



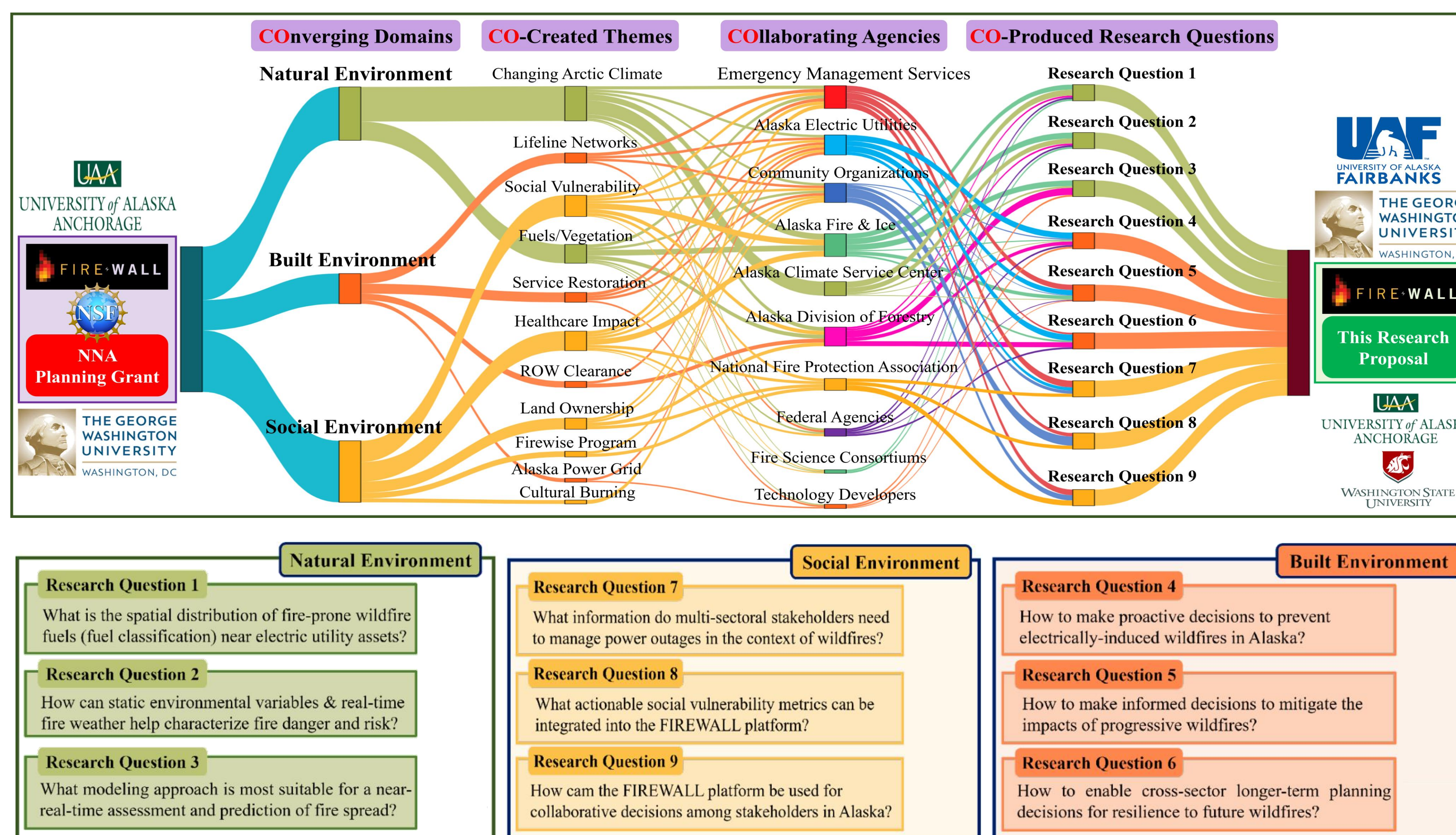
Foundations for Improving Resilience in the Energy Sector against Wildfires on Alaskan Lands (FIREWALL)



Goal

The principal objective of the 4-year FIREWALL research project is to develop an interactive risk-informed decision-making platform that holistically integrates (1) vegetation regimes and short-term fire behavior on the Alaskan landscape (*natural environment*), (2) Alaska's electricity network preparedness and response before, during, and following wildfires (*built environment*), as well as (3) health and social vulnerability of local communities and individuals in the Arctic (*social environment*). This synergistic approach aims to build trust and empower the Arctic communities, electric utilities, emergency responders, and health organizations with a collaborative capacity to conjoin resources and exchange information for enhanced situational awareness and improved resilience to wildfires.

FIREWALL is a Collaborative Project



Envisioned Research

- FIREWALL research is envisioned to:
- ✓ generate wildfire fuels map, GIS-ready products and datasets, and dynamic stream of fire activity data.
 - ✓ develop a suite of analytics that (1) quantify the spatiotemporal state of risk to the electric network operation when facing progressive wildfires and (2) advise on mitigation decisions.
 - ✓ develop a cost-benefit optimization platform that facilitates coordinated decision-making and resource allocation in planning for resilience against wildfires.
 - ✓ characterize the roles and responsibilities, decision-making processes, and informational needs related to community vulnerability among multi-sectoral stakeholders for unplanned and planned power outages and wildfires.
 - ✓ identify health and social vulnerability measures and risk indicators for Alaskans in the context of wildfires and electricity dependence.

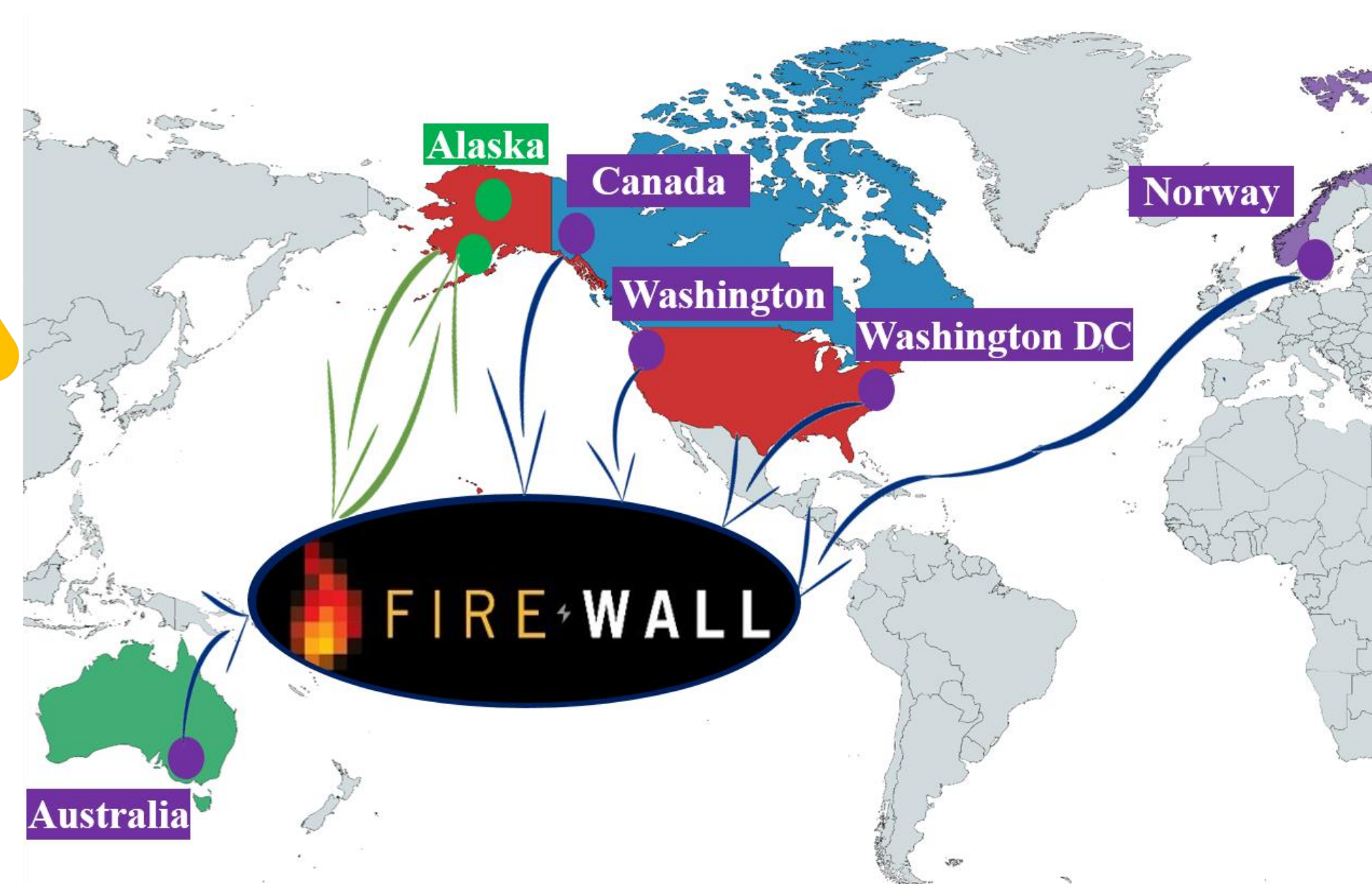
Background

- 2-year FIREWALL planning project started in 2020.
- FIREWALL workshop 1 was organized in September 2021.

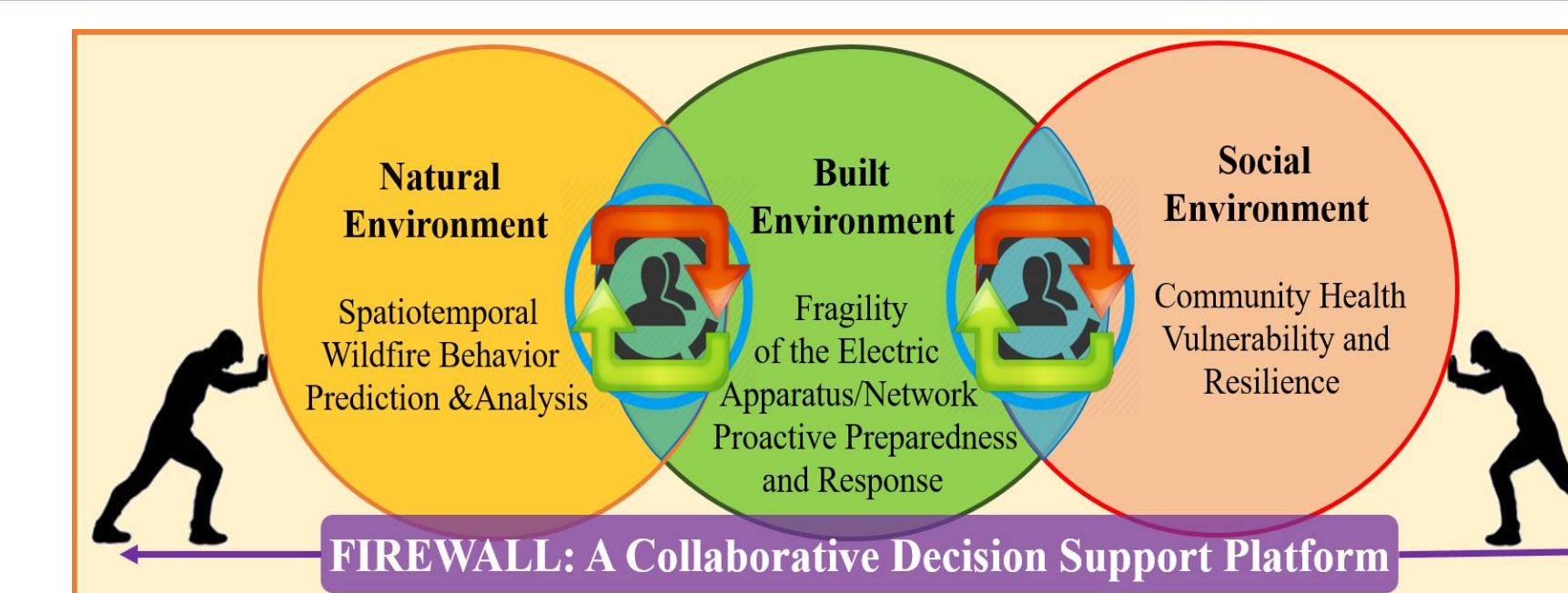
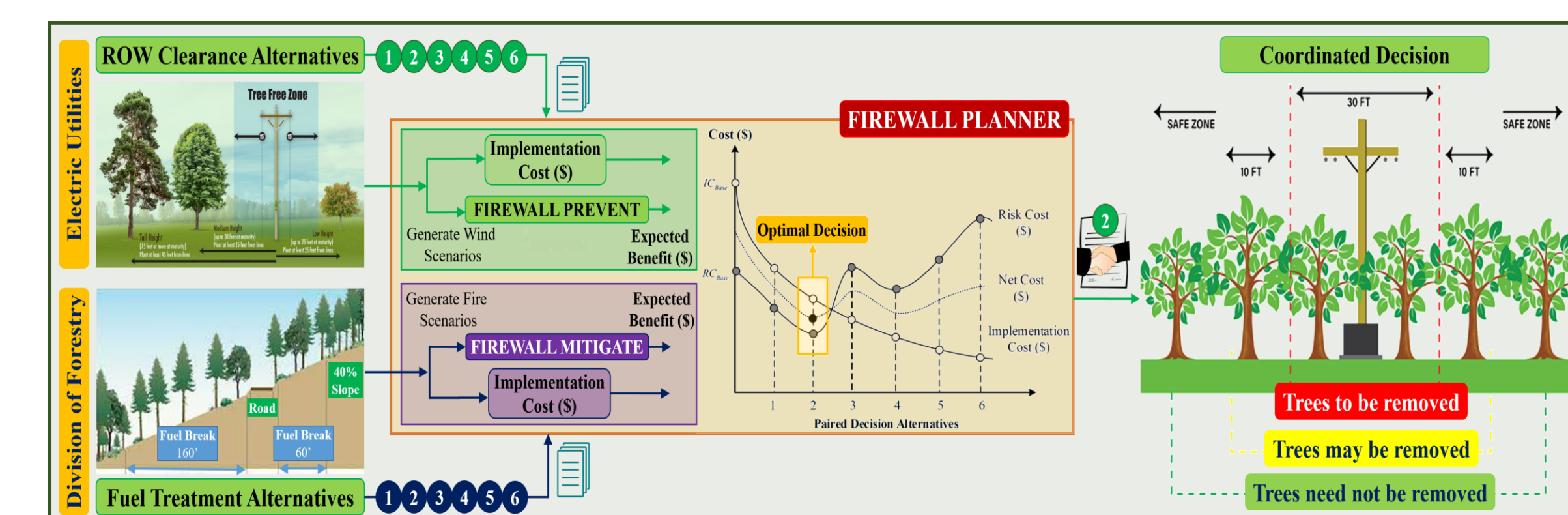
8:00-8:15	Welcome Speech
8:15-8:30	Keynote Opening
8:30-9:15	Panel 1: Wildfire and Communities
9:15-10:15	Panel 2: National Roadmap to Wildfire Resilience
10:15-10:45	Break
10:45-12:15	Panel 3: Electric Industry Perspectives on Wildfires Resilience
12:15-13:00	Panel 4: Fire Science and Wildfire Resilience
13:00-13:30	Break
13:30-14:45	Panel 5: Research Directions for Wildfire Resilience
14:45-15:45	Panel 6: State Perspectives on Wildfire Resilience
15:45-16:45	Panel 7: Wildfire Education, Communication, and Outreach
16:45-16:55	Media Display on Wildfires in Alaska
16:55-17:00	Workshop Adjourns

FIREWALL Team

The FIREWALL project converges a multidisciplinary team of academic, civic, community, and industry partners with complementary knowledge, skill set and domain experience.



Envisioned Products



References and Acknowledgment

FIREWALL WEB 2021: <https://coeng.uaa.alaska.edu/firewall/>
 FIREWALL Workshop 2021 video recordings, report, and list of panels: <https://coeng.uaa.alaska.edu/firewall/index.php/workshop2021/>

National Science Foundations (NSF) grant numbers: RISE-2220624, RISE-2220625, RISE-2220626, RISE-2220627.

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- Wildfire and electricity grid vulnerability: mhkapourchali@alaska.edu, payman@gwu.edu

Join us at the second FIREWALL workshop in summer 2023!

- 4-year FIREWALL Research Project Kicking off.

The advisory board members will frequently interact with the project team and will provide insights and guide on the project progress in meeting the envisioned milestones and the path forward. **Join our monthly meetings if you are interested in fighting wildfires in the Arctic!**