



Wenatchee Workshop Report



October 16-17th, 2019
Wenatchee, Washington

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For more information about the CoMFRT Partnership, please visit:

<https://www.fs.usda.gov/rmrs/groups/comfrt>

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Executive Summary and High Level Recommendations

In October 2019, 30 wildfire practitioners from the North Central Washington region came together to engage with the preliminary results of research conducted by the Co-Management of Fire Risk Transmission Partnership (CoMFRT) Research team. The CoMFRT team have conducted a series of research projects since 2017 that seek to enhance our understanding of the challenges to, and opportunities to support, the co-management of wildfire risk across boundaries. This has involved research on parcel level property risks, conducted in close collaboration with Chelan County Fire District 1; case studies of local adaptation to wildfire in Winthrop, Twisp, Ponderosa, and Kittas; the wildfire risk management network; and cross-scalar governance challenges that slow wildfire risk mitigation in the North Central Washington region. The preliminary results presented by the research team served as a platform for a broader discussion about how to shape wildfire prevention and mitigation efforts in the region in order to better support local practitioners and develop a more holistic and integrated approach to the wildfire problem.

Ensuring adequate resourcing, capacity, and coordination for wildfire mitigation and prevention efforts is a pressing issue for wildfire practitioners in the North Central Washington Region. This challenge emerges from the complex nature of the problem, which transcends jurisdictional boundaries, and is shaped by how a community engages with, and understands the risks associated with living in a fire prone landscape. This is complicated by a diverse array of local, state, and federal policies, regulations, and mandates that govern how individuals and organizations undertake actions to mitigate wildfire risk.

In-depth discussion in the workshop focused on three areas: networks and coordinators to support more coordination between different groups in the region; the need to move beyond acres treated as a measure of progress in mitigation and prevention efforts; and a need to develop a more nuanced approach to understanding when communities are 'ripe' or 'ready' to receive investment to support their efforts to mitigate wildfire risk.

Workshop attendees agreed that wildfire risk already poses significant challenges for communities, and that the bulk of the costs associated with mitigation, preparedness, and recovery are borne at the local levels. They identified a 'coordination deficit' that is occurring within their system, characterized by an absence of processes and structures that enabled local, state, and federal actors to coordinate their efforts to address wildfire risk. In response to this concern, they highlighted the need to develop a more strategic and integrated approach to funding that balances investment in prevention and mitigation, with resources dedicated to response.

Workshop participants stressed that future investment should not simply be based on biophysical risk, but rather should be targeted at places that have some existing capacities that could be leveraged. Extant local capacities could include a broad suite of prevention and mitigation activities, including for example, parcel risk assessments, ingress/egress, shelter in place/safe zones, community assessments/plans, and/or agency staff dedicated to working with the community. Considering such capacities within metrics that determine wildfire risk, and/or to guide investments may shift priority

areas and therefore would require a broad and inclusive conversation with the diversity of actors and agencies engaged in wildfire prevention and mitigation, as well as the research communities who are working on outcome-based social and biophysical wildfire metrics.

Workshop participants identified a need for, and an opportunity to invest in, coordination capacities at a local scale. This investment, participants suggested, could reduce inefficiencies in the system; build trust within and among entities engaged in mitigation and prevention work; and ultimately, be used to foster a cultural change in the way that wildfire mitigation and prevention work is perceived and prioritized.

The following recommendations are a result of the co-production process that aimed to integrate research findings with local knowledge, experience, and expertise. These recommendations speak to the specific context of North Central Washington.

Coordination

- Coordination may enable resources to be leveraged strategically to create efficiencies instead of competition; however, coordination itself requires investment to connect otherwise disconnected parts of the wildfire risk management or governance network;
- Efficiencies in supporting coordination may be found through resourcing a diverse group of boundary spanning organizations and individuals - those who build connections in the network.
- The time and effort required to establish collaborative efforts is an investment that could pay off in the future. There is a need to track and measure how investments influence network and community capacity to live with and manage wildfire risk.
- While agency/legislative support for coordination is necessary, coordination should be grounded in the local conditions, drawing on place-based knowledge and existing local relationships to help design and carry out wildfire planning.
- Investing in coordination will require diversifying the revenue stream for collaborative adaptation efforts and ensuring the sustainability of planning efforts. Consider increasing mitigation investments to more closely match investments in response.

Coordinators

- A paid coordinator, with the appropriate training, professional development, local knowledge, and local relationships could provide critical support to implement adaptation strategies across communities. This coordinator should not be pulled into suppression-related duties.
- As it is unlikely that any single organization has the resources to support coordination functions, exploring opportunities to pool funding may be a pathway to support. Of note, [Washington State Wildland Fire Protection Strategic Plan](#) (see specifically the plan's strategy 1.3, p. 63) outlines the establishment of regional and local coordinating capacity. Such mechanisms could be leveraged to develop a pilot project and monitor the impact of this investment.
- Consider other models/resource domains where coordinators have supported cross boundary work - for example watersheds - to learn from those efforts.

- Design and implement a training program intended to empower coordinators with the skills, knowledge, and abilities to effectively coordinate fire mitigation activities across diverse sets of stakeholders.
- Consider supporting a project focused on placing coordinators in key locations and study related outcomes.

Metrics

- Move beyond acres treated as a metric to measure *progress* in wildfire mitigation and prevention. New metrics should incorporate factors related to a range of social, economic, values at risk, and community outcomes, in addition to commonly used biophysical metrics.
- Coordinators, in collaboration with broad representation of actors in the local wildfire management system, could identify and pilot scale-appropriate metrics that account for a variety of values at risk.
- A coordinator's service area could also be a metric. Example being the influence the coordinator has on area with high biophysical risk, and low capacity. We agreed that these areas might not be ripe, or ready for investment, but that should not exclude them from involvement with a regional coordinator.

Workshop overview, objectives, types of participants

This workshop brought together 30 wildfire practitioners engaged in one of the two CoMFRT study sites, the North Central Washington region to discuss the preliminary findings of research that had been conducted in the region by the CoMFRT project between 2017-2019. A graphic facilitator created visualizations of the meeting content throughout the meeting sessions. Invited participants were identified through the social network analysis conducted by the CoMFRT team, selecting individuals who were central to the wildfire network in North Central Washington. The meeting included representatives from local fire districts, local fire adapted communities organizations, Washington State Department of Natural Resources, university partners, and USDA Forest Service National Forest System from the regional, forest and district levels, Research and Development, and State and Private Forestry within the Washington Office with the following objectives:

1. Engage North Central Washington wildfire practitioners in discussions of preliminary CoMFRT findings;
2. Develop an integrated understanding of CoMFRT research findings that builds on local knowledge, experience and expertise;
3. Identify gaps in knowledge and practice that could further efforts to address wildfire risk within the North Central Washington region;
4. Develop actionable strategies and/or recommendations based on research findings and local knowledge for the North Central Washington region to deliver to USFS.

And desired outcomes:

1. Greater awareness and engagement among North Central Washington wildfire practitioners with CoMFRT research findings;
2. Identification of ways that this research can support efforts at local, state, and federal levels to address wildfire risk in the North Central Washington region;
3. Identification of strategies, activities, or investments that could be implemented by public and private local, state, or federal actors (e.g., agencies, NGOs, etc.) to address wildfire risk in the North Central Washington region;
4. Identification of gaps in knowledge and practice that could improve efforts to address wildfire risk in the North Central Washington region.

Key barriers and challenges identified

The CoMFRT research team presented a number of challenges to managing wildfire risk from interviews collected with wildfire managers and practitioners in the North Central Washington region. Challenges included inadequate time, resources and personnel to address the problem, challenges emerging from rules and mandates embedded within the agencies (i.e., the *National Environmental Policy Act 1970* (NEPA) process, air quality restrictions), barriers related to sharing resources, coordinating across jurisdictions and mandates, a lack of trust among collaborators, and a lack of agency legitimacy (see posters in Appendix for more details). Participants generally agreed with the challenges presented, and

identified additional challenges throughout the workshop. These additions included the complexity of managing wildfire risk across boundaries, issues specific to turn over within the USFS, public understandings of the wildfire problem as well as declining timber product markets in the region.

Participants identified a general need to create a different culture around fire prevention and mitigation that stemmed from divergent perspectives on the role and use of certain wildfire management tools. Participants suggested that the current system may ‘reward bad behavior’ (inaction or complacency), a challenge that is compounded by the fact that the wildfire problem isn’t owned by any one group individually, and therefore addressing wildfire risk is a responsibility that transcends individuals and organizations. As such, prevention and mitigation represents a coordination challenge among a diverse group of individuals and organizations. Working collectively takes time, and requires trust and dedicated resources to support coordination. Challenges associated with the kind of coordination imagined is compounded by participants’ sense that non-federal practitioners lacked the time to devote to professional development and education. Some participants discussed the potential for formal certification processes to build both capacities as well as credibility of the expertise of practitioners. In the absence of a formal certification process, some participants felt their expertise may not be recognized in broader collaborative engagements with the USFS and other partners. Other participants noted that collaboration could be undermined by ‘turf wars’ and competition for finite resources (e.g. grants) to perform fuel reduction work. Many of the local groups are non-profit organizations and rely, in part, on grants to fund their work. The workshop attendees reported that better coordination and financial investments could ease some of these challenges.

Participants discussed the role of timber harvests as a mechanism to offset the costs of fuel reduction. Importantly, this tactic is only economically viable in a limited range of circumstances. Options discussed included biochar, wood pellets and cardboard, however, workshop attendees were skeptical about the economic viability of these. One participant noted that industries are hesitant to commit to building mills and other processing facilities without a guaranteed supply of biomass or subsidies.

Specific challenges discussed about the USFS related to turnover within the agency. Participants suggested that turnover can result in a loss of local experience and knowledge in the wildfire governance network. Such losses are compounded by the need for partners of the local USFS district to establish a relationship with the new incumbent. People who participated in CoMFRT research interviews talked about the need to establish trust through relationship building. Workshop attendees expanded this point to stress the need to build relationships as a way of verifying the new incumbent’s competence.

Opportunities and visions for the future

Attendees participated in a scenario exercise that was designed to help participants think beyond their typical perspective and consider two futures: one in which wildfire mitigation proceeded much as it has today, and another, where collaboration, coordination, and mitigation are prioritized (see Appendix

Scenarios). This led to a discussion about what a desirable future could look like, and the types of support that might be needed to bring this about.

The idea of “fire enlightenment” or learning to “live with fire” was central to participants’ notions of a desirable future. This referred to the notion that cultural understandings allowed and supported fire in the ecosystem. This included awareness of what it meant to live in a fire-adapted ecosystem, and a willingness to live with that risk. In that future, for example, codes and ordinances that shape development reflect that cultural understanding. Participants discussed needed educational investments at all levels of the community, and the need for coordinated messaging across local and state levels. In this future, participants echoed the need for an “all hands, all lands” approach (see Charnley et al. 2017), which comprised a coordinated, integrated and inclusive approach to management across jurisdictions as well as before, during, and after a fire event. Workshop participants suggested that this would require strong interpersonal relationships and leadership, alongside decreased turnover within the agencies.

Participants noted that realizing this future vision likely requires a different approach to funding and investing in wildfire prevention and mitigation. This involved a coordinated and distributed approach to investment that rectified the current imbalance in funding for suppression and mitigation, and supported innovation and targeted investment on the activities that are needed in places that are ‘ripe’ for investment (see more details below). Suggested approaches to funding included insurance surcharges, local improvement districts, system development charges, private capital such as bonding, and recreation use tax. Participants’ comments also focused on concerns about development in the wildland-urban interface and the need to capture the true cost of development, and the importance of incorporating ecological considerations into development planning.

Participants characterized funding dilemmas as a notable challenge, suggesting a need to foster “innovative” or alternative funding mechanisms. First, they suggested that this challenge could be viewed as ‘spending differently’ whereby some portion of the enormous investments in suppression could be redirected toward mitigation efforts. Second, mitigation not only takes an initial investment, but also requires sustained funding for maintenance of fuel treatments. Third, institutional processes can disrupt the flow of funding opportunities, making the distribution of mitigation dollars more difficult. “FEMA red tape” was specifically raised in this context. Participants noted that funding is typically contingent on the sole metric of “acres treated”, which may limit funding for investments that facilitate mitigation implementation. This discussion also highlighted the need to develop good acceptable measures beyond acres treated that are valid, local and accountable, which was addressed further on the second day of the workshop.

The final theme that emerged in discussions about the future was a need to create a culture of learning and sharing across silos and communities. Attendees suggested that this could focus on creating a ‘continuous learning environment’ that reflects on success as well as failure. The specific ‘After the Flames’ conference was raised as a good example that could be replicated.

Breakout Sessions

On the second day of the workshop, a smaller group of people worked on three focal areas that were identified by attendees the previous day: network coordination, measuring progress (“beyond acres treated”), and assessing readiness (“ripeness”). All participants contributed to these topics, in two rotating breakouts. Each breakout focused on problem identification, desired response, possible actions that can be taken in the next 1-2 years (and by who), metrics for assessing progress, support required from federal agencies, required funding, and next steps.

Network Coordination

Network coordination groups discussed how to improve wildfire management in the region by leveraging new and existing partnerships. The discussion began by having participants draw a diagram to visualize the connections among organizations needed to foster further and improved wildfire mitigation efforts. The discussion was facilitated in two groups of 5-7 individual participants. Participants shared their diagrams, compared among themselves, discussed partnerships that already exist, linkages that do not exist but should, as well as barriers to establishing linkages. Some organizations showed up on nearly all the diagrams (e.g., USFS, WA DNR), while others were dependent on the author (e.g., specific fire districts, non-profits, conservation districts). One participant noted the relatively recent contributions of universities and local conservation districts, both of which bring skills that were not previously present. Another participant noted how several groups are increasingly isolated, including rural fire districts. Several participants noted the importance of local involvement, including fire districts, cities, and business groups.

The majority of the diagrams drawn by participants included linkages that already exist in one form or another, as opposed to non-existent links that should be developed. Some participants singled out WAFAC as a natural coordination hub, though others identified conservation districts and community fire coalitions as occupying similar roles, particularly at more local scales. When asked why the existing connections weren’t solving the problem, both groups indicated that the actors are “stretched thin,” reflecting limits to time, staff, and money. For many working locally on wildfire risk issues, collaboration represents a key part of their job, but often takes place outside the practitioner’s scope of work and individual responsibility. Participants felt that collaboration serves to build and maintain trusting partnerships that translate to an overall improvement of how practitioners manage risk. Yet the scale of the problem and its many layers demand collaboration above what existing time, funds and staff allow. Further, the problem cannot be solved without considering unique social perspectives of an individual community and that community’s willingness to participate in planning and implementation of mitigation activities. Although many actions were suggested, the most concrete actions discussed by participants were (1) hiring a mitigation coordinator for the region, and (2) developing a multi-agency partnership with a paid point person.

With these actions in mind, each group then discussed possible metrics to measure success, the needs for agency support, funding, and next-steps. Measures of success included the persistence of the coordinator or paid multi-agency partnership position, success of the position in leveraging resources

(i.e., investments in the position vs investments in mitigation outcomes), and documenting past and current success stories of cross-boundary mitigation in the region. To support these outcomes, participants identified the need for leadership from WA DNR, federal land management agencies, the WA Conservation Commission, and the state legislature to prioritize coordination through the funding of a paid position. Discussions about funding highlighted the need for a shared funding model to distribute risk among stakeholders and increase the stability of the position. One participant suggested that the state should take the lead by offering part of the resources needed for the position to encourage others to match state resources. Contributions could be cash or in-kind resources (e.g., office and meeting space, benefits management, etc.).

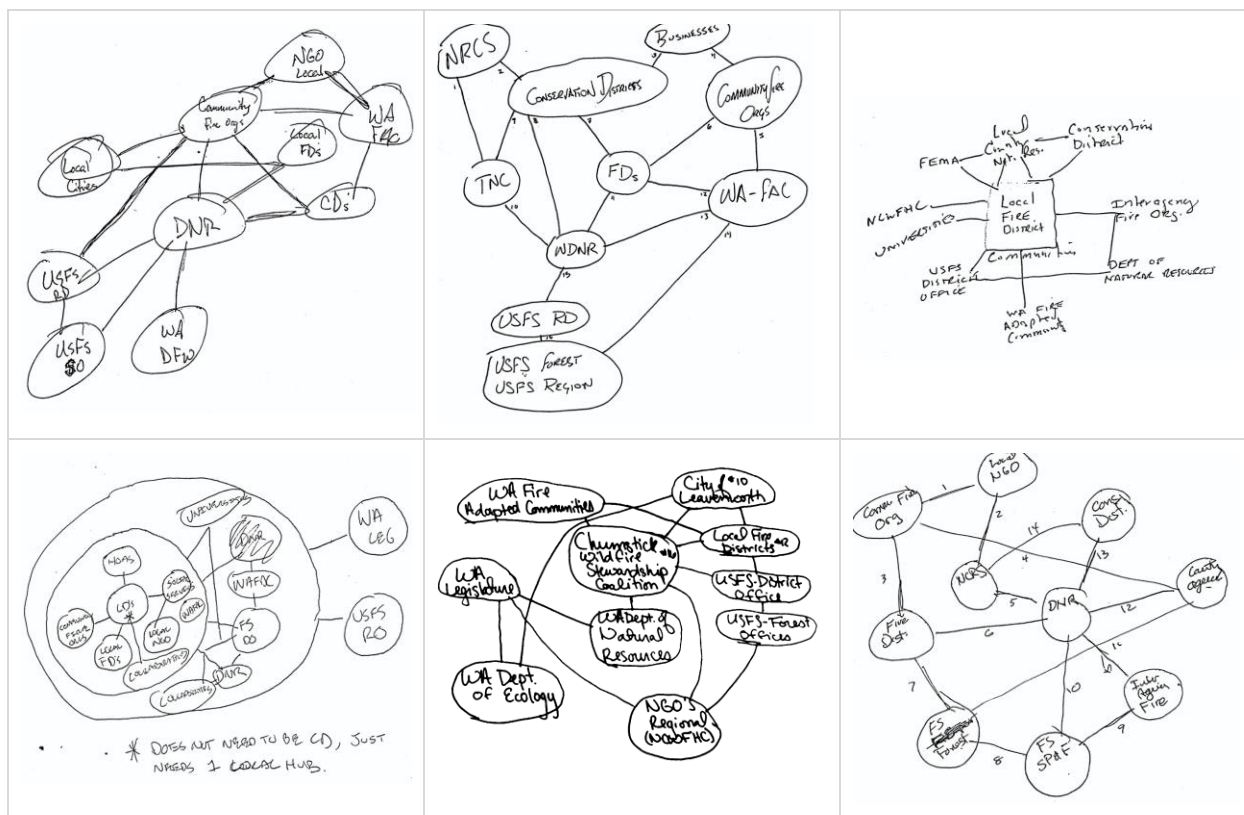


Figure 1. Six examples of network diagrams drawn by stakeholder participants to illustrate connections between organizations needed to improve mitigation efforts in North Central Washington. WA Department of Natural Resources (WA DNR), local fire districts (FD), and local conservation districts (CD) were often drawn in the center, reflecting their critical role in coordination.

Several participants highlighted the Washington State Wildland Fire Protection Strategic Plan as a starting place for next-steps. In particular, the plan's strategy 1.3¹ focuses on establishing regional and local coordinating capacity through the creation of regional coordinating councils and county level fire-adapted community coordinator positions. Participants agreed that a pilot project is an important next

¹ <https://www.dnr.wa.gov/StrategicFireProtection>, pg 63

step to begin implementation. A pilot project could help to develop broader experience and recommendations related to the appropriate operating scale and role of the coordinator positions. Participants also suggested that although the pilot could be led by Washington State, that the pilot should employ a shared stewardship model that employs support (financial and otherwise) from the diverse set of stakeholder agencies and organizations in the region.

Measuring Progress (“Beyond Acres Treated”)

This discussion revolved around the need for additional metrics to measure progress beyond counting acres treated as the primary measure of success. Acres treated was regarded as a metric that is too narrow to adequately capture the range of objectives related to wildfire risk management, prevention, mitigation, resilience and adaptation. Thus, there is a need for a suite of metrics that work for various audiences, and in different agency and community contexts that consider a range of biophysical, social, economic, values at risk, and community outcomes.

The two groups identified a range of potential additional metrics, including metrics related to the following:

- homes hardened
- parcel risk assessments
- adoption and enforcement of WUI codes
- ingress/egress
- shelter in place/safe zones
- number of people evacuated
- community assessments/plans
- community attitudes
- agency FTE dedicated to working with communities
- community resilience
- social networks
- human ignition
- responses to specific outreach activities
- smoke emissions
- ER visits related to smoke
- changes in wildfire
- change in biophysical risk
- impacts to recreation opportunities
- agency capacity to proceed without litigation

More broadly, both community capacity and social vulnerability need to be better accounted for in metrics used to show progress in order to account for the different kinds of capacities and vulnerabilities that exist in different types of communities.

Participants identified the need for a process to engage diverse stakeholders in developing and piloting a range of social and biophysical metrics. This process could address the issue of interoperable metrics and data across different agencies and should build on existing work on social and biophysical metrics being conducted within the agencies and in academia. Once metrics are adopted, there will need to be a commitment on the part of multiple agencies and organizations to iteratively revising them and to build in accountability for collecting data at different scales.

Assessing Community and Agency Readiness (“Ripeness”)

This discussion revolved around the need to prioritize strategic investments in communities that are ready or “ripe” for wildfire work. The participants noted that the current metric that counts “acres treated” leads to investments based solely on biophysical risk. This approach may be unwise, because in some locations with high biophysical risk the necessary willingness or capacity to proceed may be lacking. The idea of “ripeness” includes the following: community and agency willingness to collaborate; agency and community capacity for innovation and experimentation; agency and community flexibility; agency and community ability to leverage other attributes or resources; and agency and community tolerance for risk. It was noted that there isn’t likely only one path to ripeness; ripeness may look different in different types of communities.

Participants noted that prioritizing investments could be facilitated through the development of a rapid assessment tool that measures community and agency ripeness using quantitative and qualitative metrics. Such a tool needs to rely in part on local knowledge and experience to effectively assess ripeness. Metrics to measure ripeness could also help take assessment beyond acres treated and thus are very much related to the ideas described above. Participants discussed how to move specific locations toward ripeness in order to ensure investments are as effective as possible. The assumption was that investments in ripe locations are more likely to yield positive results than investments in locations that are simply high risk.

The metrics above are meant to evaluate agency and community readiness to work independently and together to advance work on wildfire risk management. Ripeness is about shared readiness to work together to determine which projects make sense for a particular landscape and community. Later in the workshop there was discussion of metrics to measure social license, to determine where and when the agency has public support to take particular actions (e.g. prescribed burning). It is important to note that the metrics above do not measure social license (i.e. social acceptability) but rather shared readiness. There was also discussion of the difference between social license (defined as community or public support for or the social acceptability of an agency proposal) and social contract (defined as an informal agreement between multiple parties which denotes particular obligations from all parties).

Recommendations

The following recommendations are a result of the co-production process that aimed to integrate research findings with local, knowledge, experience and expertise. Workshop recommendations coalesced around primary areas: coordination and coordinators, and metrics.

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Coordination

- Coordination may enable resources to be leveraged strategically to create efficiencies instead of competition; however, coordination itself requires investment to connect otherwise disconnected parts of the wildfire risk management or governance network;
- Efficiencies in supporting coordination may be found through resourcing a diverse group of boundary spanning organizations and individuals - those who build connections in the network.
- The time and effort required to establish collaborative efforts is an investment that could pay off in the future. There is a need to track and measure how investments influence network and community capacity to live with and manage wildfire risk.
- While agency/legislative support for coordination is necessary, coordination should be grounded in the local conditions, drawing on place-based knowledge and existing local relationships to help design and carry out wildfire planning.
- Investing in coordination will require diversifying the revenue stream for collaborative adaptation efforts and ensuring the sustainability of planning efforts. Consider increasing mitigation investments to more closely match investments in response.

Coordinators

- A paid coordinator, with the appropriate training, professional development, local knowledge, and local relationships could provide critical support to implement adaptation strategies across communities. This coordinator should not be pulled into suppression-related duties.
- As it is unlikely that any single organization has the resources to support coordination functions, exploring opportunities to pool funding may be a pathway to support. Of note, [Washington State Wildland Fire Protection Strategic Plan](#) (see specifically the plan's strategy 1.3, p. 63) outlines the establishment of regional and local coordinating capacity. Such mechanisms could be leveraged to develop a pilot project and monitor the impact of this investment.
- Consider other models/resource domains where coordinators have supported cross boundary work - for example watersheds - to learn from those efforts.
- Design and implement a training program intended to empower coordinators with the skills, knowledge, and abilities to effectively coordinate fire mitigation activities across diverse sets of stakeholders.
- Consider supporting a project focused on placing coordinators in key locations and study related outcomes.

Metrics

- Move beyond acres treated as a metric to measure *progress* in wildfire mitigation and prevention. New metrics should incorporate factors related to a range of social, economic, values at risk, and community outcomes, in addition to commonly used biophysical metrics.
- Coordinators, in collaboration with broad representation of actors in the local wildfire management system, could identify and pilot scale-appropriate metrics that account for a variety of values at risk.
- A coordinator's service area could also be a metric. Example being the influence the coordinator has on area with high biophysical risk, and low capacity. We agreed that these areas might not be ripe, or ready for investment, but that should not exclude them from involvement with a regional coordinator.

Appendix 1: Acronyms

CoMFRT - Co-management of wildfire risk partnership

FEMA - Federal Emergency Management Agency

FTE - full time equivalent

NEPA - National Environmental Policy Act, 1970

NGO - Nongovernment organization

USFS - United States Forest Service

WA DNR - Washington State Department of Natural Resources

WAFAC - Washington State Fire Adapted Communities Network

Appendix 2: Agenda

16th October

- | | |
|-------|--|
| 10 | Welcome, meeting overview and project introduction |
| 10.40 | The wildfire mitigation problem in North Central Washington (break out groups) |
| 11.15 | CoMFRT Poster session (rotating break out groups) |
| 12.30 | Lunch |
| 1.30 | Reflections on poster session (plenary) |
| 2.20 | Take a look back from the future |
| 3.00 | Break |
| 3.15 | What does the future look like and how do we get there? |
| 4.15 | Wrap up |
| 5.00 | Close |

17th October

- | | |
|-------|---|
| 8.45 | Welcome and overview of the day |
| 9.00 | Building recommendations or strategies (working groups) |
| 11.00 | Break |
| 11.15 | Working group report out |
| 12.30 | Next steps |
| 1.00 | Close and lunch |

Appendix 3: Participant list

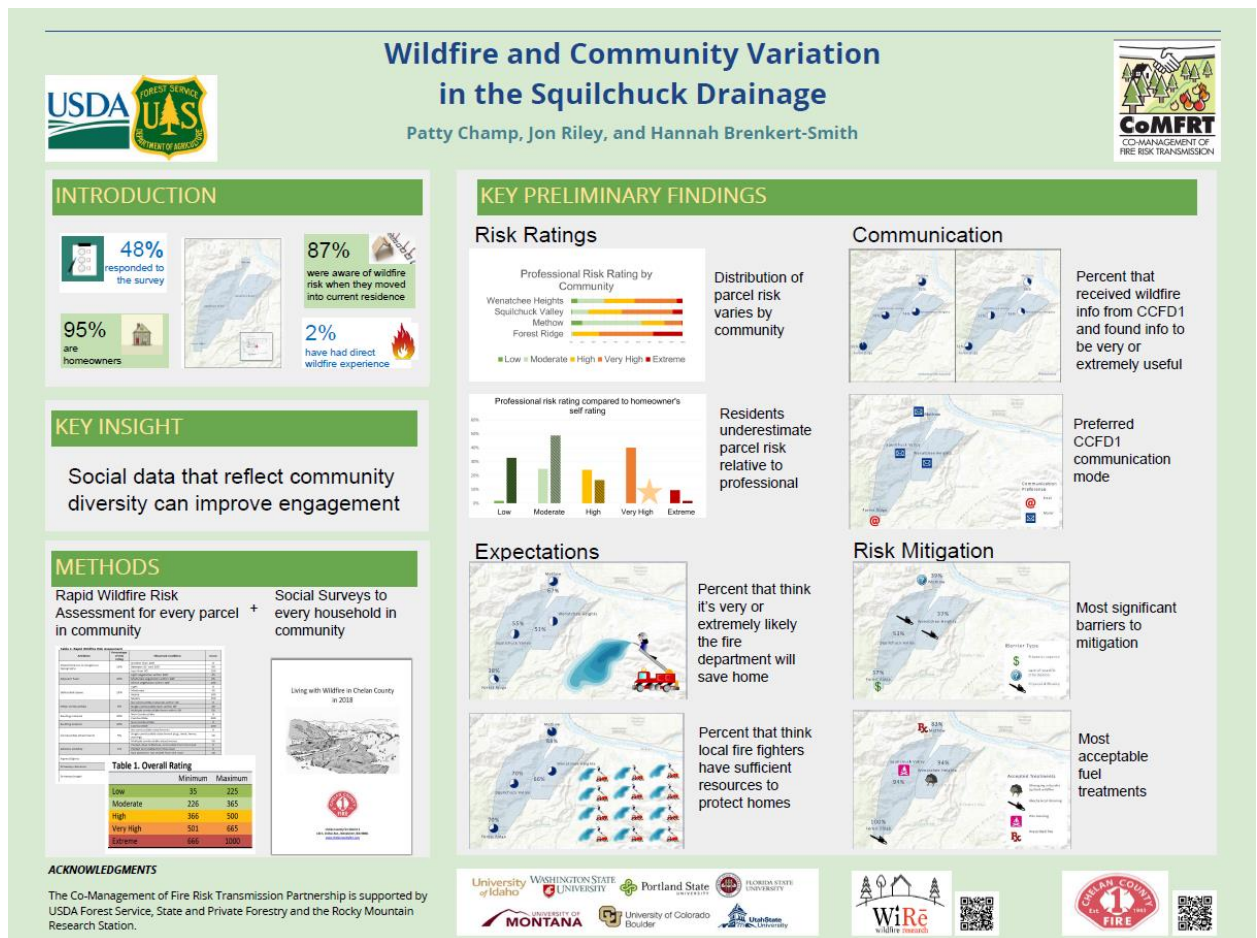
Al Murphy	WSU Master Gardeners
Annie Schmidt	(In transition)
Bobby LaPoint	Department of Natural Resources
Brian Brett	Chelan County Fire District #1
Carlene Anders	Okanogan Co. Long Term Recovery Group
Christine Morgan	Icicle Fund
Clint Cross	USFS, WO, Assistant Director of Office of Landscapes and Partnerships
Corrine Hoffman	Chumstick Wildfire Stewardship Coalition
Craig Nelson	Okanogan Conservation District
Curt Soper	Chelan-Douglas Land Trust
Dana Skelly	Regional Fuels Program Manager
Don Fortier	Grant County Fire
Gary Berndt	WA Department of Natural Resources
Jim Menakis	USFS, WO, Office of Landscapes and Partnerships, National Fire Ecologist
Jon Riley	Chelan County Fire District #1
Kent Sisson	Chelan County Sheriff's Office - Emergency Management
Kirsten Cook	Okanogan Conservation District
Kyle Cannon	US Forest Service, Okanogan-Wenatchee Forest
Matt Castle	US Forest Service, Okanogan-Wenatchee Forest
Matt Rollins	US Forest Service, Pacific Northwest Research Station
Mick Lamar	Fire Chief District 9 Lake Wenatchee Fire and Rescue
Nolan Brewer	Washington DNR
Patrick Haggerty	Cascadia Conservation District
Reese Lolley	The Nature Conservancy
Rich Eliot	Kittitas County Fire District 2
Rob Allen	US Forest Service, Okanogan-Wenatchee Forest
Rose Shriner	Perteet Inc/Kittitas Fire Adapted Communities Coalition
Sara Rolfs	The Wildfire Project/Kids in the Forest
Sean Hopkins	WA State Department of Ecology
Walter Escobar	WA DNR, Chelan Fire Unit

Appendix 4: CoMFRT Posters

1. WiRe Poster

Key findings

- Distribution of parcel risk, preferred communication mode, and barriers to mitigation vary across the communities
- Most survey participants think the fire department will save their home and the fire department has sufficient resources to protect homes during a wildfire event



2. Community Archetypes

Key findings

- Understanding the diversity and scale of human communities across a landscape provides key understandings that facilitate coordination across ownerships, including public lands that those populations care about.
- Facilitating fire adaptation will require dynamic experimentation with different approaches that best match local cultures and communities. Piloting and developing systematic tools for creating these multi-faceted approaches to fire adaptation can provide a key bridge between science and practice.
- Coordinated efforts to work at broader scales and across boundaries (i.e. Kittitas Fire Adapted Communities Coalition) need room and credibility to serve as bridging institutions between larger government agencies, individual landowners and local governments. The focus of these groups should be to working across the diversity of their landscapes and forge compromise around inherent trade-offs in larger fire management, including on public lands.
- Conflict or support for fuels reduction treatments is influenced by: (1) how well the logic and goals for the effort match local culture and; (2) how past and present perceptions of the sponsoring agencies influence their trust in the science underlying the management.



From Checkers to Chess: Case Studies of Local Context and Wildfire Adaptation

Travis Paveglio, Catrin Edgeley, Matthew Carroll and Mark Billings



Broad takeaways

- Coordinating fire management across landscapes needs to systematically document the diversity of communities, stakeholders
- Stakeholder planning for, reaction to wildfire adaptation differs at small scales, serves as a critical limiting factor
- Managers should strategically consider opportunities, audiences before crafting larger efforts
- Fostering fire adaptation will require arrangements that allow for flexible adaptation, translation across scales

Case studies of co-management

Methods

- Six in-depth case studies
- 17 Initial interviews to select cases
- Total of 112 interviews with 122 individuals; 5 focus groups with 51 individuals; organizational workshops
- What are the key factors of local social context that influence adaptive management of wildfire risk?

Explaining support, opposition to fuels treatment projects

- Three fuel treatments, same drainage
- Variable support, opposition based on:
 1. Alignment with local culture
 2. Relationship to agency/process
- Matching process, prescriptions to audience
- Leveraging mechanisms, but fragmenting a system?

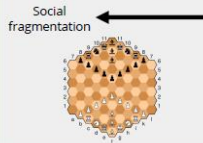
Social science: navigating the boards

- Different players, rules across diverse places
- Joining a game in progress
- Interaction, influence across scales



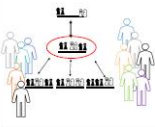
Understanding local context





Pathway mapping in the Ponderosa subdivision

- Interactive focus groups to "tailor" adaptation
- High social fragmentation in community
 1. Part-time amenity migrants
 2. Full-time residents
- Local conditions require high coordination
- Building community through discrete steps
- Mitigation that matches risk



Board hopping: Kittitas Fire Adapted Communities Coalition

- Diverse actors aggregating, coordinating fire adaptation efforts
- Potential for a number of benefits
 1. Bridging agency, organizational process
 2. Coordinated "voice" lobbying for change
 3. Flexible, consistent test-bed for adaptation
- Challenges identifying, messaging audiences; overcoming rigid nature of existing practice

NEXT STEPS

- Completing final case study in Wenatchee, comparing to ongoing efforts
- Creating narrative descriptions, assessments for "community archetypes"
- Systematically "mapping" communities for targeted experiments

ACKNOWLEDGMENTS

The Co-management of Fire Risk Transmission Partnership is supported by USDA Forest Service, State and Private Forestry and the Rocky Mountain Research Station

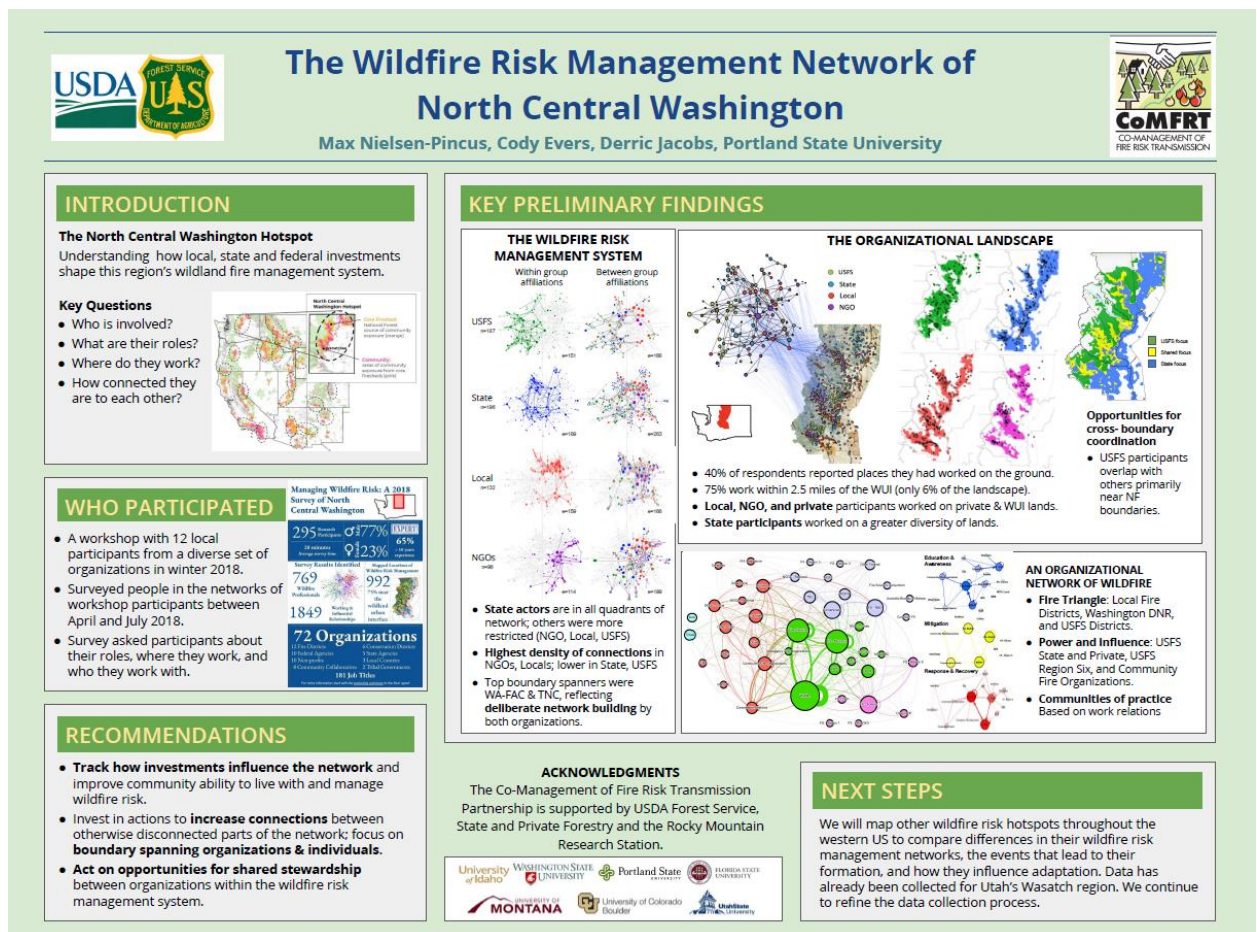





3. Social Networks

Key findings

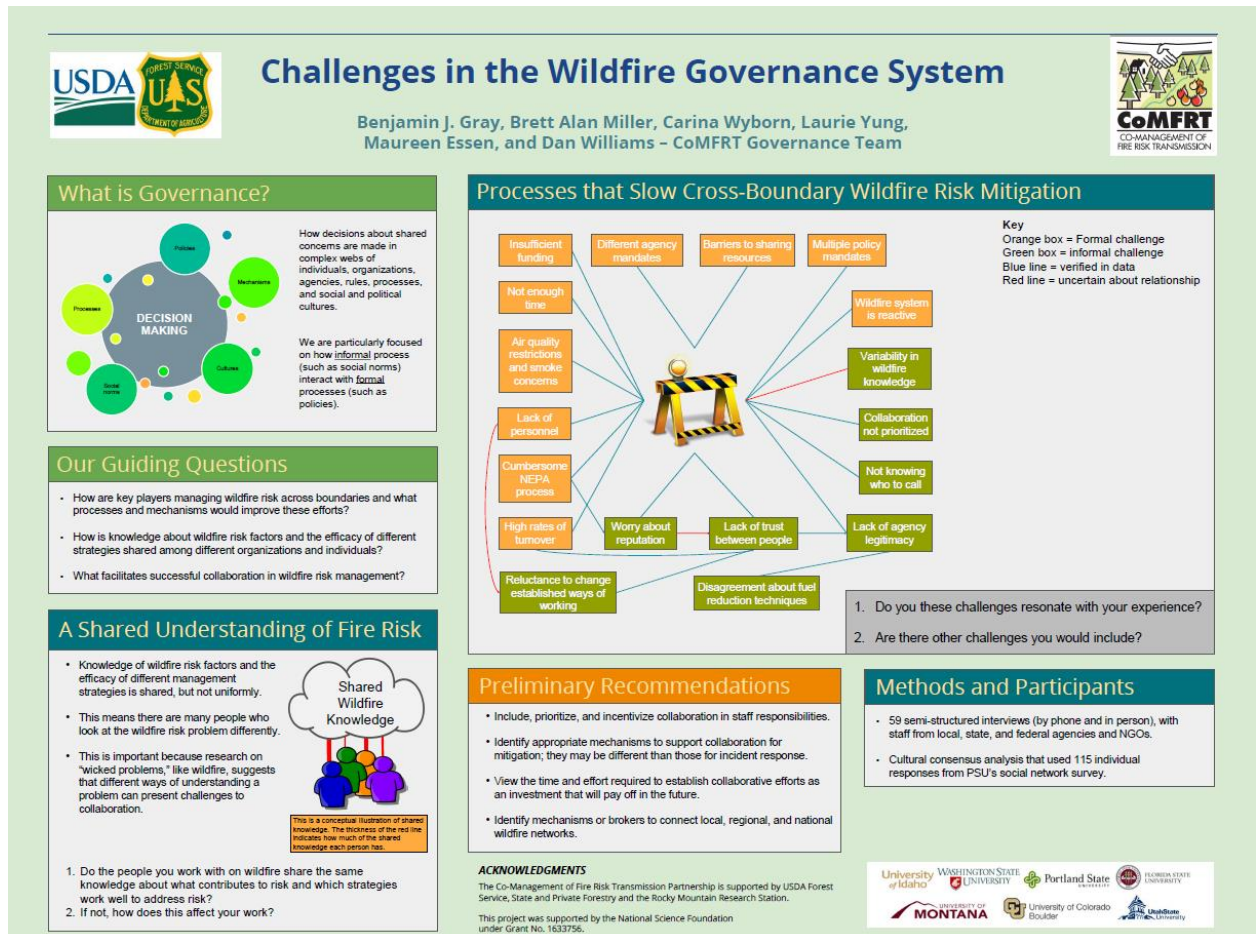
- The boundary-spanning roles of NGOs and the state in North Central Washington's wildfire management system reflects the deliberative investments in network building efforts like the Washington Fire Adapted Communities Network and the Fire Learning Network.
- At the center of North Central Washington's wildfire management system is "fire management triangle" comprised of relationships between district level National Forest staff, WA DNR, and local fire districts.



4. Governance

Key findings

- Include, prioritize, and incentivize collaboration in staff responsibilities.
- Identify appropriate mechanisms to support collaboration for mitigation; they may be different than those for incident response.



Appendix 5: Scenarios

Scenario A

At the December meeting of one of the local collaborative groups, attendance is better than usual, but still dwindling. It's easier for people to make room in their schedules in the off-season, but it's still hard for collaborators to make time in their schedules. And with the fire season getting longer and more intense, people are exhausted. Those in attendance today are debriefing the 2030 wildfire season, which was a particularly long season. The first major fire started in early June and the last fire burned into November. Unfortunately, resources have gotten thinner towards the end of the season as the fire

season has gotten longer. Local residents were angry that there weren't more resources committed to fires this year. Residents are on edge because it's been another bad year for smoke and the local paper published some alarming information about the health consequences of particulates.

This year the local fire districts are struggling to honor mutual and automatic aid agreements because of limited budgets. Unfortunately, you have found it difficult to participate in collaborations with other organizations (e.g. agencies, local conservation districts, local fire districts, and NGOs) because of your own workload and lack of resources. In past years Federal agencies have responded to increasing fire intensity by doing more land treatments but this year they reserved their funds for wildfire response and very little was spent on mitigation. Structures were threatened again this year. Development pressure continues to spill over the cascades, while landowners continue to struggle with finding and keeping homeowner's insurance. Unfortunately, despite collaborative efforts to address development in the WUI, the new developments are being planned without adequately considering fire risk.

Scenario B

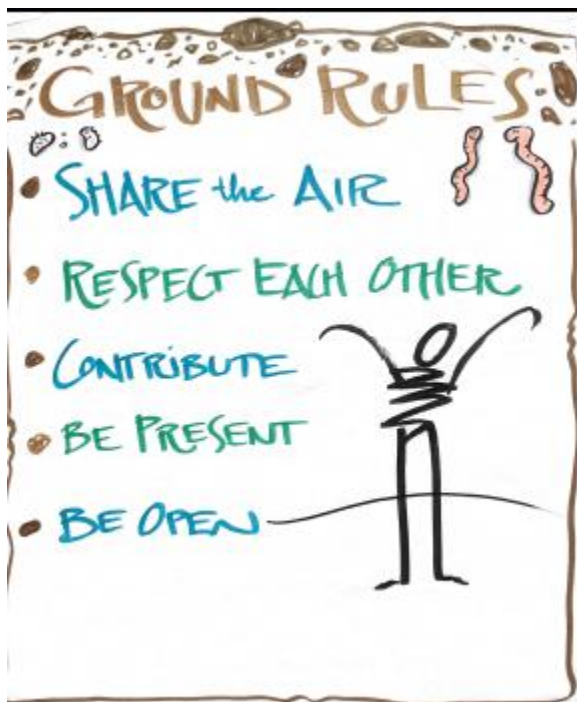
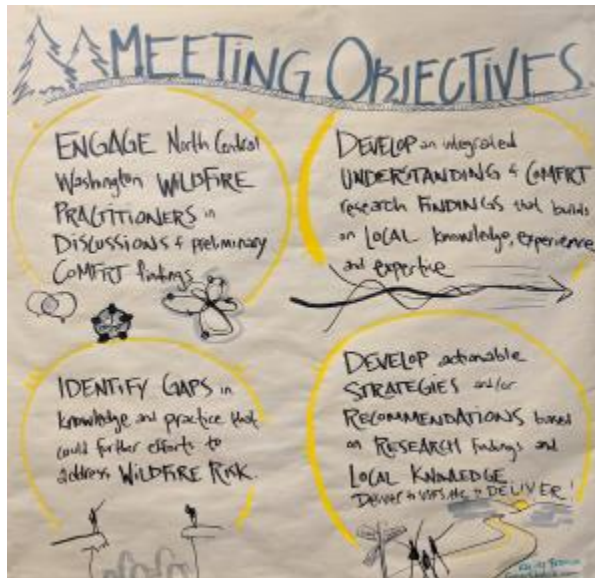
At the December meeting of one of the local collaborative groups, a wide diversity of organizations and individuals are in attendance. People have made room in their schedules in the off-season because they are excited about the progress we are making. With the fire season getting longer and more intense, everybody recognizes that this and similar collaborations are critical. Those in attendance are debriefing the 2030 wildfire season, which was a particularly long. The first major fire started in early June and the last fire burned into November. Fortunately, agreements made it possible to be flexible with resources throughout the season as the fire season has gotten longer. While local residents were on edge, the strong community response network and community liaisons have kept people informed throughout the fires season using social media and other tools. It helps that wildfire managers have been working with community health departments to identify ways to mitigate impacts of the increasing smoke where possible. It's also good that a WUI code was instituted in 2025.

This year the local fire districts were particularly helpful in responding to smaller fires outside of their jurisdiction so that federal and state resources could be used elsewhere. Budgets for local fire districts and collaborative groups have increased as a result of a reprioritization of federal and state funding alongside innovative funding mechanisms developed by this collaborative effort. Meanwhile, collaborative groups have been working with state and federal agencies to undertake restoration projects and prescribed fires across public and private land. There was some property loss this season, but you can already see the community response network functioning as anticipated and people are coming together to implement the recovery plans.

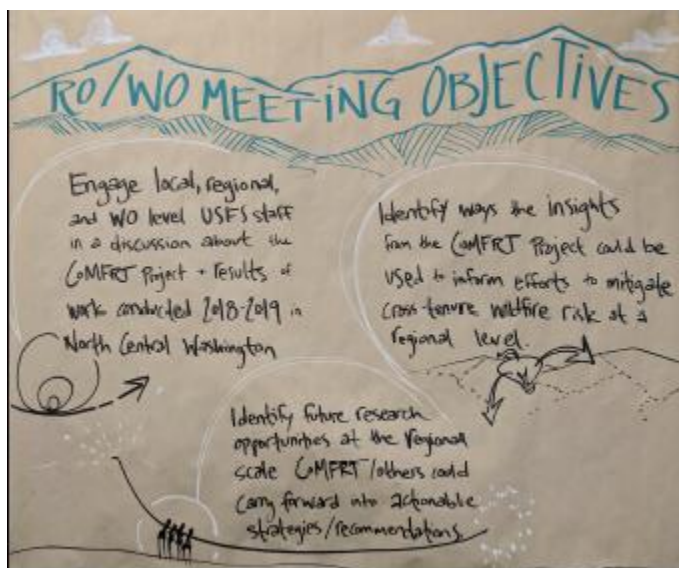
The discussion causes you to reflect on strategies that were put in place ten years ago, in preparation for the summer of 2020. Reflecting on this, you wonder:

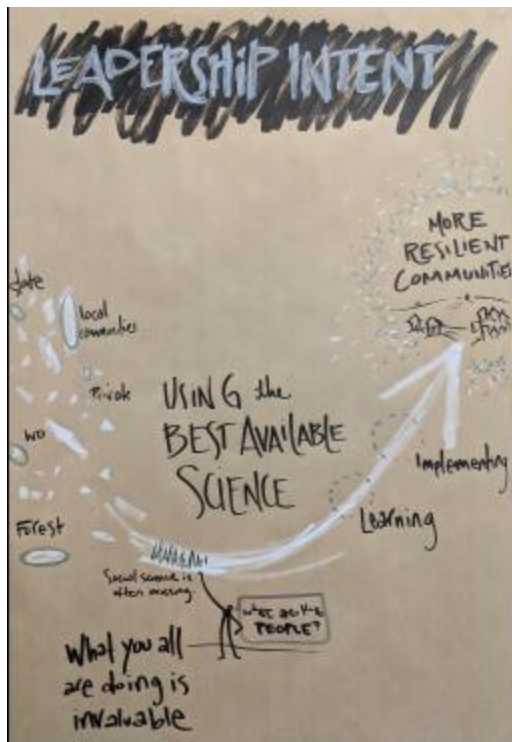
- What type of activities (and by whom) were undertaken to adapt to wildfire in this scenario? Could more have been done? How were these activities funded?
- Who do you think is at the collaborative meeting in the scenario and why? Who was missing and why?
- What role did local, state, and federal organizations (agencies, NGOs, and other stakeholders) play in this scenario and how are they working together?

Graphic Facilitation Images (ConverSketch - Karina Branson)











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