OREGON SOLUTIONS

Oregon Solutions Declaration of Cooperation

December 7, 2017

I. Project Snapshot

The residents' health of Oakridge, Oregon's is compromised by air borne particulates (soot) from home-heating wood burning during the winter months. For the last two decades, the city has exceeded EPA's federal air quality standards for PM2.5. This means the residents are more likely to have respiratory and cardiac challenges and or disease, and have a higher risk of cancer. Residents of Oakridge represent a larger proportion of poverty than the state average of 7.1% with 21.9% of Oakridge residents falling below the poverty level and are subject to greater levels of air toxicity, and are unable to participate in heating upgrades or weatherization projects, leading to their exposure to greater levels of air toxicity.

The City of Oakridge's Mayor Jim Coey and Senator Floyd Prozanski have convened an Oregon Solution's project including a broad coalition of public agencies, non-profits and private businesses to develop the Resource Development and Mitigation Plans. These plans outline the resource development, program development and needed heating system replacements to ensure both community health and keeping people warm in the winter. The remaining work calls for recruitment of funding, installing 60 ductless heat pumps and 15 EPA certified wood stoves, as well as weatherizing 10 homes. Additionally, the program will provide education, a community firewood program (to burn dry seasoned wood instead of green wood) and heating bill assistance to ensure the entire community can benefit.

II. Process Description

Oregon Solutions (OS) is a program of the National Policy Consensus Center at Portland State University. The mission of Oregon Solutions is to develop solutions to community based problems that support sustainable objectives for the economy, the community and the environment and are built through the collaborative efforts of citizens, businesses, government and non-profit organizations. The OS approach integrates and makes efficient use of public and private investments, elevates the visibility of the project and engages communities in creating solutions. The process provides a neutral forum – a place where various interests and stakeholders can come together as parties in a "Project Team," in a manner that is more neutral than a meeting sponsored or hosted by one of the parties at the table.

Through the Oregon Solutions process, collaboration among parties on the Project Team is anticipated to develop and evolve as the process continues. The intent is to foster or

facilitate agreements amongst the parties about which potential actions, or suite of potential actions, may be taken to cumulatively lead to successful project outcomes, including identifying who may be appropriate to take specific actions, how and when. This collaborative work product is documented at the end of the OS process in the Declaration of Cooperation (DoC) which can be understood as an implementation plan. The DoC, including the stakeholder commitments, is a "living" document that may evolve with the opportunities for parties to amend by unanimous consent from time to time, to represent changing situations often found during project development, until project completion or until suspended by mutual agreement.

III. Project Background

This Oregon Solutions effort builds off more than two decades of effort by the City of Oakridge and partners to resolve air quality issues in the community and airshed. This multi-stakeholder effort aimed to expand the involvement of local, regional and state partners to attract resources, raise community awareness about related hazards and provide a menu of actions for targeted households to address air quality issues. By expanding the group of community stakeholders, Oregon Solutions would specifically work with partners to (1) identify existing and new potential funding resources, (2) develop a roadmap to seek out and apply for these resources and (3) formalize roles and commitments through a Declaration of Cooperation to move implementation strategies into action.

Project strategies included:

- Development of a Resource Development Plan to guide the program manager's work to cultivate and solicit funding for specific Mitigation Plan project elements.
- Development of a Mitigation Plan that contains the project description, needs, strategies, investment needed, efforts and successes to date, progress, program rollout, partners, and program management.
- Identification of pre-screened funding resources that match the mitigation plan's elements.

IV. Project Outline

Objectives

Task	Responsible Party	Current Progress toward Success	Measure of Progress toward task completion	Target Date
Resource Development Plan complete with funding ID, prioritization and planned approach for cultivation	Workgroup	6 Page Plan with multi-tab spreadsheet for directing and tracking work	Complete	December 2017
Mitigation Plan complete with project description, needs, strategies, investment needed, efforts to date, progress, program rollout, partners, and program management	Workgroup	Near Complete	Complete	December 2017
Inventory of residents requesting assistance	City of Oakridge	Complete by December		December 2017
Funding requests to Lane County, DEQ and other prioritized organizations	Workgroup	Mitigation plan will serve as content for RFP proposal	In Process	1st Quarter 2018
Reconvening of the group	Workgroup	Meeting scheduled January 2018	RFP to be distributed	January 2018
Hiring a program manager	City of Oakridge	Job Description and Roadmap Complete	Position to be hired once Oakridge has received DEQ funding	February/March 2018

V. Commitments

This Declaration of Cooperation, while not a binding legal contract, is evidence to, and a statement of, the good faith and commitment of the undersigned parties. The undersigned parties to this Declaration of Cooperation have, through a collaborative process, agreed and pledged their cooperation to the following findings and actions:

City of Oakridge

The City of Oakridge has been actively involved in implementing strategies for reducing woodsmoke over the past two decades. During the past three years, the City of Oakridge has made a concerted effort to identify and integrate the heating systems and residence weatherization upgrades to reduce the impact of woodsmoke on the health and economy of Oakridge. City staff want to ensure that the community is able to complete the plan developed. City of Oakridge commits to the following:

Near Term Commitments until the Program Manager is Hired

- Ongoing support via staff meeting attendance.
- Compiling data with the resident inventory (exemption list inspections) to prioritize residences for heating system and weatherization upgrades.
- Revise and review zonal approach to implementation if required due to funding.

Resource Development

- Mayor Coey and City staff will play a role in evaluating and connecting with potential grant recipients (e.g., SWFC, Cascade Pacific, St. Vincent de Paul).
- Mayor Coey and city staff will continue to coordinate with implementers of heating systems and upgrades (e.g., Lane Electric, Lane Count HACSA).
- Mayor Coey will coordinate with Commissioner Williams at Lane County Commissioner and Lane County staff for project funding for the community firewood program.

Mitigation Plan Implementation

- The City of Oakridge will manage and work with program manager position.
- The City of Oakridge will donate office space for program manager position.
- The City of Oakridge will finalize a MOU to establish a public-private partnership with Inbound LLC for the community firewood program.
- The City of Oakridge will participate in the MOU with Inbound LLC to equipment share for the execution of the community firewood program.
- The City of Oakridge will provide storage space of 50,000 square feet for community firewood program.

Mayor Jim Coey	Louis Gomez	Rick Zylstra
City of Oakridge, Mayor	City Administrator	Community Services Coord.

Senator Floyd Prozanski

Senator Prozanski and his office are committed to solving the issue of woodsmoke in Oakridge. The Senator actively engaged this issue during the last legislative session and was instrumental in helping the State of Oregon direct $250,000 to rural communities challenged by woodsmoke issues. Senator Prozanski participated in this Oregon Solutions effort as a co-convener with Mayor Coey and remains dedicated to identifying funding pathways to solve the issue in Oakridge. Senator Prozanski commits to the following:

Resource Development

- Connect and cultivate a relationship with the Coordinated Care Organization (CCO) Trillium.
- Assist in the cultivation of the relationships with funding sources with which he has professional and personal relationships.
- Assist in pursuing funding at the state and federal level that can assist in this effort.

Senator Floyd Prozanski
Senator, District 4 - South Lane and North Douglas Counties

Lane Regional Air Protection Agency (LRAPA)

LRAPA is committed to help Oakridge meet national air quality health standards and achieve EPA approval of attainment status. Attainment and maintenance of air quality health standards is important not only for protection of public health but also for economic development and compliance with the federal Clean Air Act. LRAPA commits to the following:

Near Term Commitments until the Program Manager is Hired

- Ongoing support via staff meeting attendance.
- Assistance with grant application documentation related to air quality data and trends analyses, progress reports, and historical pollution control strategies.

Resource Development

- LRAPA is investing staff and agency resources of about $112,200 to the Oakridge area over the next year. This investment is about 20% of the total federal-state-local general funds in the LRAPA budget, focused on the Oakridge area which represents about 1% of the population served by LRAPA, or about a 20-fold prioritization of Oakridge on a per capita basis.

Mitigation Plan Implementation

- Air quality and meteorological monitoring and reporting in accordance with federal, state and local requirements.
- Daily Oakridge-specific daily updates and forecasts of Air Quality Index (AQI), red-yellow-green home wood heating advisories (October-May), and outdoor burning advisories (October and March-May).
- Support Oakridge Police Department and other city staff on implementation of city ordinances and community firewood program, and direct implementation (including outreach, education, and compliance enforcement) of Lane County and LRAPA rules in the urban growth boundary (UGB) surrounding Oakridge.
- Coordinate "exceptional events" request and documentation of wildfire smoke intrusions with Oregon Department of Environmental Quality (DEQ) and U.S. Environmental Protection Agency (EPA) Region 10.
- Develop 10-year air quality maintenance plan with the City and other partners for adoption by the LRAPA Board of Directors and Oregon Environmental Quality Commission (EQC) as part of the State Implementation Plan (SIP) for submittal to EPA for approval under the federal Clean Air Act.

Merlyn Hough
LRAPA, Director

South Willamette Forest Collaborative (SWFC)

The efforts in Oakridge to manage woodsmoke mitigation involve many of the challenges and opportunities that SWFC pursues in its mission as a community-based forest collaborative. SWFC strives to promote local forest management solutions that sustain ecological resiliency and promote socioeconomic health for the southern Willamette forest area and nearby communities. SWFC commits to the following:

Near Term Commitments until the Program Manager is Hired

- Ongoing support via staff meeting attendance.
- Continue to help facilitate CFP MOU between City of Oakridge and Inbound LLC.
- Continue to work with USFS to figure out source stock for community firewood program.
- Assist with questions about jurisdiction issues during burning season.

Resource Development

- Provide expertise and assistance to grant applications where SWFC could be the grant applicant (or via Cascade Pacific).

Mitigation Plan Implementation

- Coordinate with City of Oakridge staff when project funding requires a 501(c)3 organization or fiscal sponsor. And if so, help facilitate program manager position and grants through fiscal sponsor Cascade Pacific RC&D.
- Continue to help with outreach on the community firewood program.

Sarah Altemus-Pope
SWFC, Executive Director

Lane Electric Cooperative

Lane Electric has been an important partner providing assistance for all Oakridge residents. Since 2012, Lane Electric has installed ducted and ductless heat pumps for 124 regular and 55 low-income residents in the City of Oakridge. The financial contribution for these installations is $321,500 ($112,500 for regular units, $209,000 for low-income). Oakridge residents contributed approximately $750,000 for these ducted and ductless systems. Lane Electric commits to the following:

Near Term Commitments until the Program Manager is Hired

- Ongoing support via staff meeting attendance.
- Review of Oakridge inventory list to identify which homes can take advantage of offered programs and implement them.

Resource Development

- Signing funding letters of support demonstrating that Lane Electric has contributed to the community and will continue to do so.

Mitigation Plan Implementation

- Continuation of support to install ductless heat pumps and weatherize homes in Oakridge.
- Support low-income residents with red-day credits for electricity use.

~~John Murray~~ Matt Michel
Lane Electric Cooperative, ~~Energy Services Representative~~ Genral Manager

Oregon Department of Environmental Quality (DEQ)

DEQ has been a committed partner and participant in identifying opportunities and solutions for rural communities in the state of Oregon including the City of Oakridge. Because of the growing concern about the health and economic effect of woodsmoke in communities House Bill 3068 directed DEQ to form a workgroup to study and develop

recommendations to reduce woodstove smoke for legislative consideration. DEQ commits to the following:

Near Term Commitments until the Program Manager is Hired

- Ongoing support via staff meeting attendance.
- Consideration of Oakridge's application to cover Program Manager position and other mitigation plan elements as part of $250,000 funding from the state of Oregon.

Resource Development

- Posting of Supplemental Environmental Project (SEP) Application.

Mitigation Plan Implementation

- Assistance with Reattainment and Maintenance plan documentation and analysis.

Dave Belyea, Mary Camarata and Rachel Sakata
Oregon Department of Environmental Quality

Oregon Regional Solutions

The Oregon Governor's office and Oregon Regional Solutions is committed to solving the issue of woodsmoke in Oakridge. The creation of the Oregon Solutions project is a direct result of the Governor's office and Regional Solutions interest in pursuing this issue. Regional Solutions participated actively in the workgroup meetings leading up to this Oregon Solutions effort and will continue to identify opportunities to participate and leverage its unique role in identifying regional solutions. Oregon Regional Solutions commits to the following:

Resource Development

- Working with partners to develop solutions and seize opportunities targeted to addressing the Oakridge air quality issue.

Mitigation Plan Implementation

- Regional Solutions will continue to work with the technical group to refine the plan to address the Oakridge air quality issue.

Jackie Mikalonis
Governor's Office South Valley/Mid Coast Regional Solutions program

Lane County

The woodsmoke issue in Oakridge affects every part of Lane County. A nonattainment area is a federal designation given to an area not meeting one or more National Ambient Air Quality Standards (NAAQS). The designation process provides opportunity for local and state negotiation with the EPA to best determine the appropriate nonattainment boundary. In the boundary determination, EPA considers factors such as locations and concentrations of industrial sources, county population density and traffic and commuting patterns. Most often an area includes its entire metropolitan statistical area. Lane County comprises the Eugene, OR metropolitan statistical area (MSA). It is the third largest MSA in Oregon and the 144th largest in the country.

Thus, the county-wide nonattainment designation has a series of consequences. It impacts our county health rankings, and has indirect impacts on our ability to foster economic development activities. Industrial facilities could be required to install pollution control equipment, take limits on their production, or otherwise find reductions in emissions by "offsetting" in order to expand. Given this context, Lane County commits to the following:

Near Term Commitments until the Project Manager is Hired

- Ongoing support via staff meeting attendance.
- Lane County will continue to advocate within the Ways and Means process during future Legislative assemblies that the DEQ receive ongoing funding that will land in the Residential Solid Fuel Heating Air Quality Improvement Fund.

Resource Development

- Coordination with the County Commissioners and Lane County staff to consider funding for community firewood program through Lottery Economic Development Funds.
- Identification of other resources or partnerships that might be accessible and pertinent to the Oakridge work that may or may not come directly from County funding.

Mitigation Plan Implementation

- Lane County will continue to support the implementation of the Mitigation Plan through meeting attendance and any coordination with County Commissioners as needed.

Sarah Means
Lane County, Community & Economic Development Manager

U.S. Forest Service (USFS)

The USFS is in full support of the Cities of Oakridge, Westfir, and surrounding industrial forest lands. The USFS is a longtime partner and neighbor and values this history and relationship. We are committed to do what is within our authority to contribute to improved air quality conditions to improve livability in these communities.

Mitigation Plan Implementation

- Identifying a contracting pathway for the City of Oakridge and Inbound LLC to access firewood resource for the community firewood program.
- Provide staff on a regular basis as part of the steering committee searching for beneficial solutions.

Duane Bishop
U.S. Forest Service, District Ranger

Inbound, LLC

Inbound is owned by a service-disabled veteran and has been based in Oakridge since 2006. Inbound LLC is proud to be: Oakridge community members; employing local people; performing firewise work, and sponsoring local junior high sports teams. In the summer, Inbound responds to wildland fires with our two 20-person hand crews, 12 wildland engines, and chipper. In the off season, it has been our pleasure to provide support for the community firewood program. In addition to providing essential warmth for the poor and disadvantage in Oakridge and West Fir, the wood we process is dry and burns much cleaner. Inbound hopes to play an even greater role in building the foundation of a stronger Community Firewood Program. Inbound, LLC commits to the following:

Mitigation Plan Implementation

- Participation in MOU with City of Oakridge to equipment share for the execution of the Community Firewood Program.
- Assistance with development of an ongoing community firewood program.

Dillon Sanders
Inbound LLC, Managing Director

Housing and Community Services Agency of Lane County (HACSA)

HACSA is committed to providing safe, affordable, and energy-efficient housing for low-income families, elderly citizens and persons with disabilities in Lane County. Since 2010, HACSA has weatherized 17 homes and served 45 heat crisis clients in the Oakridge/Westfir area. HACSA commits to the following:

Near Term Commitments until the Project Manager is Hired

- Assistance in the assessment/inventory of Oakridge residences (e.g., training of inspectors).
- Review of Oakridge inventory list to identify which homes can take advantage of programs.

Resource Development

- Assistance in the braiding of funding from other local, state and federal sources to leverage funding, specifically targeting low-income residents.

Mitigation Plan Implementation

- Implementation of ductless heat pumps and weatherization for qualified low-income residents.
- Develop annual RFP bid to include certified woodstoves and ductless heat pumps that would work best for the Oakridge context/needs.
- Coordination with CCO to identify opportunities of which households could receive a ductless heat pump to reduce the impact of health issues (e.g., asthma).

Steve Jole	Marc Hashagen
HACSA, Energy Services Manager	Energy Auditor

Good Company (GC)

Good Company is a management consulting firm with a mission to serve public and private clients to improve the social and environmental qualities of our community and society. GC served in a staffing capacity to assist the co-conveners Mayor Jim Coey and Senator Floyd Prozanski. GC provided assistance in developing the Resource Development Plan, the Mitigation Plan, funding sources identification and prioritization, meeting scheduling and facilitation. GC commits to the following:

Near Term Commitments until the Project Manager is Hired

- Assistance with Oregon DEQ grant application.
- Development of job description for program manager position – completed.
- Development of roadmap for next steps – completed.
- Fulfillment of Oregon Solutions requirements.

Resource Development

- Additional assistance with 20 hours to develop grant applications or any other work the Community of Oakridge needs to advance the program forward.

Joshua Proudfoot	Justin Overdevest
Good Company	Good Company

Oregon
Governor Kate Brown

Housing and Community Services
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November 29, 2017

To: Oakridge Woodsmoke Mitigation Workgroup

From: Tim Zimmer, Energy Services Manager

RE: Declaration of Cooperation

Oregon Housing and Community Services (OHCS) is pleased to participate and will provide representation for the Oakridge Woodsmoke Mitigation Workgroup through the Energy Services Section within the Department. Furthermore, OHCS will be actively engaged and work cooperatively within the workgroup through the following commitments:

- Provide technical assistance related to Energy Services programs and potential mitigation strategies.
- Direct funding for furnace repair/replacement to Lane County Human Services (LCHSD) for income-eligible households.
- Direct funding for Energy Assistance to LCHSD to support income-eligible households with their heating bills.
- Direct funding for Weatherization Services to LCHSD for income-eligible households.

Sincerely,

Tim Zimmer

Tim Zimmer
Energy Services Section Manager
Housing Stabilization Division
Oregon Housing and Community Services
725 Summer St NE Suite B
Salem, Or 97301-1266
P 503.986.2067 | M 503.508.5989
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TTY: 503-986-2100
www.oregon.gov/ohcs

November 29, 2017

To: Oakridge Woodsmoke Mitigation Workgroup

From: Tim Zimmer, Energy Services Manager

RE: Declination of Cooperation

Oregon Housing and Community Services (OHCS) is pleased to participate and will provide representation for the Oakridge Woodsmoke Mitigation Workgroup through the Energy Services Section within the Department. As a member, OHCS will be actively engaged and work cooperatively within the workgroup through the following commitments:

- Provide technical assistance related to Energy Services programs and potential mitigation strategies.
- Direct funding for furnace repair/replacement in Lane County Human Services (LCHSD) for income-eligible households.
- Direct funding for Energy Assistance to LCHSD to support income-eligible households with their heating bills.
- Direct funding for Weatherization Services to LCHSD for income-eligible households.

Sincerely,

Tim Zimmer
Energy Services Section Manager
Housing Stabilization Division
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tim.zimmer@oregon.gov

Lane County Public Health

Lane County Public Health's mission is to promote and protect the long-term health and well-being of individuals, families, and our community. Lane County Public Health has a vision of optimal health for all people in Lane County. Lane County Public Health commits to the following:

Near Term Commitments until the Project Manager is Hired

- Ongoing support via staff meeting attendance.

Resource Development

- Continued assistance in the cultivation of Trillium as a project sponsor of this effort.

Mitigation Plan Implementation

- Assist in identifying and providing the data that can help support health improvement in the community of Oakridge (e.g., school absenteeism, claims based data).

Karen Gaffney, Director
Lane County Health & Human Services

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Oakridge Woodsmoke Mitigation Plan

EXECUTIVE SUMMARY

Description of Need

The residents' health of Oakridge, Oregon is compromised by soot from home-heating wood burning during the winter months. For the last two decades, the city has been in violation of EPA's federal air quality standards for PM2.5. This means the residents are more likely to have respiratory and cardiac challenges, disease and/or are more likely to get cancer. Residents of Oakridge have a larger portion of poverty than the state average, with 21.9% of residents falling below the poverty level *and* they are subject to greater levels of air toxicity due to lack of financial means to participate in heating upgrades or weatherization projects. A broad coalition of public agencies, non-profits and private businesses has worked diligently over many decades to implement the needed heating system changes and program development to ensure community health while keeping people warm in the winter. The remaining work calls for installing 60 ductless heat pumps and 15 EPA certified wood stoves, as well as weatherizing 10 homes. Additionally, the program will provide education, a Community Firewood Program (to burn dry seasoned wood instead of green wood) and heating bill assistance to ensure the entire community can benefit.

Proposal Outcomes

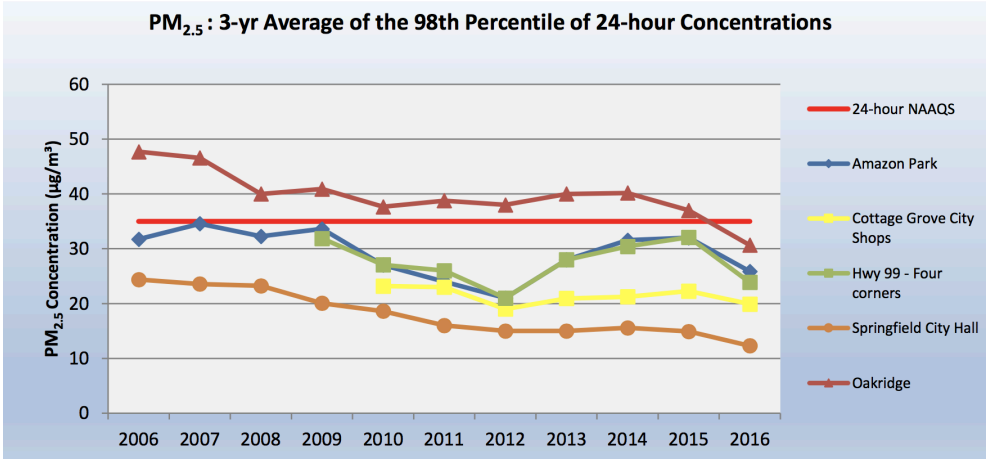
- **Improve and sustain local community health and air quality:** The City of Oakridge airshed is moving into attainment and has made considerable progress since 2007, where the 24-hour particulate matter count was 47 micrograms per cubic meter (µg/m3). It is the expressed goal of this project to decrease and sustain that number to below 30 µg/m3.
- **Ensure affordable and clean heating options for residents:** This program plans to offer a combination of approaches – a variety of heating systems, community firewood program, education, and compliance to reach all residents.
- **Economic development:** By reaching air attainment, the City of Oakridge and Lane County will be free of regulatory restrictions on new business or business expansion. Further, the Community Firewood Program portion of this work intends to provide work to 5-10 Oakridge residents over the winter months, a difficult timeframe for finding local work.
- **Improved utilization of wood:** The Community Firewood Program will ensure that stoves burn seasoned wood which equates to less wood being burned and lower air toxics. Also wood for this program is being supplied by sources that might not otherwise be used (i.e. slash piles which produce more emissions, but do not heat residents).

Goal of this Plan

- **Develop a roadmap and funding strategy:** For implementation to apply existing and new resources and take action on air quality issues in the short- and long-term considering the broad health, environmental and economic consequences.
- **Leverage a combination of public, private, and local contributions:** Combine funding to implement and manage ***$1,051,000 in project costs***.
- **Attainment with a maintenance plan:** This plan can also serve the purpose of meeting some of the elements of the EPA's attainment requirements with a maintenance plan which sets the approach to ensuring that Oakridge maintains air quality thresholds and standards for the next 10 years.
- **Demonstrate efficacy by tracking strategies and investments to show progress:** The Program Manager will include analysis of established baseline pre-and post switch out.
- **Replicable program:** Oakridge is but one of many rural communities in Oregon that face woodsmoke concerns. Completing the multifaceted approach to education, enforcement, and financial assistance, this plan could be used by other communities to address their concerns.

Needs and Challenges

- **Air attainment:** The City of Oakridge has been in nonattainment and in violation of federal air quality standards for fine particulate matter due to regular wood smoke air pollution during the winter months until very recently. Oakridge is currently close to achieving attainment from the Environmental Protection Agency (EPA) 24-hour national air quality standards for the fine particulate matter ($PM_{2.5}$) standard of 35 micrograms per cubic meter (µg/m3), based on an average of the most recent three years of federal reference monitoring data. Local climate and topography combined with low wind speeds make the City of Oakridge prone to wintertime temperature inversions, and poor atmospheric dispersion. Without addressing the use of uncertified stoves and the improper use and type of wood (green wood rather than seasoned wood); Oakridge will risk going out of attainment and losing federal funding dollars which limits industrial economic development options within the community and Lane County.



- **Challenge to air attainment by wildfire:** Climate and vulnerability assessments conducted by Oregon State University's Oregon Climate Research Institute (OCCRI) show that wildfires in the Cascade Range region are anticipated to occur more frequently (number of years between fires is anticipated to go down 42%) (OCCRI, 2017). The National Climate Assessment projects that the area burned will increase 400%-500% (NCA, 2014). As a comparison to Lane County's Oakridge – Jackson County is projected by OCCRI to increase in average intensity of wildfire-related particulate matter by 81%. Oakridge could apply to EPA for an exceptional event, but in the face of more *regular* wildfire events, it could also pose a challenge to attainment or continuing to apply for exceptions.
- **Reattainment process:** A reattainment area is a geographically defined location that is currently designated in nonattainment by the U.S. EPA, but has three consecutive years of monitoring data that shows the area is meeting the PM2.5 standard and has not yet been re-designated to be in attainment. Reattainment is a state classification, not a federal one, that could allow for some flexibility for industrial sources, as opposed to the stringent requirements established under a nonattainment designation. For an area to be reclassified as in reattainment, the DEQ or LRAPA would submit a request for designation to the Environmental Quality Commission (DEQ's decision making body). The EQC would then decide whether to designate the area as in reattainment under state rules. The area would still have to submit a maintenance plan and have it approved by EPA before it would be reclassified as in attainment.
- **Community health:** Residential wood smoke contains $PM_{2.5}$, carbon monoxide (CO), toxic air pollutants (e.g., benzene and formaldehyde) and other gases (e.g. methane and black carbon) which contribute to cancer risk and other significant community health issues, such as asthma and heart problems.
    - Oregon Health Authority: Kirsten Aird of Oregon Health Authority (OHA) offered to assist the City of Oakridge in collaborating with the school district to acquire data on school absenteeism. OHA staff believes that school absenteeism may be the best data source for showing a baseline and improvement of air quality on community health.

- Trillum: Both Dr. Luedtke of Lane County Public Health and OHA have also mentioned the opportunity and importance of tracking claims data through the CCO Trillum. Also, there is a possibility of tracking medications and Medicaid data for health-related issues.
- Fire EMS data: Local emergency services staff shared data on emergency visits in Oakridge between January 2015 and May 2017 for asthma, chest pain discomfort, COPD, and respiratory distress. During that timeframe 9 visits is the monthly average while winter visits increase to approximately 13 monthly visits.
- ESSENCE data: In Lane County, Oregon ESSENCE data (a project of ESSENCE - Electronic Surveillance System for the Early Notification of Community-Based Epidemics) during the recent fires showed that: (1) during the first full week in September, weekly emergency department (ED) and urgent care visits due to smoke were 86% higher than expected based on historic trends, and (2) on September 5, 2017, there were 583 asthma-related ED and urgent care visits, a 20% increase over the number of visits expected for that day. Patients age 18-44 accounted for the largest increase in visits.
- Local pharmacy: During the summer wildfire season which caused significant air quality conditions for Oakridge, the local pharmacy sold triple the number of inhalers that were normally sold the year before (~200 inhalers vs. 70). Traditionally, 100-120 inhalers are sold during the winter season which indicates the potential trigger of woodsmoke.
- Five Rivers Clinic: Doctor Mitch Boriskin anecdotally mentioned the number of pulmonary cases, such as COPD, asthma, pneumonia, and asthma are higher than normal. Between August 28th, 2017 and September 7th, 2017 there were 5 cases of chronic obstructive pulmonary disease (COPD), 3 cases of asthma, and 3 cases of pneumonia. He mentioned that he is still seeing patients come in mid-October that are suffering from the woodsmoke episodes from Late August to early September. As a comparison, Five Rivers had 2 cases of COPD, 4 cases of asthma, and 0 cases of pneumonia over the same timeframe the year before. Five Rivers purchased hundreds of masks for the community and distributed them to different clinics in the area free of charge during the most recent smoke event.

- **Changeout funding can be expensive per household:** It is not simply the cost of purchasing a device (e.g., $1,500 for a new certified woodstove to $3,000 for the purchase of a new electric ductless heat pump) but also installation, which can double the cost, making the total cost of a full changeout and installation between $3,000-$6,000. If weatherization is needed, which ensures the heating device will work at its optimum efficiency, and at the lowest level needed, can increase the per-household cost to $10,000. Administering funds and managing the changeouts can be difficult for cash strapped local nonprofits and communities (Oregon DEQ, 2016).
- **Improper burning or burning green wood a continuing challenge:** A key issue is that some Oakridge residents do not burn dry, seasoned wood. When wet firewood is burned,

the fine particulate emissions cannot be properly abated, regardless of using a certified wood stove. A Community Firewood Program has meet the need for a reliable source of affordable, seasoned firewood; however, that program needs funding to build a stronger foundation and implement the elements to ensure that it can be sustained into the future. The program will continue to provide education about clean wood burning practices and information about programs that offer home heating and weatherization assistance programs. The use of moisture meters (to identify the level of moisture in wood) and tarps (to keep wood dry) are critical elements of this project.

KEY EPA BURN WISE MESSAGE:

IF YOU CHOOSE TO BURN WOOD, BURN THE RIGHT WOOD, THE RIGHT WAY, IN THE RIGHT APPLIANCE

Strategy

- **One size does not fit all – the program requires a set of innovative, targeted approaches:** Successfully reducing woodsmoke requires implementing multiple solutions (e.g., ductless heat pump installations, woodstove changeouts, weatherization, Community Firewood Program, community education, enforcement and oversight) while at the same time navigating the broader issues of health, forest management, and economic development. The City of Oakridge and its partners have developed a three-part strategy that focuses on (1) education, (2) enforcement, and (3) financial assistance. Related short-term and long-term measures for each area have been identified and are included in the proposal summary.
- **Resilient, affordable solutions feasible for all community members:** Inconsistent electricity service due to weather, prohibitive costs to maintain or pay for ductless heat pumps or certified woodstoves, and cultural traditions of wood fires each pose challenges to a single solution or changeout working for all community members. Further, at the moment of the Cascadian Subduction earthquake, woodstoves are likely to be the only heat available for an extended period of time.

Permanent	Operational - Ongoing	Episodic
Ductless Heat Pumps (DHP)	Firewood program	Curtailment - RYF
Woodstove replacements	Education - small, hot, low/no damper fires	
Weatherization	Opacity	
	Code Enforcement	
AQ Coordinator		

Investment

The projected costs for all Oakridge Air Attainment initiatives is $1,051,000. The City is working with its partners to find these funds through grants and other initiatives. Assistance from the state and federal government will be paramount to the success of our community. ***Over 90% of the total requested funds are one-time funds that are needed to implement this program. The program could be completed within 3 years depending on the timing of the funding.***

Project Element	Cost	One-time or Ongoing Expense	Total
PROGRAMS			**$601,000**
Education and Advertising	$7,500	Mostly one-time (but smaller ongoing budget item)	$21,500
Municipal Court Diversion	$5,000	Ongoing	$15,000
Ductless Heat Pumps	$4,000 x 60 units	One-time	$240,000
Certified Wood Stove Replacement	$4,000 x 15 units	One-time	$60,000
Home Weatherization	$10,000 x 10 houses	One-time	$100,000
Community Firewood	$80,000 (self-loader) $53,000 (processing equipment) $30,000 (mini-excavator)	One-time (equipment)	$163,000
Red Day Credits	$500	Ongoing	$1,500
STAFF			**$450,000**
Program Manager (0.6-0.7 FTE)	$75,000	One-time (over course of implementation)	$225,000
Code Enforcement Officer (0.5-1.0 FTE)	$75,000	Mostly one-time (following implementation smaller ongoing budget item covered by LRAPA)	$225,000
TOTAL			**$1,051,000**

Breakdown of capital, program and staff expenses by type

Capital equipment and installation expenses: $563,000 (53% of budget)

- Ductless heat pumps: $240,000 ($4,000 per unit, 60 units)
- Certified woodstoves: $60,000 ($4,000 per unit, 15 units)
- Weatherization: $100,000 ($10,000 per unit, 10 units)
- Community firewood: $163,000 ($80,000 self-loader, $53,000 processing equipment, $30,000 (mini-excavator)

Program expenses: $53,000 (5% of budget)

- Education and advertising: $21,500 (over three years) – e.g., DVD program for schools, clinics, diversion program
- Municipal court diversion: $15,000 (over three years)
- Red day credit: $1,500 (over three years) red day payments for low income $3/day

Staff and project management expenses: $450,000 (42% of budget)

- Program manager: $225,000 (over three years) project manager, grant writing experience
- Code enforcement officer: $225,000 (over three years)

Program Results and Investments to Date

	Air Quality (µg/m3) - 24 hour PM2.5 Levels	Investment	Ductless Heat Pump & Ducted Systems	Certified Woodstoves	Weatherization	Community Firewood Program	Heating Payments	Code Enforcement Officer	Air Attainment Coordinator
Baseline (2007)	47								
Implementation to Date (to 2017)	31	LRAPA: $3.1 million St. Vinnies: $400,000 Lane Electric: $321,500 HACSA: $170,000	124 (Lane Electric) 55 low-income (Lane Electric)	90	17 (HACSA)	54 cords annual average	45 (HACSA)	Co-funded by City of Oakrdige & LRAPA	
Plan (2018-2020)	<35	$1,051,000	60*	15*	10*	200 cords annually	XX exemption list	$75,000 per year	$75,000 per year
Organizations Involved	LRAPA	Lane County Oregon DEQ	Lane Electric, HACSA	HACSA	HACSA, Lane Electric	US Forest Service, Inbound LLC, LRAPA, City of Oakridge, SWFC	HACSA, OHCS	City of Oakridge, LRAPA	City of Oakridge

PROPOSAL SUMMARY

Efforts to Date

The City of Oakridge has worked for more than ***two decades*** to resolve air quality issues in the community and airshed. This request for funding aims to finish this effort.

- **Warm Homes, Clean Air project (2005-2006):** "The Warm Homes Clean Air program, run by the Lane Regional Air Protection Agency (LRAPA), was funded by 11 partners. The program not only included a woodstove changeout program but also a weatherization and home repair program. Partners included local manufacturers of woodstoves and dealers that offered rebates on new stoves, St. Vincent De Paul which provided over $400,000 toward weatherization/home repair from a grant, as well as state and local housing agencies who provided services. Through this effort, residents were offered a tailored set of options designed specifically for them using a single application form, eliminating the need for residents to search for available funding programs. Rebates were provided - $2,500 for oil or propane, $2,000 for a pellet stove, and $500 to change out a certified woodstove to pellet, oil, propane or electric." (Oregon DEQ, 2016)
- **ARRA Program:** "In 2009, Oregon DEQ secured $2 million to conduct woodstove changeouts. The funding came from the Oregon Department of Energy's State Energy Program and it was part of 2009 American Recovery and Reinvestment Act funding." The ARRA program changed out 90 woodstoves in Oakridge between 2009 and 2011 (LRAPA, 2016).
- **Local community effort and working group:** Current Mayor Coey brought together a working group in 2014 to address the woodsmoke issue and identify opportunities. Members of the workgroup including City staff, LRAPA, Southern Willamette Forest Collaborative, U.S. Forest Service, HACSA, Lane Electric, St. Vincent de Paul. This workgroup developed and implemented a Community Firewood Program which sold 170 cords of dry, seasoned wood to replace green wood which contributes to air quality issues. Roseburg and Seneca both donated wood last two burning seasons.
- **Code enforcement:** LRAPA and Oakridge have co-funded an enforcement program that serves to educate as well as fine community members that burn inappropriately on red days. Those that are fined are able to participate in a diversion program that offers a reduction in fines but requires participation in education on wood burning and air quality.
- **LRAPA past investment:** LRAPA has been an important contributor to the efforts in Oakridge and has contributed $3.1 million between 1993 and 2017. LRAPA is planning on spending $112,200 during 2018. Participating in different forms such as woodstove replacements, air quality monitoring, attainment planning, and implementation. The table below illustrates the level of involvement that LRAPA has contributed.

Oakridge Category	Beginning	Through	Total Cost (Current $)	Notes	Annual 2017-2018
Woodstove Replacement Projects	1993	2011	$763,000	Projects in 1993-1996, 2006-2009, and 2010-2011.	$0
Air Quality Monitoring & Reporting	1987	2017	$1,800,000	Average of $60,000 per year. Periodic special studies.	$65,700
PM10 and PM2.5 Attainment Planning	1994	2017	$383,500	Attainment planning in 1994-1996, 2011-2012, and 2015-2017.	$27,500
Implementation (LRAPA rules, support to city staff)	1996	2017	$237,500	AQI, HWH forecasts, additional support of city staff in 2014-2017.	$19,000
Total	**1987**	**2017**	**$3,184,000**		**$112,200**

- **DEQ taskforce:** Statewide effort led by Rachel Sakata at Oregon DEQ to improve air quality in communities across Oregon. Recent Oregon state legislature session passed $250,000 in funding for woodstove changeouts and brings together community leaders that are addressing this issue.
- **Lane Electric:** Since 2012, Lane Electric has installed ducted and ductless heat pumps for 124 regular and 55 low-income residents. The financial contribution for these installations is $321,500 ($112,500 for regular units, $209,000 for low-income). Oakridge residents contributed is approximately $750,000 for these ducted and ductless systems.
- **Lane County HACSA:** Since 2010, HACSA has weatherized 17 homes and served 45 heat crisis clients in the Oakridge/Westfir area.

Progress and Current Need

The City of Oakridge has conducted inventories over the past two years to determine the number of residences that require a woodstove changeout, DHP installation, and weatherization. Currently, Lane Community College Energy Management program students are conducting an inventory of residences to determine the precise number of residences that need woodstoves, DHP units, and weatherization. This inventory will be completed in *October 2017* and will refine the program rollout and budget.

Certified wood stoves

- XX Total number of residences that *have installed* certified wood stoves
- XX Total number of residences that *need* certified wood stoves
- XX Total number of *low-income* residences that *need* certified wood stoves

Ductless heat pumps

- XX Total number of residences that have installed DHP systems
- XX Total number of residences that *need* ductless heat pumps
- XX Total number of *low-income* residences that *need* ductless heat pumps

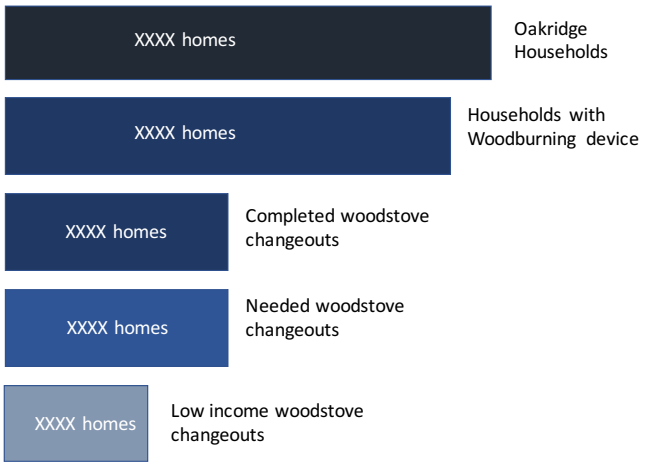
Weatherization

- XX Total number of residences that have weatherized
- XX Total number of residences that *need* weatherization

- XX Total number of *low-income* residences that *need* weatherization

Community firewood program

- XX Total number of residences that have participated in community firewood program
- XX Total number of residences that want to participate in community firewood program



Program Rollout

- **Project Prioritization:** Divide program over three-year period and implement installations prioritizing zones by proximity to pollution intensity. Will also consider prioritizing residences with wood as primary source of heating, providing the greatest incentive to those that are going to DHP, then pellet stoves, and then compliant woodstoves, quality of the fuel (green vs. seasoned).

Existing Short-term Actions

Education

- **Materials:** The City and partners distribute educational materials explaining wood burning advisories, wood-burning techniques, and alternatives to wood heat.
- **Video:** The City of Oakridge is developing educational video explaining wood smoke pollution, best practices for wood burning, and home heating advisories.
- **Diversion program:** the Oakridge municipal court creating a diversion program for first time offenders, offering an educational course instead of a fine.

Enforcement

- **Code enforcement:** The City revised local wood burning codes to clarify burn ban exemptions, fines, and the home heating exemption application.

- **Smoke School:** Oakridge Police Department and City staff attended specialized courses to become certified to read smoke opacity. The OPD can now issue tickets for wood burning violations.
- **Code enforcement officer:** LRAPA and the City of Oakridge funded a part-time City of Oakridge code enforcement position. This position will focus on wood burning code enforcement from Nov-Feb.

Financial Assistance

- **Lane Electric Cooperative Low-Income Assistance program:** Offers free (up to $3,800) ductless heat pumps (DHPs) and up to $1,500 home weatherization for low-income home owners. There is also a member assistance program that will reimburse low-income customers for electric heat bills on "red days" to encourage less wood heating on those days.
- **Community firewood program:** The City of Oakridge, the Southern Willamette Forest Collaborative, LRAPA, Inbound LLC and other partners implemented a Community Firewood Program to provide seasoned firewood at affordable rates to the community. The sustainability and viability of this program relies on accessing equipment to perform the cutting, loading, and hauling of the firewood. The wood would be sourced cut treetops (wood that would otherwise be burned and contribute to air quality issues) from the U.S. Forest Service.

3-Year Planned Actions

Education

- **Program manager position:** Hire a full-time program manager to implement all air attainment programs and act as a resource development lead and as a project manager between partner agencies and organizations.
- **Messaging:** Create targeted messaging for youth and the broader population.
    - Create interactive presentations for school age children
    - Talk face-to-face with people and provide education materials at the local food pantry, senior meals, church luncheons, and community events.
    - Train volunteer community members to act as ambassadors connecting neighbors and friends to information and resources.

Enforcement

- **Code enforcement position:** Extend the code enforcement officer position and involvement for all Oakridge residents.

Financial Assistance

- **Rollout program:** Create a pilot program targeting 60 burning exempt (meaning low-income) residences for DHP and certified woodstove installations.
- **Expand program:** Increase coverage of the DHP program to the entire community, both homeowners and renters, while allowing residences to keep certified wood stoves as a secondary source of heat, for cold days and during electricity blackouts.
- **Utility bill assistance:** Offer wood-dependent homes compensation for electric bill on red days.
- **Weatherization:** Provide comprehensive weatherization for 10 residences in Oakridge.
- **Reduce green wood use:** Continue to manage community firewood program and reimburse homeowners for woodshed building materials.

Community and Regional Partners

Primary partners include:

- **City of Oakridge:** is located on State Highway 58 in the foothills of the Western Cascade Mountains and is surrounded by the Willamette National Forest. The city population is 3,205. The Mayor, City Manager, and Planner provide the management and oversight of the efforts.
- **Lane Regional Air Protection Agency (LRAPA):** LRAPA is a local government agency that monitors the airshed and collects air quality data and acts as the local air quality regulator and program administrator. LRAPA has a key understanding of the Oakridge airshed and the environmental impacts that come with home wood heating.
- **Southern Willamette Forest Collaborative (SWFC):** SWFC is a local nonprofit organization under the fiscal sponsor Cascade Pacific. The SWFC is a community-based forest collaborative group that brings together community members, elected officials, community organizations and state and federal agencies to find forest management solutions for the Southern Willamette forest area.
- **St. Vincent De Paul (St. Vinnie's):** Is Lane County's largest nonprofit human services organization, helping over 84,000 people annually. The St. Vinnie's Oakridge Service Center includes a retail thrift store, laundromat, and business incubator. St. Vinnie's also manages two local mobile home parks and provides social services such as the Oakridge Low Income Home Energy Assistance Program (LIHEAP).

Additional partners include:

- American Lung Association
- Business Oregon
- Catholic Community Services
- EPA
- Ford Family Foundation
- Inbound LLC
- Lane County
- Lane County Housing Authority (HACSA)
- Lane Electric
- Meyer Memorial Trust
- NEDCO

- Oregon Gov. Regional Solutions
- Oregon Department of Forestry (ODF)
- Oregon Department of Energy (ODOE)
- Oregon Department of Environmental Quality (DEQ)
- Oregon Community Foundation (OCF)
- Oregon Housing and Community Services (OHCS)
- Reser's Foundation
- Roseburg
- Seneca
- Southern Willamette Forest Collaborative
- Sustainable Northwest
- United Way of Lane County
- U.S. Forest Service (USFS)
- Upper Willamette Community Development Corporation

Program Administration and Management

Roadmap of Program Manager and Mitigation Plan Implementation

1. Before Funding and Hiring Program Manager (Dec 2017 - March 2018)
1. Development of Program Manager job description
2. Complete DEQ RFP proposal to use most of funding for Program Manager
3. Completion of 3 to 4 grants between January to March
2. Refine and Implement Resource Development Plan via Program Manager (March 2018 - April 2019)
1. City of Oakridge will host Program Manager and provide office space, internet and phone logistics
2. Program Manager duties
• Develop grant applications (7-10 grants per year) and receive input and review from stakeholder partners
• Track grant deadlines and funding source cultivation via Excel spreadsheet management tool
• Schedule and plan individual donor outreach and events
• Cultivate donors for program funding
3. For funding applications determine if City of Oakridge can apply or if pass through entity is required. If so SWFC can act as sponsored 501(c) 3 organization with Cascade Pacific as fiscal sponsor; SWFC can then lend that staff member to the City of Oakridge
3. Mitigation Plan Rollout and Implementation (2018 - 2020/2021)
1. Program Manager duties
• Project management and execution of program implementation outlined in for Oakridge Woodsmoke mitigation plan
• Coordinate with residents and the contractor/entity (contractor, HACSA, Lane Electric) to residents receiving assistance
• Arrange regularly scheduled quarterly meetings with Oakridge Woodsmoke Mitigation group
• Track air quality data via Lane Regional Air Protection Agency and U.S. EPA
• Manage updates to the mitigation plan and EPA maintenance plan in coordination with LRAPA and other stakeholders
• Attend LRAPA board meetings quarterly
• Coordinate education program via the school districts and community
• Coordinate with Oregon Health Authority on health data from school districts and clinics to demonstrate baseline and progress on health issues
• Assist in the education of community members on woodsmoke issues, proper burning, and resources available
• Assist in the management and execution of the community firewood program
• Assist in tracking, monitoring and gathering information to demonstrate project execution and success; comply with funding source requirements for monitoring and evaluation
• Initiate and facilitate projects and tasks

Timing of project staff

The program manager role is most likely to carry out multiple project types (funding development and project implementation) but based on the individual's skillsets this work might be conducted by a number of different individuals and organizations. For instance, LCOG, University of Oregon's Nonprofit Management program, or the Resource Assistance for Rural Environments (RARE) program could provide assistance in one of these areas. HACSA, Enhabit or some other similar organization with specific expertise could assist with implementation.

It is difficult to predict at the outset the timing and quantity of funding, therefore, while the program manager will initially be focused on resource development part of their job description may evolve into more of a project management role if larger contributions and funding sources arrive within the first 6-12 months in 2018. Therefore, it is important to recognize that the following tasks in sections 2 and 3 below be considered in parallel if funding lands earlier in the process.

Program Manager

Preferably, the City or program sponsor will hire a contractor position, whether an individual or firm, to manage the program elements (project management, funding oversight, grant identification and writing, community engagement and education, monitoring and evaluation). Ideally, this individual would be allocated 0.6-0.7 FTE time to this project over a three-year period. The following organizations could assist this position either by hosting or providing expertise:

- Southern Willamette Forest Collaborative
- St. Vincent De Paul
- RARE Participant
- Lane Council of Governments (grant writer)
- University of Oregon (RARE program)
- Lane County HACSA (provide implementation assistance for weatherization and woodstove installations)

Code enforcement

Continue to fund a code enforcement position that can oversee community heating over the winter months. The position would be a 0.5-1.0 FTE based on other funding and position responsibilities. The following organizations could provide or assist this position:

- City of Oakridge and LRAPA

Community firewood program

While the program manager would be involved in the program continuation and management, it is likely that a third-party such as Inbound LLC would be involved in the execution of this project. The City of Oakridge and U.S. Forest Service are important partners and have already planned the cooperative efforts amongst the three groups. The City of Oakridge would be the owner of equipment (e.g., front loader, wood splitter) necessary to perform the preparation and transportation of wood and a MOU will be in place in order to allow Inbound LLC the use of that equipment.

Appendix: Additional Materials

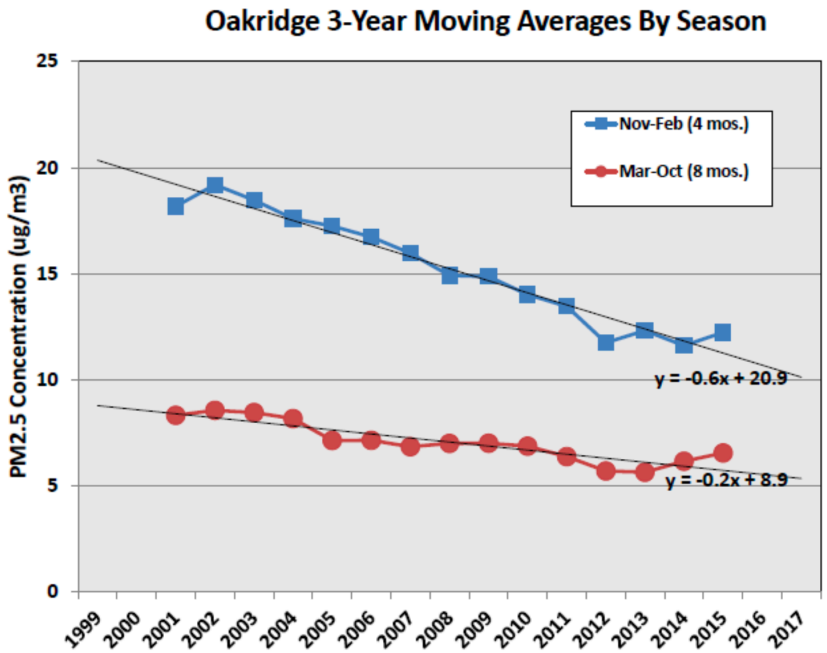
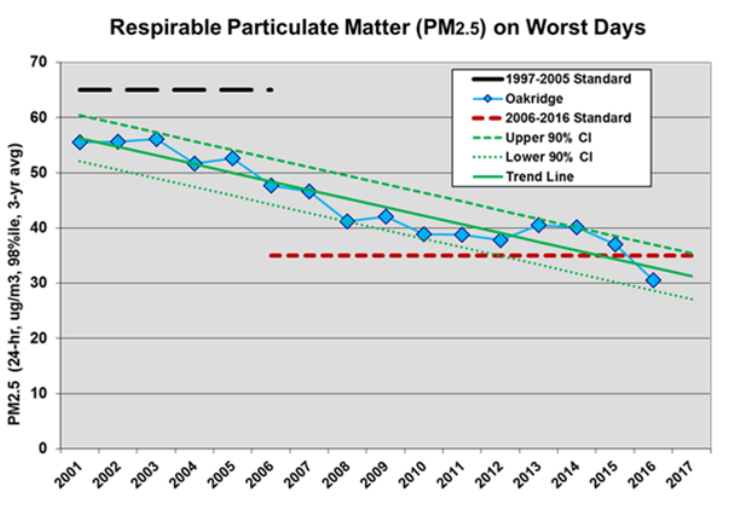


Figure 9: $PM_{2.5}$ Seasonal Trends for Oakridge.

http://www.lrapa.org/DocumentCenter/View/1848

Table 10: 2016 Estimated Typical Season Day and Worst-Case Day $PM_{2.5}$ Emissions.

Source Category	Base Year 2008		Future Year 2016	
	Emissions %	$PM_{2.5}$ µg/m3	Emissions %	$PM_{2.5}$ µg/m3
Residential Wood Combustion	79.6%	31.4	74.1%	20.5
Industry	0.0%	0.0	1.2%	0.3
On-Road Vehicles	8.4%	3.3	7.3%	1.9
Other	2.1%	0.8	3.0%	0.8
Background & Secondary Aerosols	9.9%	3.9	14.5%	4.0
Total	100.0%	**39.5**	100.0%	**27.5**



Challenges: Wildfire Contribution to Particulate Matter

Oakridge will experience a growing challenge in the summer months in the increased incidence of wildlife. The following two graphics show the planned. These types of events will likely adversely affect Oakridge's air quality and reattainment plan adherence.

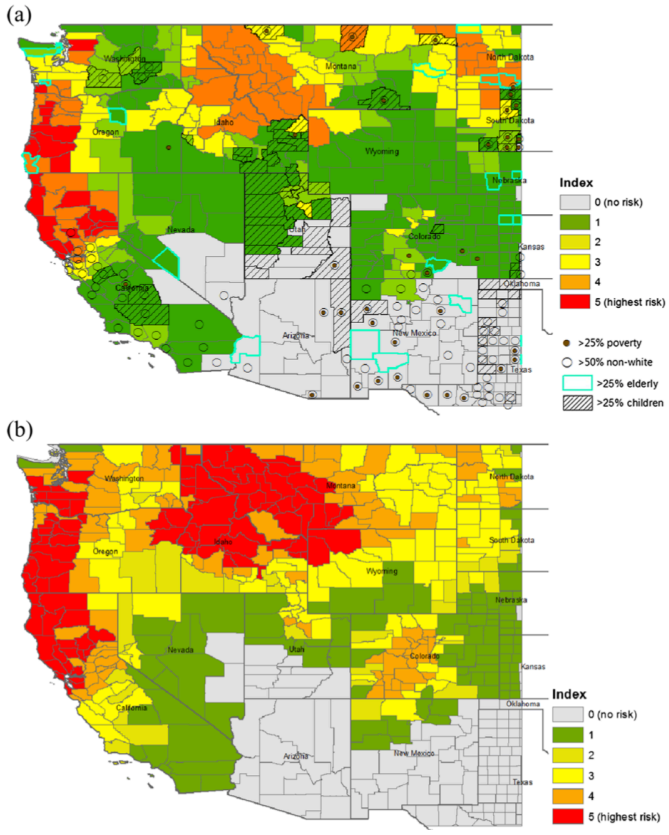


Fig. 3 Fire Smoke Risk Index (FSRI) during fire seasons (May-October). Panel (**a**) is for present day (2004–2009) and panel (**b**) is for future (2046–2051) under climate change

(Liu et al, 2016)

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Oakridge Woodsmoke Mitigation Program Manager
JOB DESCRIPTION

Job Title	Woodsmoke Mitigation Program Manager	Reports to	City of Oakridge staff
Employment Status	0.6-1.0 FTE		

General Description

This position functions as the program manager in the effort to fund and manage the woodsmoke mitigation initiative. The responsibility of this manager requires multiple skillsets including: resource development (i.e. relationship development and grant writing), project management, coordination, research, community engagement.

Required Knowledge, Skills and Abilities

- Candidate must be committed to helping to reduce the impact of woodsmoke in Oakridge and understanding the air quality issues
- Resource development and grant writing expertise
- Project management, organizational and detail-oriented skills necessary
- Ease in communicating in different settings and contexts (individual citizens, public agencies, potential funders)
- Self-motivated, ability to manage a collaborative effort with City of Oakridge

Essential Functions

- Develop grant applications (7-10 grants per year) and receive input and review from stakeholder partners
- Track grant deadlines and funding source cultivation via management tool (Excel spreadsheets)
- Schedule and plan individual donor outreach and events
- Project management and execution of program implementation outlined in for Oakridge Woodsmoke mitigation plan
- Coordinate with residents and the contractor/entity (contractor, HACSA, Lane Electric) to residents receiving assistance
- Arrange regularly scheduled quarterly meetings with Oakridge Woodsmoke Mitigation group
- Track air quality data via Lane Regional Air Protection Agency and U.S. EPA

- Manage updates to the mitigation plan and EPA maintenance plan in coordination with LRAPA and other stakeholders
- Attend LRAPA board meetings quarterly
- Coordinate education program via the school districts and community
- Coordinate with Oregon Health Authority on health data from school districts and clinics to demonstrate baseline and progress on health issues
- Assist in the education of community members on woodsmoke issues, proper burning, and resources available
- Assist in the management and execution of the community firewood program
- Assist in tracking, monitoring and gathering information to demonstrate project execution and success; comply with funding source requirements for monitoring and evaluation
- Initiate and facilitate projects and tasks

Sources and Resources

Liu JC, Mickley LJ, Sulprizio MP, Dominici F, Yue X, Ebisu K, Anderson GB, Khan RFA, Bravo MA, Bell ML. 2016. Particulate air pollution from wildfires in the Western US under climate change. Climatic Change 138 (3–4): 655–666. DOI: 10.1007/s10584-016-1762-6.

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Oakridge Resource Development Plan & Roadmap

Note: Details of the project plan, strategies, need, competitive landscape, outcomes, and project budget are part of the Oakridge Woodsmoke Mitigation Plan, a separate document. The following plan provides direction in concert with the Funding Sources Excel spreadsheet.

Purpose of this Document

This memo outlines the funding strategy for Oakridge Woodsmoke Mitigation Plan to fund approximately *$1,051,000 in project costs.* The plan consists of the following elements:

- **Overview of Resource Development Process and Tools:** This document provides an approach to pursue funding sources to implement and manage resource development and fundraising efforts. The plan provides tools that the stakeholder group developed through the Oregon Solutions process to pursue different sources of funding (e.g. individual donors, philanthropic organizations).
- **Description of Roadmap for Project Coordinator (to be hired with DEQ funding):** Provides a high-level overview of the tasks necessary for the incoming Program Manager

Overview of Donor Cultivation Cycle

The following are the four main parts of the donor cultivation cycle and the anticipated amount of effort that should be dedicated to each stage.

1. Identification of potential funders (25% of time)
2. Donor cultivation and relationship development (60% of time)
3. Solicitation of funding (5% of time)
4. Stewardship and recognition of donors (10% of time)

Identification of Funding Options

To fund our Oakridge Woodsmoke program's multiple project elements (e.g., equipment, project staffing) accessing different types of funders is helpful and necessary.

- Individuals donors
- Public funding
- Private funding
- Foundation grant funding
- Municipal funding

In the identification of potential funding options, Good Company developed a spreadsheet for complete lists of funding options by type. As a tool, the Excel spreadsheet contains multiple tabs and is a good place to continue to identify, prioritize, and track potential funders by type.

public, private funding and foundation grant funding options were well researched and identified. As an example, Good Company identified 300 plus Oregon-based organizations and ~180 U.S. granting bodies (see Funding Sources spreadsheet for complete list).

Prioritizing Funding Options

This section identifies some of the organizations and points to consider. Funders are going to be most interested in funding projects that align with their interest and values. Finding the most tightly aligned connection between funders and making the proper ask will save time and ensure the best chance of success.

Individual Funding Options

- Individual funders represent 70%+ of charitable giving but accessing these donors generally requires a higher level of time, effort, and sophistication.
- Examples that are relevant to Oakridge include: Leveraging the outdoor recreation community (e.g., mountain biking, Travel Oregon); high school alumni, and business leaders in the community that may have important connections.
- If developing a social media or crowdsourcing type campaign (e.g., Kickstarter, GoFundMe) ensure that you have the technical capabilities to deliver it effectively.
- Small community donations could include requests for donations that could pay for educational materials.

Foundation Grant Funding

- Of the 300 plus Oregon-based organizations, Good Company shortlisted a group of 70 based on the funding interests (see Funding Sources spreadsheet for complete list).
- Good Company did not prioritize the national granting bodies but this could be a worthwhile effort for a Program Manager.
- Once the grant funders were prioritized into three tiers (A-C) with A being the best fit to C being a possible fit, Good Company identified the board members that are involved on each board.
- The Excel spreadsheet outlines the granting bodies by name, board of directors, state, funding interest, total assets, annual giving, funding cycle, and website.

Public – County, State and Federal Agencies and Organizations

Examples of public entities that have been helpful to this project include:

- Lane County
  - Lane Regional Air Protection Agency (LRAPA)
  - Lane County Home Energy Assistance Program (LIHEAP)
  - Lane County Housing Authority (HACSA)
  - Lane County lottery dollars
- State
  - Oregon Housing and Community Services (OHCS)
  - Oregon DEQ woodsmoke mitigation funding
  - Oregon DEQ air quality mitigation funding (i.e., one time competitive grant funding)
- Federal
  - U.S. Forest Service

Private Funding Options

- Healthcare: Trillium Coordinated Care Organization (CCO)
- Local utility: Lane Electric
- Union Pacific

The first table in the Appendix outlines the prioritized list of each type of funder. The dark blue color means that this source of funding is prescreened for this project funding type (e.g. woodstove, staffing, etc.) while the white shade means that it must be researched to determine if the funding is a fit for the Oakridge Program. A separate spreadsheet tab in the Funding Sources spreadsheet tool has the website addresses and funding timelines for each organization. The funding cycle is listed at the end of this document in Table 4.

Cultivating the Relationship

Following identification and prioritization of funders, we had the woodsmoke working group identify which organizations that they had a professional or personal relationship with. The following table identifies which organizations that City of Oakridge and its partners have current relationships and the second tier of organizations in the table below references relationships identified by our partners.

Good Company then developed a prospect cultivation table (see Table 3 on page 9 of this document and also in the excel workbook) that outlines the prospect, tier (A-C), team member responsible for outreach, stage of cultivation, what the next steps are and any pertinent notes. The table below shows the initial list of organizations identified by the stakeholder group and their relationships. LinkedIn is also another tool that partners should use to see whether they have connections at potential funding organizations.

Once a Program Manager is identified, that staff member can act as the lead for donor engagement and cultivation. However, it is important to identify the team roles and responsibilities to identify opportunities for leveraging those skills and connections in the cultivation process. One way to maintain this effort is to reach out to funders on a regular basis (i.e. bi-monthly) via email to provide project updates. This prospect cultivation list is also located in the *Funding Sources* Excel spreadsheet project management tool and most likely will be the most actively managed of the Excel workbook tools.

Solicitation

The timeline for grant funding cycles for prioritized foundations is represented in the following table. A number of organizations invite letters of interest and applications in multiple windows throughout the year. Solicitations differ in their level of involvement and specific requirements. The average solicitation takes between 6-12 months' time from initial outreach to accessing the funding. including such steps as: requests for proposals (RFPs), letters of intent (LOI), full applications, site visits, and staff/board decisions.

In terms of making the ask, Sylvia Barry, VP of Resource Development of United Way of Lane County, recommends:

- Lead with vision: ensure donors understand the big picture and possibilities of your request.
- Make your case: explain in detail how you will conduct this work and the strategies and elements behind it.
- Make the ask: "we would like you to consider supporting this effort" and then wait for a response.
- Follow up: send a thank you and summarize the conversation and ask for their thoughts/comments.

It is the intent of the Oregon Solutions project work that the *Mitigation Plan* will contain many of the elements that will be requested in a funding application. To limit the administrative time and costs, we recommend starting with the mitigation plan document or a comparable grant application that has already been submitted.

Table 4 on page 11 shows the calendar for 2018 broken into four quarters and the grant funding timelines required by each organization. Note: many organizations have multiple submission periods.

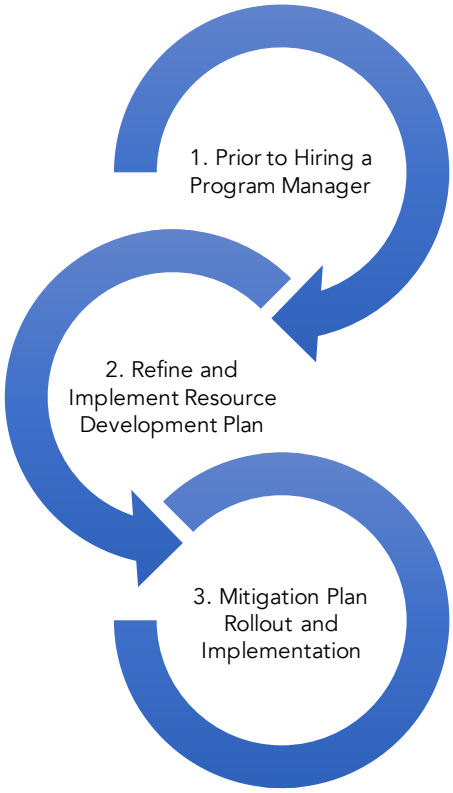
Stewardship and Recognition of Funders

It is important to identify the opportunities to acknowledge the efforts of funders by direct appreciation and involvement in naming or milestone events or through communication (project updates, thank-you cards, etc.).

- **Short-term:** Fund the program manager position that can be the interface and serve as a project manager to continue to raise funding and implement the project elements as further funding becomes available.
- **Long-term:** Completely fund the proposed project elements for three years and build the foundation for sustaining the project components that require ongoing effort (e.g., community firewood program).

Roadmap for Project Management and Staffing

The Program Manager role is most likely to carry out multiple project types (funding development and project implementation) but based on the individual's skillsets, this work might be conducted by a number of different individuals and organizations. For instance, LCOG, University of Oregon's Nonprofit Management program, or the Resource Assistance for Rural Environments (RARE) program could provide assistance in resource development and grant writing. HACSA, Enhabit or some other organization with specific expertise could provide much of the project implementation.



It is difficult to predict at the outset the timing and quantity of funding, therefore, while the Program Manager will initially be focused on resource development as the major early purpose of their job, this will likely evolve into more of a project management role if larger contributions and funding sources arrive within the first 6-12 months in 2018. Therefore, it is important to recognize that the following tasks in sections 2 and 3 below be considered in parallel if funding lands earlier in the process.

1. Before Funding and Hiring Program Manager (Dec 2017 - March 2018)
1. Development of Program Manager job description
2. Complete DEQ RFP proposal to use most of funding for Program Manager
3. Completion of 3 to 4 grants between January to March
2. Refine and Implement Resource Development Plan via Program Manager (March 2018 - April 2019)
1. City of Oakridge will host Program Manager and provide office space, internet and phone logistics
2. Program Manager duties
• Develop grant applications (7-10 grants per year) and receive input and review from stakeholder partners
• Track grant deadlines and funding source cultivation via Excel spreadsheet management tool
• Schedule and plan individual donor outreach and events
• Cultivate donors for program funding
3. For funding applications determine if City of Oakridge can apply or if pass through entity is required. If so SWFC can act as sponsored 501(c) 3 organization with Cascade Pacific as fiscal sponsor; SWFC can then lend that staff member to the City of Oakridge

Specifics for Step 2: Refine and Implement Resource Development Plan via Program Manager

1. Track grant deadlines and funding source cultivation via Excel spreadsheet management tool
    - Track, modify and log in "Fundraising Timeline" in Excel spreadsheet to prioritize grant applications. For example, Meyer Memorial Trust, Clif Bar, and Patagonia each have grant deadlines between April to June 2018
2. Develop grant applications (7-10 grants per year) and receive input and review from stakeholder partners
    - Coordinate with City of Oakridge, SWFC or other stakeholders to develop grant application, letters of support and review process
    - Leverage assistance from LCOG for grant applications and review
3. Schedule and plan individual donor outreach and events
    - Identify and prioritize individual donor opportunities from potential opportunities outlined in this document and *Funding Sources* Excel spreadsheet
    - Plan and execute individual donor outreach and medium for doing so (alumni event, dinner, mailer, Facebook or GoFundMe fundraiser, mountain bike event, etc.
4. Cultivate donors for program funding
    - Coordinate with Oakridge Mitigation Plan stakeholders (e.g., Sen. Floyd Prozanski) to communicate and coordinate calls and meetings with funding prospects. Use the "*Prospect Cultivation*" page to identify funding bodies and track progress and efforts.

Appendix

The following tables are part of the *Funding Sources* Excel spreadsheet which serves as a project management tool for resource development. Additional tabs and worksheets are included in this tool that serve to guide and track the resource development process.

TABLE 1: PRIORITIZED LIST BY FUNDING TYPE

Individual Donors	Type of Funding	Ductless Heat Pump	Woodstove	Weatherization	Community Firewood	Utility Bill Assistance	Compliance	Management
Solicitation appeals/letters to alumni								
Recreation funding (Travel Oregon, Cycle Oregon, MTB Oregon)								
GoFundMe, Kickstarter or social media fundraising effort								
Dinner or fundraiser events (5k run, mountain bike event)								

Public Funding	Type of Funding	Ductless Heat Pump	Woodstove	Weatherization	Community Firewood	Utility Bill Assistance	Compliance	Management
Economic Development Authority (EDA)	Grant							
Lane County Housing Authority (HACSA)	Grant	■	■	■				
Lane County	Grant	■	■	■	■		■	■
Lane County Home Energy Assistance Program (LIHEAP)	Grant					■		
Lane Regional Air Protection Agency (LRAPA)	Grant				■		■	
Oregon Department of Energy (ODOE)	Loan	■	■	■				
Oregon Department of Environmental Quality (DEQ)	Grant						■	
Oregon Housing and Community Services (OHCS)	Payments			■		■		
U.S. Department of Agriculture (USDA)	Grant and loan							
U.S. Department of Energy (DOE)	Grant and loan			■				
U.S. Department of Health & Human Services (HHS)	Grant	funds not currently available, targeted to child services						
U.S. Housing and Urban Development (HUD)	Grant and loan	■		■				
U.S. Environmental Protection Agency (EPA)	Grant	funds focused on communities that are in nonattainment						
U.S. Forest Service	Grant				■			

Private Funding	Type of Funding	Ductless Heat Pump	Woodstove	Weatherization	Community Firewood	Utility Bill Assistance	Compliance	Management
Banner Bank	Loan	■		■				
Cycle Oregon	Grant	■	■	■	■			
First Tech	Loan	■		■				
Hearth, Patio and Barbecue Association (HPBA)	Industry discount		■					
Lane Electric	Credits	■		■		■		
Roseburg	Grant				■			
Seneca	Grant				■			
Union Pacific	Grant				■			

Foundation Grant Funding	Type of Funding	Ductless Heat Pump	Woodstove	Weatherization	Community Firewood	Utility Bill Assistance	Compliance	Management
Ford Family Foundation	Grant	■	■	■	■		■	■
Meyer Memorial Trust	Grant	■	■	■	■		■	■
Oregon Community Foundation	Grant	■	■	■	■		■	■
Reser's Foundation	Grant				■			
Travel Oregon	Grant	■	■	■				

Municipal Funding	Type of Funding	Ductless Heat Pump	Woodstove	Weatherization	Community Firewood	Utility Bill Assistance	Compliance	Management
Municipal funding (e.g., local sales tax)								
County-wide assessment for county funds								

TABLE 2: PRIORITIZATION OF GRANT FUNDING ORGANIZATIONS

A	1st prioirity
B	2nd priority
C	3rd priority

Priority	Grantmaker Name	Board of Directors	State	Funding Interest	City, State	Total Assets	Annual Giving	Funding Cycle	Website
A	Arthur R. Dubs Foundation	Michele Pillon (Pres.), Reggie Jones (Sec), David Hyatt (Treas)	Oregon	Health, Environment	Medford, OR	$19,856,552	$511,333	January to April	http://www.ardubsfoundation.org/grant-guidelines/
A	Autzen Foundation	Wendy Ulman (Pres), Christina Grady (Treas), Robert Patton (Dir), Thomas Autzen (Dir), Phillip Patton (Dir)	Oregon	Health, Environment	Portland, OR	$26,500,764	$1,330,462	Mar 15th, Aug 1st, Nov 1st	https://www.autzenfoundation.org/
C	Barbara Emily Knudson Foundation	Emilee Provost (ED), Richard McGinty (Treas), Steve Blowers (Dir), Patrick Melius (Dir), Sharon Smith (Dir)	Oregon	Education, health, and social service programs	Portland, OR	$4,717,799	$161,355	no unsolicited proposals	http://goswpartners.wixsite.com/barbaraemilyknudson
A	Bill Healy Foundation	Cameron Healy (Chair), Christine Hart (Dir), Diane Hall (ED), Tim Healy (Dir), Laney Patrick (Dir), Marc Cramer (Dir), Susan Snow (Dir), Kathleen Healy (Dir)	Oregon	Environment, child wellbeing	Portland, OR	$29,431,007	$1,048,654	December	http://www.billhealyfoundation.org/granting2013.html
A	Catholic Community Services of Lane County, Inc.		Oregon	Utility bill assistance	Springfield, OR	$1,906,640	$2,417,415		http://www.ccslc.org
A	Chambers Family Foundation	Scott Chambers (Trustee), Silva Chambers (Trustee)		education, medical, health, and human needs	Eugene, OR			March and September	http://chambersfamilyfoundation.com/submissions
C	Clark Foundation		Oregon	Environment	Beaverton, OR	$27,803,937	$1,455,150	need to contact	http://clarkfoundationpdx.org/index.html
A	Clif Bar	Kathleen Crawford (Pres), Gary Erickson (Sec/Treas), Thao Pham (VP)		Health, Environment	California			February, May, October	http://clifbarfamilyfoundation.org/grants-programs/small-
A	Collins Companies Foundation	Cherida Smith (Pres/Dir), Eric Schooler (Dir), Terry Collins (Dir), Truman Collins (Dir), Lee Collins (Dir), Nancy Helseth (Dir), Timoth Bishop (Treas)	Oregon	Environmental Health, Environment	Wilsonville, OR	$3,899,097	$229,227	February, April, June, August, December	http://www.collinsfoundation.org/submission-guidelines
C	Coon Family Foundation		Oregon	Environment	Portland, OR	$760,189	$186,000	no unsolicited proposals	http://coonfamilyfoundation.org
A	Columbia Sportswear			Environment	Portland, OR				https://www.columbia.com/About-Us_Community.html
A	Ford Family Foundation	Carrie Thompson (Dir), Anne Kubisch (Pres), Knute Buehler (Dir), Karla Chambers (Dir), Allyn Fod (Dir), Toby Luther (Dir), Josepha Robertson (Dir)	Oregon	Health, Environmental Health	Roseburg, OR	$817,241,279	$33,248,795	open funding does not currently apply; check list later	http://www.tfff.org/
C	Giustina Foundation	Natalie Giustina Newlove (Pres), Irene Giustina Goldbeck (Sec), Mark Giustina (VP), Jacqueline Giustina (Dir), Kate Hudson (Dir)	Oregon	Health	Eugene, OR	$6,682,384	$345,000		no website
A	Goodwill Industries of the Columbia W	Michael Miller (Pres), Richard Knox (Finance), Catherine Hannam (Sales/Marketing)	Oregon	Environmental Health	Portland, OR	$254,615,499	$10,000,000		https://meetgoodwill.org/
B	Jackson Foundation		Oregon	Health	Portland, OR	$14,044,273	$567,200	March, June, September, December	http://www.thejacksonfoundation.com/js/rules
C	Jay and Diane Zidell Charitable Found	Jay Zidell (Dir), Diane Zidell (Dir), Larry Richards (Dir)	Oregon	Health	Portland, OR	$19,662,410	$1,042,330		no website
C	Juan Young Trust	Antoinette Arenz (Trustee), Scott Klusmann (Trustee)	Oregon	Health	Portland, OR	$14,160,402	$1,595,000	December, March, June, September	http://goswpartners.wixsite.com/juanyoungtrust
A	Jubitz Family Foundation	M. Albin Jubitz	Oregon	Natural Resources, Environmental Health, Envi	Portland, OR	$12,102,988	$681,665	March and September	http://www.jubitz.org/
C	Kaiser Permanente of the Northwest C	Andrew McCulloch (Pres)	Oregon	Public Health	Portland, OR	N/A	N/A		https://share.kaiserpermanente.org/article/northwest-requ
A	Knight Foundation	Phil Knight (Pres), Penelope Knight (VP), Lisa McKillips (Sec), Travis Knight (Sec)	Oregon	Public Health, Health	Beaverton, OR	$455,852,814	$4,976,868		
C	Lamb Foundation	Barbara Lamb (Pres), Gayle Horton (VP), Kari Anne McDonald (Sec), Carl Lamb (Treas), Kristin Bailey (Dir), Brenda Lamb (Dir)	Oregon	Environment	Lake Oswego, OR	$6,249,410	$248,100	no unsolicited proposals	
B	Lazar Foundation	William Lazar (Pres), Jeanne Morency (Sec), Michael Morency (Trustee), Sybil Ackerman (ED), Jack Lazar (Trustee)	Oregon	Natural Resources, Environmental Health	Portland, OR	$21,049,049	$875,189		http://fdnweb.org/lazar/application/

TABLE 3: PROSPECT CULTIVATION

Note: Tier A-C identifies the priority of that funding organization

Prospect	Tier (A-C)	Team Member	Stage	Next Steps
Current Relationships				
Oregon Community Foundation	A	Mayor Coey, Sen. Prozanski	Cultivation-Solicitation	
Trillium CCO	A	Dr. Luedtke, Mayor Coey, Sen. Prozanski	Cultivation-Solicitation	Setting up a meeting with Mayor + Senator
Meyer Memorial Trust	A	Good Company	Cultivation-Solicitation	April application
Reser Family Foundation	A	Sen. Prozanski	Cultivation-Solicitation	Consider another request
Ford Family Foundation	A	City of Oakridge	Cultivation-Solicitation	Contact Economic and Health 541-957-5574
Autzen Foundation	A	Sen. Prozanski, Good Company	Cultivation-Solicitation	Need fiscal sponsor before apply
Relationships Identified				
Chambers Family Foundation	A	Sen. Prozanski	ID - Cultivation	
Clif Bar	A	Sen. Prozanski	ID - Cultivation	
Collins Companies Foundation	A	Sen. Prozanski	ID - Cultivation	
Goodwill Industries	A	Sen. Prozanski	ID - Cultivation	
Bill Healy Foundation	A	Good Company	ID - Cultivation	
Lazar Foundation	B	Sen. Prozanski, Good Company	ID - Cultivation	
Northwest Foundation Fund	C	Good Company	ID - Cultivation	
Pacificsource Foundation	B	Good Company	ID - Cultivation	
Knight Foundation	B	Sen. Prozanski	ID - Cultivation	
Lazar Foundation	B	Sen. Prozanski	ID - Cultivation	
Louisiana-Pacific Foundation	C	Sen. Prozanski	ID - Cultivation	
Giustina Foundation	C	Sen. Prozanski	ID - Cultivation	
NIKE Foundation	B	Sen. Prozanski	ID - Cultivation	
Northwest Health Foundation Fund	C	Sen. Prozanski	ID - Cultivation	
PacificSource Foundation	B	Sen. Prozanski	ID - Cultivation	
Spirit Mountain Community Fund	A	Sen. Prozanski	ID - Cultivation	
Tykeson Family Charitable Trust	A	Sen. Prozanski	ID - Cultivation	

TABLE 4: FUNDRAISING TIMELINE

Note: This list represents a selection of the prioritized grantmaking funding groups. Several foundations have multiple application dates and that is noted by "mutiple app dates" in the table

2018	2018
Jan-Mar	**April-June**
Oregon Community Foundation	Meyer Memorial Trust
PacificSource Foundation	Clif Bar (multiple app dates)
Arthur R. Dubs Foundation	Patagonia
Chambers Family Foundation (multiple app dates)	Rodger A. and Kate Graef Family Foundation
Collins Companies Foundation	Rose E. Tucker Charitable Trust
Jackson Foundation (multiple app dates)	Stimson-Miller Foundation
Juan Young Trust (multiple app dates)	United Way of the Columbia-Willamette
Maybelle Clark Macdonald Fund (multiple app dates)	
Mentor Graphics Foundation	
Reser Family Foundation (multiple app dates)	
Spirit Mountain Community Fund (multiple app dates)	
Wheeler Foundation (multiple app dates)	

2018	2018
July-Sept	**Oct-Dec**
Autzen Foundation	Bill Healy Foundation
Ford Family Foundation (check to see if grant available)	
Jubitz Family Foundation	