the contractor's work and to provide content. The City of Ashland routinely manages contracts to develop plans, conduct outreach, community engagement and provide media content. The City follows State of Oregon contract management rules and financial reporting, and is annually audited for compliance. We plan to finish the planning phase by July 15th of 2020 in order to build additional relationships before wildfire season and chances for summer smoke peak. This also sets the stage for implementing a Mitigation Grant with some overlap, but also leaving enough time in the remainder of the year for Mitigation Grant implementation.

| Benchmark | Participants | Anticipated Performance Period |
|--|--|--------------------------------------|
| City of Ashland and partners develop RFP and requests bids from contractors to create the Community Response Plan | City of Ashland led | March 15, 2020 |
| City of Ashland and partners select contractor | All Project Partners | April 15, 2020 |
| Partners convene with selected contractor Outcomes: identify specific content/needs/outcomes of Ashland's Community Response Plan, assign tasks, establish timeline | All partners listed in Description of Partners | May 1, 2020 |
| Group meetings Slot in frequency of meetings (monthly?) Use monthly Task Force meetings as time to convene as group for May 2020-March 2021? | All partners listed in Description of Partners, as appropriate | May 15th, 2020 - July 15th, 2020 |
| City of Ashland/Contractor monthly updates | City of Ashland, contractor | May 2020 - July 15th, 2020 |

| Meet week prior to each group meeting to discuss updates/progress, and upcoming needs of the group, develop agenda for upcoming meeting | | |
|---|---|------------------------------|
| Final Draft submit by contractor for final review by group | All partners listed in Description of Partners | February 1, 2021 |
| Final Draft comments submit to contractor | All partners listed in Description of Partners | February 15, 2021 |
| Final Draft comments addressed and finalized for presentation and approved by council | Contractor, City of Ashland | March 1, 2021 |
| Plan approved by council | Contractor, City of Ashland, letters of support from partners | March 2 or March 16, 2021 |
| Submit final Plan with request to ODF & DEQ for exemption from the 1-hr smoke intrusion threshold | City of Ashland | March 26, 2021 |

Description of Partners

City of Ashland will provide project coordination, including convening meetings, strategic planning, contract oversight, delivery of outreach and community engagement activities, financial oversight, and convene both citizens and stakeholders. (*City will receive grant funds to fund contractor*)

Lomakatsi Restoration Project will participate as a subject matter expert on controlled burns and for advancing the use of prescribed fire. Lomakatsi Restoration Project has a rich history of developing and implementing proactive, community-based ecological restoration projects. (no funds received through this grant)

Rogue River-Siskiyou National Forest will participate as a subject matter expert in implementing controlled burns. (no funds received through this grant)

The Nature Conservancy will participate as a subject matter expert on fuels and smoke monitoring within the Ashland Watershed. The Nature Conservancy currently manages multi-

party monitoring for the Ashland Forest Resiliency Project. Their scientists collect smoke data for fuels projects taking place in the Ashland Watershed. (*no funds received through grant*)

Asante Ashland Community Hospital will assist in identifying and describing the smoke-vulnerable populations in the Ashland Area and participate in building means to communicate & notify vulnerable population about fire, smoke impacts and air quality, and help identify options to protect public health and mitigate exposure to smoke (*no funds received through grant*)

Jackson County Health and Human Services will assist in describing the smoke-vulnerable populations in the Ashland Area SSRA and participate in building means to communicate & notify vulnerable population about fire, smoke impacts and air quality, and help identify options to protect public health and mitigate exposure to smoke

Ashland Chamber of Commerce will coordinate group partners to build coordination and communication plans for fire, air quality and public health in Ashland. The Chamber's Fire Prevention Task Force has received funds from The Fire Adapted Communities Learning Network to develop a Communication Plan and conduct further outreach to the business sector (*cash matching funds*).

Oregon Shakespeare Festival will participate as a representative of the business community in Ashland that is impacted by wildfire smoke. The Oregon Shakespeare Festival (OSF) is a not-for-profit professional theatre whose business is readily impacted by smoke when it enters the valley. The Oregon Shakespeare Festival serves on the Chamber's Fire Prevention Task Force. OSF has taken a proactive approach to planning for smoke by monitoring air quality in order to make decisions on locations/cancellations of shows.

Southern Oregon University (SOU) serves over 6,000 students, including thousands who live on campus, and along with 794 staff and faculty SOU has a large presence in the community. SOU has dedicated to increasing its community involvement and along with student and faculty involvement in the AFR project, have opened their doors to the public as a smoke refuge during summer wildfires and would like to be further involved in smoke and health efforts.

Ashland Senior Center will participate as a representative of the elderly community, an at-risk community to the impacts of smoke.

Ashland at Home will participate as a representative of the elderly community, an at-risk community to the impacts of smoke.

Options for Helping Residents of Ashland will participate as a representative of the unhoused community, an at-risk community to the impacts of smoke.

Ashland School District has retrofitted many buildings and recently included air quality filtration system upgrades as a priority in a 2019 facilities bond measure. ASD serves 3,000 students and has 300 staff members. The vast majority of air quality vulnerable children attend ASD.

Smoke Response Plan Budget

| | Grant Amount | Matching Funds | Total |
|-----------------------|--------------|-------------------|----------|
| Personnel | \$2,000 | \$7,000 (in-kind) | \$9,000 |
| | | | |
| Professional Services | \$20,000 | \$6,800 (cash)* | \$25,000 |
| Services and Supplies | \$500 | - | \$500 |
| Grant Administration | \$2,500 | - | \$2,500 |
| Total | \$25,000 | \$12,000 | \$37,000 |

^{*}The City of Ashland was awarded \$6,800 from the Fire Adapted Communities Learning Network to contract with the Chamber of Commerce to develop a Smoke Communication Plan and work with regional "Smoke Busters" program serving senior citizens.

The Ashland Community Wildfire Protection Plan

Ashland's Community Wildfire Protection Plan was completed in 2004 and adopted by the City Council. Ashland's CWPP can be found at www.ashland.or.us/cwpp. This document synthesizes issues relevant to homeowners in the wildland urban interface as well as Ashland's municipal watershed. The plan was submitted to the United States Forest Service and accepted as an official CWPP under the Healthy Forest Restoration Act of 2003. Since that time, nearly all of the recommended action items identified in the CWPP have been completed (i.e. the City has developed and passed a wildfire safety ordinance, the City has maintained and increased grantfunded thinning projects over time">www.ashland's CWPP has maintained and increased grantfunded thinning projects over time). As such, in 2015, Ashland's Wildfire Mitigation Commission (now the Wildfire Safety Commission) began efforts to update the CWPP. While many chapters of Ashland's CWPP were updated between 2015 and 2017, an updated document in its entirety has not crossed the finish line. But plans to finalize CWPP revisions are being made to begin in Spring of 2020.

Past prescribed fire activities and expected need for future burns

Over the past years, burning has been very active as we've worked in overly dense forests being thinned for the first time in many decades on public and private land. This has created an overwhelming need to "catch up" by thinning accumulated vegetation and burning it in piles. Though AFR partners burned 2,209 acres of piles last fall and winter, there were still over 1,000 acres unburned going into summer fire season. This has been the pattern for many years due to air quality restrictions combined periodically unfavorable burn weather patterns. Pile burning often creates more smoke than underburning due to the inherited fuel loading, so smoke management has been a critical piece of implementing pile burns. With the change in burn rules implemented in 2019, Ashland hopes to enter fire season 2020 with no burn piles left and having accomplished at least 500 acres of underburning across the landscape. That would be a significant improvement over past years.

Though there has only been two officially registered intrusions from burning since 2010, there were many instances of smoke in the community from our burning that either predated the installation of the DEQ nephelometer, or fall downwind from it as smoke funnels downstream. Nonetheless, we have fielded many calls and comments about smoke over the past 10 years, educating the community as we go and developing resources they can access on their own. Through experience we now have a good idea which areas of burning will potentially impact certain downslope portions of Ashland and using the City's Nixle alerting system we can target messages to a specific area, alerting citizens to close windows or take other protective actions as needed. Ashland's most serious smoke impacts have been from summer wildfires in 2017 and 2018. In those two summers, Ashland experienced over 40 days straight of compromised air quality, with readings on many days going into the "Unhealthy" AQI category and higher. SmokeWise Ashland and the relationships built around preparing for prescribed burning smoke have been absolutely essential to adapting to summer smoke episodes.

Ashland's future burning is critical to our safety and resiliency. Research lends broad support to the efficacy of prescribed burning as an essential tool to reduce wildfire intensity, leading to increased ecosystem resiliency and community safety. Critical burn units are typically those closest to the community, which coincides with the highest risk for smoke affecting people. Through the AFR project and burning on City forestlands, we've accomplished initial burns in many critical areas, though more remain like a 300-acre block on federal land directly adjacent to the city limits, less than a half mile from Lithia Park, and 1.4 miles from the Oregon Shakespeare Festival and the downtown. Another 400 acres is under contract on private land just 1.4 miles west of downtown in a strategic location to protect both city and watershed. At the end of this spring we expect to wrap up cutting and piling on the balance of 12,000 acres total since 2010. It will be a challenge to maintain these investments in fire safety and forest health through the use of maintenance burning, but that is the preferred tool. The DEQ grants will help Ashland formally establish a smoke response plan, communications pathways, and the needed regulatory leeway to increase our pace to meet this challenge.

Addressing the elements of OAR 629-048-0180(2)

In the past three years, there have been two recorded intrusions in Ashland. Most recently in December of 2019 an intrusion of the new 1-hour standard affected the downtown area during overnight hours. Due to the location of the DEQ nephelometer in downtown, there have been many more "smoke incidents" since burning ramped up in 2011 that preceded the installation of the monitor, or those that aren't recorded because smoke moves downwind of the monitor, or it moves to the valley bottom before reaching it. Given the acres and proximity of many planned burn units, the probability of 1-hour intrusions is high. A response plan would formally document many of the proactive steps our partners are already taking, in addition to establishing new relationships and concrete mitigation measures that are needed as burning continues to ramp up through the spring and coming years.

In the Ashland Response Plan, we will show a detailed breakdown of the vulnerable populations with key strategies to communicate with those groups. By leveraging our community partners in Smokewise plus new partners, we can point key "gate keepers" (managers, employees, etc...who have access to large groups) to our SmokeWise resources as well as appealing to targeted

individuals through direct outreach. We have already done this, but there is potential to reach many more people and there is always turnover in the population, so the challenge is constant.

(A) A description of populations in an SSRA community that are vulnerable to the health effects of short-term smoke;

The description of populations in the Ashland community that are vulnerable to health effects of short term smoke will be completed by partners described above, including Asante Ashland Community Hospital and Jackson County Health Department, with contributions from Ashland At Home, Ashland Senior Center, Options for Helping Residents of Ashland, and the Ashland School District.

(B) Adequate means by which the public, especially vulnerable populations in the SSRA community, will be notified in a clear and reliable way of anticipated smoke impacts in a timely manner;

The means by which the public, especially vulnerable populations in the Ashland area will be notified will be determined by all of the partners listed above. The creation of a Smoke Communication and Notification Plan will be headed by Ashland Chamber of Commerce, and will include the identification of thresholds and timing for notifications, as well as craft the language and means of communication for each identified population, with emphasis on vulnerable populations

(C) Adequate options for protecting the health of vulnerable populations (or helping such populations to protect themselves) from short-term exposure to smoke; and

SmokeWise Ashland was researched thoroughly to represent the latest recommendations from Oregon Health Authority, the Environmental Protection Agency, various state and medical authorities on air quality. The recommendations on the website, video, and pamphlet outline specific measures for avoiding short-term smoke exposure. With each outreach message during burn season, we emphasize the SmokeWise resource and routinely send messages after the burn if we think smoke will impact the community or specific areas downwind. Often, an exposure of only a few hours (most common) can be avoided by simply closing windows and staying inside.

Those residents who experienced the dense smoke in the summers of 2018 and 2019 are very familiar with precautions to avoid smoke exposure and just need prompting. Through our Nixle platform, we can instantly message over 8,000 residents who are signed up in the system to receive alerts. Adding that to social media and websites, our reach is extensive among the community when we need to get out messages about burning and lingering smoke.

(D) A plan and program for communications between the entities that conduct prescribed fire, the local public health authority, and the community's public and vulnerable populations who may be impacted by smoke.

The Ashland Forest Resiliency Partners have been working since 2010 preparing the community for the inevitable transient smoke from burning. We have built relationships with not only the local public health authority in Jackson County, but with the local hospital, its network of physicians and clinics, private providers, and three other clinics who operate in Ashland. A well-rounded communication system has been built to allow various means of receiving notifications about burning from social media to a phone hotline and even a radio station. Networks have been established with points of contact among vulnerable populations (schools, nursing facilities, retirement communities, health care providers) as well as directly to vulnerable citizens through presentations and at events. The proposed funding would tie together these efforts into a cohesive plan, adding additional partners and formalizing roles.

APPLICATION 2: Pilot Project - Community Response Plan Implementation

Proposers with established community response plans, or response plans already in development, and that have identified opportunities to mitigate the impacts of prescribed fire smoke on the most vulnerable in their community (\$75,000 grant opportunity), must also include, at a minimum, the following:

Description of how current plans address the elements of the Community Response Plan identified in OAR 629-048-0180(2)

SmokeWise Ashland and the Ashland Forest Resiliency Project's smoke communication protocols address nearly all of the Community Response Plan's required elements, though they are not cohesively organized into a document at present. Ashland's Response Plan, due to years of work already logged, will be developed early in the year, leaving ample time and opportunity to implement the proposed Pilot Project within the city.

Existing Smoke Mitigation in Ashland

The City of Ashland has worked with local partners to identify and mitigate the health impacts of smoke in several areas of the community. In 2019, the Ashland Senior Center installed two large air purifiers in their activity room, recognizing that many of their seniors are at risk for respiratory and cardiovascular illnesses during smoke events. This clean air space was assessed by Rebuilding Together Rogue Valley's "Smoke Busters" program, which utilizes volunteers to assess air quality, identify leaks in door and window seals and provides an air purifier at no cost to seniors who suffer from a respiratory or related illness and have relatively low income.

In 2018, the City of Ashland, in partnership with Ashland Chamber of Commerce, provided a workshop to help guide business owners to better prepare for smoke impacts to their business. The event provided information for businesses to plan ahead for possible smoke impacts to their buildings, employees and customers, providing information and resources to mitigate the impacts of smoke.

Pilot Project Description

The City of Ashland will supply qualifying applicants with standalone air purifiers, filters and masks. Using the Smoke Busters' program as a model, applicants with respiratory or related illnesses, those over the age of 65, and those who have relatively low income would receive an air purifier to create a clean air room in the home. Air purifiers and masks would be distributed by local partners, possibly including the local food bank and Ashland Senior Center. Supplying air purifiers to create clean air rooms will provide vulnerable populations relief from smoke during prescribed fire, or regional wildfires that impact the valley.

Looking ahead, the City of Ashland will identify two or three clean air spaces within the city, work with the owners of those spaces to create clean air spaces by supplying and installing air purifiers. The City would contract with a local HVAC specialist to complete the design and installation of the air filtration system for clean air spaces. The selected clean air spaces would be supplied with air quality monitoring equipment to track the quality of air during times of smoke. During periods of smoke produced by prescribed fire or wildfire, notifications to the public regarding the clean air spaces would be distributed, and the spaces be made available for public use during the clean air space's business hours. The clean air spaces will also be a distribution point for masks and air purifiers to those who qualify (vulnerable populations). Education about how to wear masks and how to create a clean air space in the home will be provided at the public clean air spaces as well.

Smoke Mitigation Beyond the Pilot Project

The primary budget expenditure is (from our research) the most important smoke mitigation tool: an in-home HEPA air purifier. Masks have utility, as do HVAC system filters, but the HEPA air purifier is rated to remove over 99% of the smallest (.3 micron) particles and in the spaces where people spend the most time. Similar filters for air handling systems (MERV 13 or higher ratings) can remove microparticles, but in order to remove nearly all PM 2.5 particles, there's a danger to the functioning of the air handling system by introducing too much drag by drawing air through an ultra-fine filter. A standalone HEPA unit has the advantage of being mobile, so it can cover a living room during the day and a bedroom at night. Experts point to the need to have a clean air space, especially for sleeping. We priced the top rated model conservatively at \$160 per unit. For vulnerable populations who spend most of their waking and sleeping hours in their own home or apartment, this would vastly improve their resistance to smoke events. We would rely on community partners to distribute and track use of these air purifiers. They are long lasting investment versus a single filter or mask, and the internal filters can simply be replaced for a reasonable cost of \$26 per year for many years of function. We will require partner groups to track use of the air filters once a year and report back. Priority will be given to appropriately sized spaces that serve vulnerable populations, and then to individuals who meet vulnerable population criteria starting with lower income levels.

In addition, we propose to invest in at least two publicly available (free of cost) clean air spaces. Possible locations include the public library, an Oregon Shakespeare Festival space, City facility, or school or university building. We would invest in a technical determination by a professional that the space can indeed remain clean over time, in addition to some portion of the cost of materials for retrofitting. We have budgeted \$1,250 for each of two spaces. Once a year, City staff would confirm that the space is still maintained, open, and available during both burn and wildfire seasons. Professional services are budgeted to include offsetting staff costs at partnering

agencies who will be interfacing with vulnerable populations, design and printing for outreach materials, and technical consulting from air quality and heating/cooling specialists.

Pilot Program Budget

| | Grant Amount | Matching Funds | Total |
|--|-----------------|-----------------------|----------|
| Personnel (AFR and SmokeWise partners for grant admin, accounting, oversight and reporting) | \$0 | \$3,000 (in- kind) | \$3,000 |
| Professional Services (Participating organization staff time, design, printing, and HVAC consulting) | \$5,000 | | \$5,000 |
| Services and Supplies (375 HEPA Air cleaners @ \$160, plus filters at two targeted public refuge spaces) | \$62,500 | \$6,800 (cash)* | \$69,300 |
| Grant Administration (de minimis 10% charge) | \$7,500 | - | \$7,500 |
| Total | \$75,000 | \$9,800 | \$84,800 |

^{*}Fire Adapted Communities Network Grant (Received in 2019)

Vulnerable Populations in Jackson County and City of Ashland

According to the American Lung Association's *State of the Air* 2019 report, Southern Oregon, specifically Jackson County in the Rogue Valley area has some of the worst short-term particulate air pollution in the nation, and our county received an F grade for high particulate pollution days. These particulate spikes were directly linked to wildfires in the surrounding forests and poor air quality is most likely to impact vulnerable groups.

Vulnerable populations in Ashland include the following:

- Low income children and families
- Persons over the age of 65
- Persons with respiratory or cardiovascular diseases
- Children (under the age of 18)
- Unhoused

The 2019 revised EPA Wildfire Smoke guide states that children, and families of lower socio-economic status are some of the most physically susceptible to high particulate matter in the air during wildfire smoke inundation. The world population reviews report found that nearly one out of every 5 citizens (20.1%) within Jackson county lives in poverty (up from 16.7% poverty rate from 2017 census); this is nearly twice the national average (11.8%). Ashland has experienced a

15% increase in homeless over the past year alone. (Source: U.S. Census Bureau, 2018 population estimates)

Additionally, persons over the age of 65 and those with respiratory or cardiovascular diseases are vulnerable to smoke. There are 4,678 Ashland residents over the age of 65. 9.6% of residents within Jackson County are reported to have cardiovascular disease while 8.5% are reported to have COPD.

Children are also vulnerable to smoke. The U.S. Census Bureau estimates that Ashland has 3,423 children under the age of 18 (2018). Children can be exposed to smoke in homes that do not have adequate air filtration, and may be exposed to smoke while attending school or daycare. Classrooms in Ashland schools are presently supplied air filters during times of smoke, but exposure between classes and in poorly sealed rooms still poses a risk to this vulnerable population.

The unhoused represent yet another group vulnerable to wildfire smoke. An assessment in July found that there are 712 homeless people in Jackson County, many of whom travel along the Bear Creek Greenway between the Medford area and Ashland. Several services in Ashland provide temporary shelter from cold weather conditions, but the adequacy of these locations to shelter from smoke are presently unknown.

With additional resources, we will expand our best practice planning to network and strengthen relationships with organizations who serve homeless and vulnerable groups, under-served students K-8th grade and adults older than 65. Through our planning and outreach; organizations who work directly with target populations will be engaged to learn smoke preparedness and mitigation messaging, where messages can be delivered and in what format for accessibility. We see education and outreach for prescribed fire smoke management planning as pathway for smoke awareness and education during summer wildfires.

Scaling up: mitigating the impacts from wildfire smoke

Smoke is smoke. Mitigation measures and communication pathways developed for predicted prescribed burn smoke events double for summer wildfire smoke. Ashland has experience with both modes of communication and response and the SmokeWise Ashland program was design with both sources in mind. We continually educate the community, including the entire month of June, which was declared "Smoke Preparedness Month" in Ashland, as part of a three-month wildfire awareness campaign started in 2019 and planned to continue into the foreseeable future.