

West Bend After Action Review

Start of Block: Contact Info

Q1.1 Welcome to the After-Action Review (AAR) survey for the West Bend Prescribed Fire Pilot project, administered by the University of Oregon Smoke Center.

- **What is an AAR?** Essentially, an AAR serves as an opportunity to understand: 1) what went well; 2) what was challenging; and 3) what could be improved for the future, both for prescribed burning in West Bend and future related projects. To see an example of what an AAR document looks like, refer to the Oakridge AAR linked here.
- **Purpose:** This survey serves as a place for you to reflect on lessons learned during the West Bend Pilot, from the perspective of your agency role and position during both the planning and implementation of this project. The goal of this AAR is to foster shared learning and inform decision-making for future related events and smoke events and communication. We hope to hear from multiple people from each agency/organization involved, so please answer from your own perspective. The AAR meets Incident Action Plan (IAP) Objective #6 to develop and utilize a process to document lessons learned, barriers encountered, potential solutions to remove or reduce barriers, and personnel costs of primary West Bend Planning Pilot Incident Management Team.
- **We recognize we don't have the whole picture of results yet** (e.g. community survey; Purple Air sensors/air quality analyses; and analyses of predictive smoke forecast modeling), so please reflect on the process to date. **We will work with the broader project team to add in an addendum (format TBD) reflecting on the research results once those are complete and shared.**

Instructions:

1. On the first page of the survey, **you will be able to select an option to take the survey online or through a meeting** directly with our team.
2. Please complete this survey from the **perspective of your role/position and agency and how you participated** in the process.
3. **For reference, we have created a summary document (see AAR Version 1 here)** of what we have gathered to date based on document review and meeting participation/observation.

Note: This is a working document, intended to show some notes of the discussion to date, but it is not comprehensive.

A Note on Confidentiality: *We will not include names in any of our deliverables, nor will we share who completed the survey. All findings will be reported in the aggregate. However, given the relatively small number of people and organizations that participated in the pilot, responses are not necessarily fully anonymous. Please contact Heidi Huber-Stearns (hhuber@uoregon.edu) if you have questions about this.*

Q1.2 Your Name. **We are asking for your name for contact purposes only, will not be included in survey results.*

Q1.3 Your Email

Q1.4 May we contact you by phone if we have additional questions?

Yes (1)

No (2)

Display This Question:

If May we contact you by phone if we have additional questions? = Yes

Q1.5 Please enter the BEST phone number to reach you at here.

Page Break

Q1.6 Your Position Title

Q1.7 Your Agency Name

Q1.8 Relationship to West Bend Pilot (Specifically, what your role was, not just your agency's general role.)

Q1.9 How do you prefer to provide input on this After Action Review (AAR) for the West Bend Pilot?

- I prefer to continue taking this survey.** (This will take you to the next page of the survey.) (2)
- I prefer to talk to someone over a Teams call with the Smoke Center team.** (This will take you to a Calendly poll to directly set up a time between now and July 11th to meet with us that works for you.) (1)
- I decline** (3)

Skip To: End of Survey If How do you prefer to provide input on this After Action Review (AAR) for the West Bend Pilot? = I decline

Page Break

End of Block: Contact Info

Start of Block: Consent Form

Display This Question:

If How do you prefer to provide input on this After Action Review (AAR) for the West Bend Pilot? = I prefer to continue taking this survey. (This will take you to the next page of the survey.)

Q2.1 Consent Form: We are asking you to participate in a survey as part of an after action review for a smoke event. The risks of participating in this evaluation are not expected to exceed the risks of daily life. The survey should take you 30 minutes to complete, depending on how involved you were in the West Bend Pilot planning and implementation process.

Confidentiality: Data will be stored on a password-protected, cloud-based file storage and an institutional file server accessible only to researchers named on the University of Oregon IRB protocol. We will not use your name or any information that could identify you in any of our research products.

If you have any questions at any point, please contact Heidi Huber-Stearns, Principal Investigator, at 541-346-0675 at the University of Oregon's Center for Wildfire Smoke Research Practice. You may also contact Research Compliance Services for questions about your rights as participants at ResearchCompliance@uoregon.edu | 541-346-2510.

Voluntary Consent: You are being asked to voluntarily participate in an evaluation. It is up to you whether you choose to participate or not. There will be no penalty or loss of benefits to which you are otherwise entitled if you choose not to participate or discontinue participation. By checking "yes," you agree to take this survey and that you are at least 18 years of age. Checking "no" will end survey.

- Yes, take me to the survey (1)
- No, end the survey (2)

Skip To: End of Survey If Consent Form We are asking you to participate in a survey as part of an after action review for a... = No, end the survey

End of Block: Consent Form

Start of Block: Start of Survey Questions - The 5 P's

Q3.1 West Bend Pilot as Vehicle for PNW Joint Statement of Intent: This After Action Review (AAR) is aligned with the initial themes and findings to the framework of the PNW Joint Statement of Intent to Cooperate on Prescribed Fire and Smoke Management. **The next 5 questions will ask you about how this project did in relation to:** Acting with urgency; Protecting public health, safety, and property; Identifying and overcoming the most limiting factors to achieving implementation of prescribed fire as a management tool at scale; Being

innovative and comprehensive in approach and best practices; and Trying new approaches, learning and adapting based on experience. *Some of these questions we ask may not apply to you at your level in the organization, so you can choose N/A (not applicable).*

Page Break

Q3.2 West Bend Pilot as Vehicle for PNW Joint Statement of Intent: Did this pilot project achieve the goal of “Acting with urgency”? This was defined as: “using all available authorities, and collaborating with existing and new partners, including entities from the philanthropic community, to increase the pace and scale of prescribed fire implementation while minimizing impacts to public health. Our agencies all have expertise and resources to contribute, and we are committed to leveraging those resources in new ways.”

YES, this pilot project met the goal of acting with urgency. Briefly describe how and share any examples, if possible. (1)

NO, this pilot project did not seem to meet the goal of acting with urgency. Briefly describe how and share any examples, if possible. (2)

Neither agree or disagree. Please briefly explain your answer. (3)

I don't know. Please briefly explain your answer. (4)

N/A (5)

Page Break

Q3.3 West Bend Pilot as Vehicle for PNW Joint Statement of Intent: How did this pilot project do overall in achieving the goal of: "Protecting public health, safety, and property"? Did this approach protect public health? *This was defined as: "Work with partners and local communities to ensure meaningful community engagement, strengthened collaborative planning, support in pursuing resources, and increased and transparent health risk communication commensurate with the increased scale of prescribed fire near their community. This means communication before, during and after prescribed burns, using methods to reach all potentially affected people about prescribed fire events and how to protect themselves from smoke and interventions to reduce exposure to smoke. It also means ensuring all of these preparedness efforts to protect health are addressed in a specific time and place before committing to each decision to go forward with prescribed fire."*

YES, this pilot project met the goal of protecting public health, safety, and property. Briefly describe how and share any examples, if possible. (1)

NO, this pilot project did not seem to meet the goal of protecting public health, safety, and property. Briefly describe how and share any examples, if possible. (2)

Neither agree or disagree. Please briefly explain your answer. (3)

I don't know. Please briefly explain your answer. (4)

N/A (5)

Page Break

Q3.4 West Bend Pilot as Vehicle for PNW Joint Statement of Intent: How did this pilot project do overall in achieving the goal of: "Identifying and overcoming the most limiting factors to achieving implementation of prescribed fire as a management tool at scale"?

Were limiting factors to implementing prescribed fire identified? This was defined as:

“Opportunities include working together to identify and resolve regulatory and operational challenges, encouraging an atmosphere of learning and creativity, shared problem solving, considering new business processes, looking for opportunities to streamline regulatory frameworks, and sharing resources to address planning, implementation, data gathering, reporting, and monitoring needs.”

YES, this pilot project met the goal of identifying and overcoming the most limiting factors to achieving implementation of prescribed fire as a management tool at scale. Briefly describe how and share any examples, if possible. (1)

NO, this pilot project did not seem to meet the goal of identifying and overcoming the most limiting factors to achieving implementation of prescribed fire as a management tool at scale. Briefly describe how and share any examples, if possible. (2)

Neither agree or disagree. Please briefly explain your answer. (3)

I don't know. Please briefly explain your answer. (4)

N/A (5)

Page Break

Q3.5 West Bend Pilot as Vehicle for PNW Joint Statement of Intent: How did this pilot project do overall in achieving the goal of: "Being innovative and comprehensive in approach and best practices"? Was this pilot innovative and comprehensive in its approach and implementation? This was defined as: "Develop and implement new strategies to minimize smoke impacts to communities. Be flexible, adaptable, and look for opportunities to coordinate schedules and projects. In planning and preparing for prescribed burns, use the best available information and modeling to predict smoke impacts, identify burn windows consistent with resource objectives, and minimize impacts on public health."

YES, this pilot project met the goal of being innovative and comprehensive in approach and best practices. Briefly describe how and share any examples, if possible. (1)

NO, this pilot project did not seem to meet the goal of being innovative and comprehensive in approach and best practices. Briefly describe how and share any examples, if possible. (2) _____

Neither agree or disagree. Please briefly explain your answer. (3)

I don't know. Please briefly explain your answer. (4)

N/A (5)

Page Break _____

Q3.6 West Bend Pilot as Vehicle for PNW Joint Statement of Intent: How did this pilot project do overall in achieving the goal of: "Trying new approaches, learning, and adapting based on experience"? Was this pilot adapted over the course of the project? Were new approaches used? This was defined as: "Not all new strategies will be immediately successful, but we must build on our current knowledge to undertake the challenge before us. Develop appropriate monitoring strategies that track not only the smoke impacts and efficacy of prescribed fire treatments, but also the planning processes developed to increase the pace and scale of this work."

YES, this pilot project met the goal of trying new approaches, learning, and adapting based on experience. Briefly describe how and share any examples, if possible. (1)

NO, this pilot project did not seem to meet the goal of trying new approaches, learning, and adapting based on experience. Briefly describe how and share any examples, if possible. (2)

Neither agree or disagree. Please briefly explain your answer. (3)

I don't know. Please briefly explain your answer. (4)

N/A (5)

End of Block: Start of Survey Questions - The 5 P's

Start of Block: Capacity Needs and Resources

Q4.1 Capacity Needs and Resources: In this section, you will answer questions about the level of capacity you feel is needed to engage in similar work in the future. Please answer from the perspective of your position within your agency's role in the West Bend Pilot. Please list and rank the **top 3 to 5 factors that LIMITED your ability** (in your role) to engage in this pilot project.

_____ Factor (1)

_____ Factor (2)

_____ Factor (3)

_____ Factor (4)

_____ Factor (5)

Q4.2 Please list and rank the **top 3 to 5 factors that ENABLED your ability** (in your role) to engage in this pilot project.

- _____ Factor (1)
 - _____ Factor (2)
 - _____ Factor (3)
 - _____ Factor (4)
 - _____ Factor (5)
-

Q4.3 **Capacity Needs and Resources:** My engagement in this pilot project felt like a **manageable workload** for my position within my existing program of work.

- AGREE. Please explain why. (1)

 - DISAGREE. Please explain why not. (2)

 - UNSURE OR I DON'T KNOW. Please explain. (3)

 - NEITHER AGREE OR DISAGREE. Please explain (4)

-

Q4.4 My agency/organization can **sustain this level of effort** (e.g., personnel, resources, budget) **to do this again next year** (e.g., for one project this size each year).

- AGREE. Please explain why. (1)

 - DISAGREE. Please explain why not. Would a different time frame be more manageable? (2) _____
 - UNSURE OR I DON'T KNOW. Please explain. Would a different time frame be more manageable? (3) _____
 - NEITHER AGREE OR DISAGREE. Please explain. (4)

-

Q4.5 My agency/organization **received the level of support it needed.**

AGREE. Please explain why. (1)

DISAGREE. Please explain why not. (2)

UNSURE OR I DON'T KNOW. Please explain. (3)

NEITHER AGREE OR DISAGREE. Please explain. (4)

Page Break

Q4.6 **Capacity Needs and Resources**

In the process of engaging in this work in your agency position, were there **specific pieces of information** you wished you were aware of, **that would have improved your workload / efficiency / ability to learn or be effective?**

AGREE. Please explain why. (1)

DISAGREE. Please explain why not. (2)

UNSURE OR I DON'T KNOW. Please explain. (3)

NEITHER AGREE OR DISAGREE. Please explain. (4)

Q4.7 Reflecting on your experiences and processes, what would have helped, or could help, for someone engaging in similar work in your position in the future?

End of Block: Capacity Needs and Resources

Start of Block: Communication, Coordination, & Organizational Changes

Q5.1 Communication, Coordination and Organizational Changes:

In this section, you will answer questions about communication and coordination, as well as changes your organization engaged in to meet these needs. Please answer from the perspective of your position within your agency's role in the West Bend pilot.

How did your agency change in response to the needs of this pilot project? *Please include any tracking you have of your time spent on specific tasks or related details to help us quantify the investment of time and resources in this project.*

Contact me for more details. (1)

Write-In: (2) _____

Q5.2 How did this pilot project change your agency's structure and communications internally? Did this change before, during, or after the burn?

YES. Please describe how. (4)

NO. Please describe how. (5)

I don't know (6)

Q5.3 How did this pilot project change your agency's structure and communications with external partners? Did this change before, during, or after the burn?

YES. Please describe how. (4)

NO. Please describe how. (5)

I don't know (6)

Q5.4 What do you think needs to change, or what opportunities do you see, to continue to meet goals?

Q5.5 Communication, Coordination and Organizational Changes

The West Bend Pilot Project began with the November 2023 Tabletop Exercise in Bend, Oregon. Were you involved in that meeting?

Yes (1)

No (2)

Display This Question:

If Communication, Coordination and Organizational Changes The West Bend Pilot Project began with the... = Yes

Q5.6 Do you think **early lessons from the November 2023 Bend Tabletop Exercise were **carried forward?** If so, how?**

Display This Question:

If Communication, Coordination and Organizational Changes The West Bend Pilot Project began with the... = Yes

Q5.7 Do you think **relationships established at the November 2023 Bend Tabletop Exercise **influenced the pilot?** If so, how?**

Page Break

Q5.8 Communication, Coordination and Organizational Changes

This process has allowed me/my organization to know who to connect with, how to better work through **air quality related challenges**.

AGREE. Please explain why. (1)

DISAGREE. Please explain why not. (2)

UNSURE OR I DON'T KNOW. Please explain. (3)

NEITHER AGREE OR DISAGREE. Please explain. (4)

Q5.9 This process has allowed me/my organization to know who to connect with, how to better work through **forest land management-related challenges**.

AGREE. Please explain why. (1)

DISAGREE. If selected, please explain why or why not. (2)

UNSURE OR I DON'T KNOW. Please explain. (3)

NEITHER AGREE OR DISAGREE. Please explain. (4)

Q5.10 This pilot project **changed how we will work with other organizations** moving forward.

AGREE. Please explain why. (1)

DISAGREE. Please explain why not. (2)

UNSURE OR I DON'T KNOW. Please explain. (3)

NEITHER AGREE OR DISAGREE. Please explain. (4)

Page Break

Q5.11 Communication, Coordination and Organizational Changes

In your role, did you use any **existing or newly developed communication plans** for the pilot project?

Yes (1)

No (2)

Display This Question:

If Communication, Coordination and Organizational Changes In your role, did you use any existing or... = Yes

Q5.12 Which plans did you use? *(select all that apply)*

- Deschutes National Forest Prescribed Burn Communication Plan (1)
 - Deschutes County Public Health Action Plan (2)
 - Bend Smoke Community Response Plan (3)
 - Joint Communications Plan for the PNW Region's Statement of Intent to Cooperate (4)
 - Joint Communications Plan for the Leadership Group (5)
 - Other (please write in): (6)
-

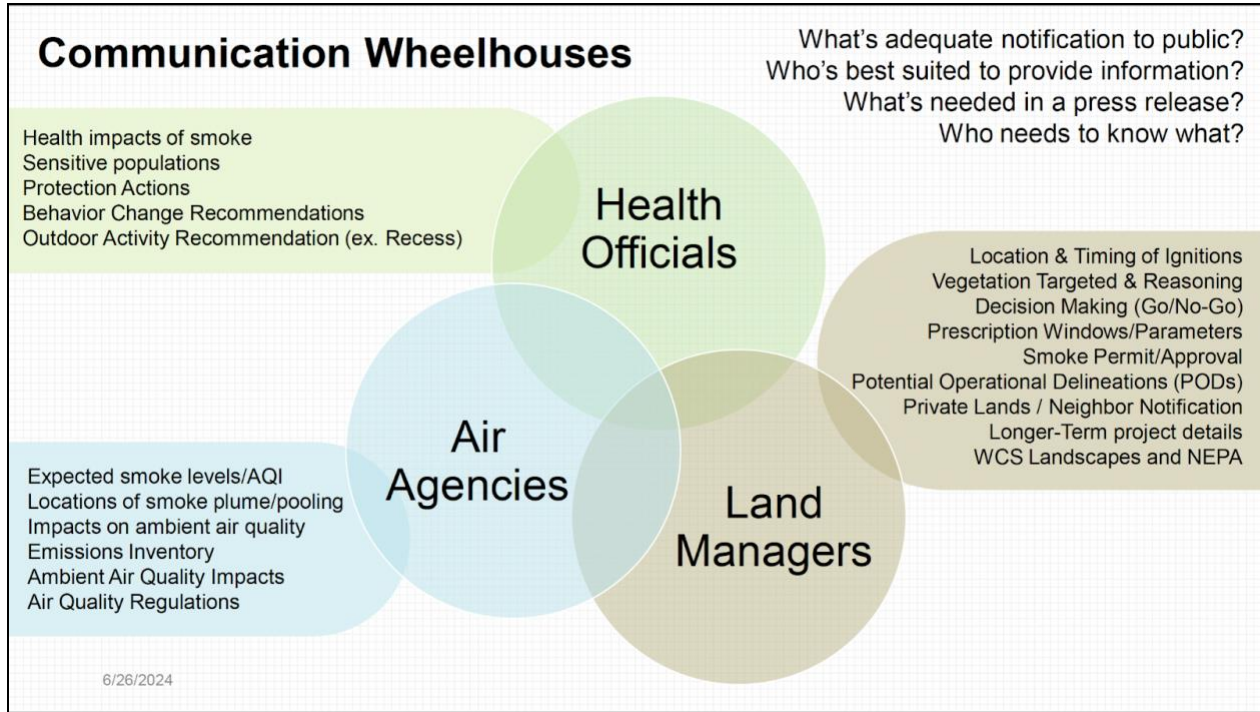
Display This Question:

If If Which plans did you use? (select all that apply) q://QID66/SelectedChoicesCount Is Greater Than 0

Q5.13 How did you use these plans? Is there anything specific you referenced the plans for?

Q5.14 Communication, Coordination and Organizational Changes

During this process, a “communication wheelhouses” figure was shared by Dr. Amber Ortega (U.S. Forest Service Regional Smoke Coordinator and Air Resource Advisor) to show flow and movement to demonstrate how agencies work together / align messaging.



Q5.15 If this figure was applicable to your role, please share your reflections on the figure. **What was particularly useful** for you?

Q5.16 From your perspective of your agency role and your position in the pilot, **what could be improved** in this figure?

Q5.17 **Communication, Coordination and Organizational Changes** We would like to understand you and your organization's **experience being part of an Incident Management**

Team (IMT) structure for this pilot project. Is the Incident Management Team structure something your organization is familiar with?

- Yes (1)
 - No (2)
 - I don't know (3)
 - Other (write-in): (4) _____
-

Q5.18 How did this Incident Management Team (IMT) structure work for your position and your organization?

- What worked well? (1)

 - What was challenging? (2)

 - What could be done differently? (3)

-

Page Break _____

Q5.19 Communication, Coordination and Organizational Changes

Do you have ideas on how the **information from this pilot** project could be used for training:

- Emergency management and preparedness personnel, and/or other risk communicators? (1) _____
- Land management decision makers or prescribed fire burn planners and burn bosses / implementers? (2)

End of Block: Communication, Coordination, & Organizational Changes

Start of Block: Public Feedback

Q6.1 Public Feedback

Did you/your organization **receive comments from the public about the burn** (or other aspects of this project) during implementation?

- Yes (1)
- No (2)
- I don't know (3)
- N/A (4)

Page Break

Display This Question:
If Public Feedback Did you/your organization receive comments from the public about the burn (or oth... = Yes

Q6.2 Can you provide documentation, quantification or related information about the comments you received? *You can contact us directly if that's easier than putting it in the survey. We are interested in hearing who contacted your organization, what their comments or questions were about, and what, if any, action was taken in response.*

- Please contact me** for the details of this (1)
- Write-in: (2) _____

End of Block: Public Feedback

Start of Block: Challenges & Opportunities

Q7.1 Challenges and Opportunities: What challenges did you or your organization experience in the **planning** for the West Bend Pilot?

Q7.2 What challenges did you or your organization experience in the **implementation** for the West Bend Pilot?

Q7.3 What could have been improved to make you/your organization's role **more effective**?

Q7.4 Do you have anything additional you would like to share about if and how this pilot project could have been improved, or could be improved in the future for other landscapes?

Q7.5 Challenges and Opportunities: We are interested in understanding **who (what individuals or groups) should have been part of this project** that weren't.

Who was missing on the **Incident Management Team** (IMT)? (1)

Who was missing from **outreach efforts** (who/what groups should have been engaged)? (2)

Who was missing from **efforts to provide clean air access**? (3)

Q7.6 Was anyone else missing?

End of Block: Challenges & Opportunities

Start of Block: Defining Success and Outcomes

Q8.1 Defining Success and Outcomes

We would like to ask you about what measures you think we should be using to judge the success of this project and what successful **and** unsuccessful outcomes you have seen. We recognize that not all aspects of this project are complete-as the research on community perspectives and air quality tracking is not finalized. There will be an opportunity to reflect on

these questions again, in the context of the research results (as an addendum to this report), so for now, please answer these questions based on your experience with this process to date.

What do you think were **successful outcomes** from this process? Please share any specific measures that you or your organization are noting as measures of success from this process (e.g. number of positive feedback/comments from the public, new sign-ups for alerts, etc.)?

Q8.2 What do you think were **unsuccessful outcomes** from this process?

Q8.3 What **metrics** do you think should be used to judge the success of this project?

Q8.4 Do you have anything additional you would like to share about if and how this pilot project was or was not a success?

End of Block: Defining Success and Outcomes

Start of Block: Research

Q9.1 Research

The West Bend Pilot included a research component focusing on multiple aspects: a community survey, sensors to measure indoor air quality / assess smoke impacts from prescribed burns vs

wildfire smoke, and an AAR. Which of these research components could be **useful to conduct in the future**? (select all that apply):

- Community survey (knowledge and perception of prescribed fire; info sources used; protective actions taken; and demographics) (1)
 - Measuring **indoor** air quality with sensor data (2)
 - Measuring **outdoor** air quality with sensor data (3)
 - After action review (4)
 - Predictive smoke forecast modeling (5)
 - Other research (write-in): (6)
-

Q9.2 Please add any comments you have related to your response to the previous question.

Q9.3 Do you think that research should be a core component of these pilot projects?

YES. Please explain why. (1)

NO. Please explain why not. (2)

NEUTRAL. Please explain. (3)

I DON'T KNOW. Please explain. (4)

End of Block: Research

Start of Block: Final Reflections

Q10.1 Final Reflections

What lessons (or takeaways) from your participation in this project might continue to be **useful for future work in Bend** on fire and air quality?

Q10.2 What lessons (or takeaways) do you think are more universally applicable and **potentially useful to other regions or places doing similar work**?

Q10.3 Final Reflections

Please note your response to the following questions about if the pilot project achieved certain objectives.

	Agree (1)	Disagree (2)	Neutral (3)	I don't know (4)
<u>Collaboration across public health and land management agencies</u> was better than previously done in prescribed burn projects. (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<u>Public health</u> objectives were achieved. (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<u>Land management</u> objectives were achieved. (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q10.4 Do you believe this pilot project was an effective way to **build collaboration** on wildfire risk reduction by implementing more Rx burning AND more public health protections?

YES. Please explain why. (1)

NO. Please explain why not. (2)

NEUTRAL. Please explain. (3)

I DON'T KNOW. Please explain. (4)

Page Break

Q10.5 Final Reflections

Is this same approach **replicable** for your agency/agency role? Why or why not?

Q10.6 Is this same level of resource and other investment **sustainable** for your agency/agency role? Why or why not?

Q10.7 Do you believe this pilot project was an effective way to **prioritize local, state and federal resources** for wildfire risk reduction?

YES. Please explain why. (1)

NO. Please explain why not. (2)

NEUTRAL. Please explain. (3)

I DON'T KNOW. Please explain. (4)

Q10.8 We would like to know about the **key learning you/your organization did** in this process. Please consider these prompts and respond below.

Do you have **one main takeaway** about collaborating on a prescribed burn/public health project like this? (1) _____

Do you have **one main area of need that still needs to be addressed** to make these types of projects possible (or to sustain this work) in the future? (2)

Q10.9 Given what you know now about how this process went, what do you wish you would have known when you started this work? In other words, **what advice would you give your former self** if you could have at the beginning of this pilot project?

Q10.10 Are there any other questions we did not ask that you would like to see?

No (1)

Yes (2) _____

End of Block: Final Reflections
