LOGIC MODEL for the Northwest Fire Science Consortium, FY24-25

Situation: The northwestern U.S. has diverse social-ecological systems, fire risks, and science needs. Extreme wildfire events and climate impacts further increase complexity of decision making. Land and fire management institutions are implementing new policies, strategies, and funding, but also face increased workloads and a plethora of new knowledge and innovations. The NWFSC expands its successful model for innovative delivery of relevant wildland fire science information to diverse audiences of federal, state, and Tribal land and fire management agencies; nonprofit and community-based organizations; Extension personnel; local partnerships and collaborative groups; and practitioners; and increases the inclusivity of its governance structure and activities. Linkages between outputs and outcomes are indicated by outcome #.

JFSP funding

Relevant fire science and knowledge

INPUTS

- UW, UO, OSU, PSU, PNW and Pacific Fire Science Lab, LANDFIRE, other knowledge generating groups

Knowledge, skills, expertise, and

capacities of operations team and management committee and their institutions

Input, networks, and capacities of partner sensing group (BIA, BLM, WA DNR, OR ODF, WA DOE, USFS

R6, NPS, TNC, USDA Climate Hub) and other collaborators including: - Other Tribal, federal, state agencies

- Nonprofit organizations
- Community-based orgs, collaboratives, all-lands partnerships
- Other FSEN when appropriate
- Western Coordinating Committee for Extension
- Fire Adapted Communities Network
- National Wildfire Coordinating Group
- Western National Cohesive Wildland Fire Strategy group
- Association of Natural Resources Extension Professionals, National
- Extension Wildland Fire Initiative - Prescribed fire councils & prescribed burn associations

End user expectations

Prior needs assessment findings and partner input (listed in Program of Work Drivers)

Planned needs assessment & end user roundtables determining content needs, desired formats, research & synthesis gaps

Diverse knowledges including peer reviewed scientific, Indigenous, practice-based

Gathering Input

- 1 Updated NWFSC charter (5)
- 1 Best practices for exchange activities & 1 review criteria for exchange outputs (1,2,7,13,14)

ACTIVITIES/OUTPUTS

- 1 Needs assessment & publication (4,6,8,12,13)
- Webinar to share/sense research needs (6,12)
- Submit research needs to JFSP Research Needs database (6,12) - 4 (2 annually) Summaries of sensing

roundtable input (5,6,8,12)

- Exchange Events and Products 1 Westside fire knowledge summit (1.2.3.4.6.8.11.12.14)
- 1 Multi-FSEN virtual workshop on equity and environmental justice, collaboratively developed with NRFSE (3.9.10.14.15.18.20)
- 3 Science application bundles consisting of multiple activities and outputs: 3 science syntheses, 3 research briefs or infographics, 3 webinars, 3 working sessions or field demonstrations, 3 new website topic pages, 3 social media & networking plans (1,2,4,11,12,14,16,17,19)
- Additional events and outputs as new science emerges
- Social **networking**, social media, monthly newsletter (1,2,4,5,13)
- Website maintenance & content expansion (1,2,4,5,13)

Program Networking

- Presentations, attendance at, support for regional and national meetings and conferences (1,2,6,7,16)
- PI membership or active role in firerelated organizations (1,2,5,6,15,16)
- Outreach to agency administrators & partner leads (1,2,3,4,6,13,14,15,16, 20)

OBJECTIVES, OUTCOMES, AND IMPACTS

SHORT

Objective: Improve information access, accuracy, awareness, and delivery across diverse end-users

CONCEPTUAL

- 1. Enhanced awareness and understanding of new research findings for reducing the occurrence of catastrophic wildfire and wildfire risk
- 2. Increased awareness of locally relevant methods to prioritize active wildland fire and fuel management, and determine most effective treatments
- 3. Enhanced awareness and understanding of concepts related to equity and environmental justice
- 4. Increased awareness of the NWFSC

CONNECTIVITY

5. Increased coordination of existing science delivery institutions through the NWFSC

Measurements:

- #s and types of scientist/manager/ practitioner participants in NWFSC . activities
- Post-event surveys
- Web metrics
- Qualitative evaluation of activities and outputs
- Feedback from partner sensing group

MEDIUM

Objective: Increase inclusion, multiway engagement, and co-production between research and the field

CONNECTIVITY

- 6. Increased familiarity, collaboration and co-learning among managers, practitioners, and scientists
- 7. Increased engagement among Tribal managers and scientists around fire science needs
- 8. Increase in requests for NWFSC assistance and expertise

CAPACITY BUILDING & **INSTRUMENTAL**

- 9. Increased science communication skills and science delivery approaches for scientists, researchers, and knowledge generators
- 10. Use of new communication strategies informed by social science to address local & regional fire issues
- 11. Managers increasingly address equity and environmental justice in planning fuels treatments & recovery approaches
- 12. Adoption and use of new methods or improved technology
- 13. Application of information and knowledge from NWFSC outputs
- 14. Diverse representation and inclusion of underrepresented groups in NWFSC activities and outputs

Measurements:

- #s and types of collaborative/coproduction research proposals & projects in region
- Post-event surveys
- Web metrics
- Qualitative eval of activities/outputs - Partner sensing group feedback

LONG

Objective: Promote collaboration and co-learning that addresses inequities and sustains and conserves resilient social and ecological systems

INSTRUMENTAL & CONNECTIVITY

- 15. Increased collaboration and inclusive public participation in management decision making
- 16. Increase in cross-boundary, science-informed management and partnerships
- 17. Cross-boundary use of prescribed fire and other fire and fuel management practices when and where appropriate

SOCIO-ENVIRONMENTAL

- 18. Mutual inclusion and respect for Indigenous knowledge and rights in research and management efforts
- 19. Improved landscape resilience to disturbance
- 20. Improved safety, health, and resilience of NW communities

Measurements:

- Interviews with fire science producers & consumers
- Policy documentation
- Testimonials
- Feedback from partner sensing group
- Participation of Tribal managers & scientists in NWESC activities
- Invitation of NWFSC partners to appropriate Tribal activities