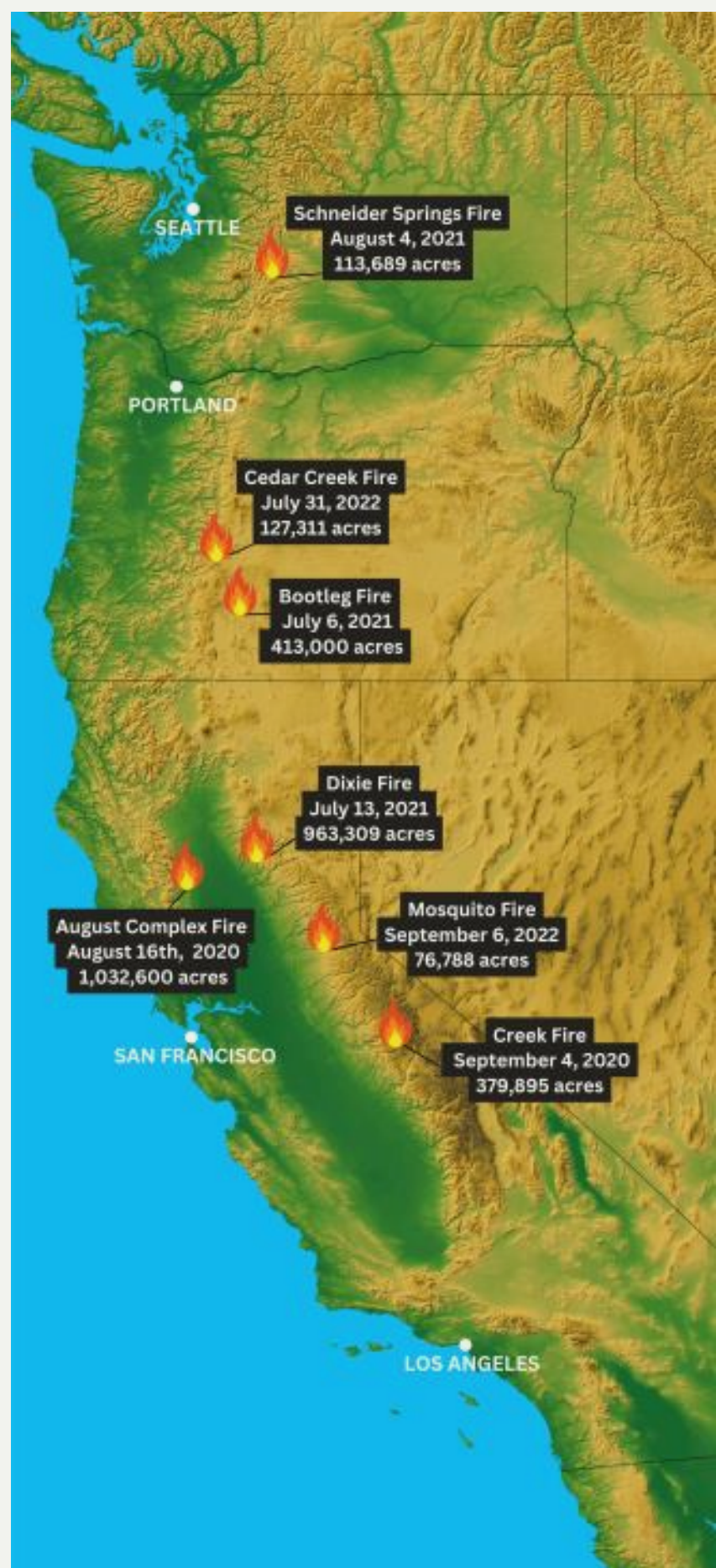


# Climate Adaptive Post-fire Restoration and Pre-fire Planning

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## Research Need

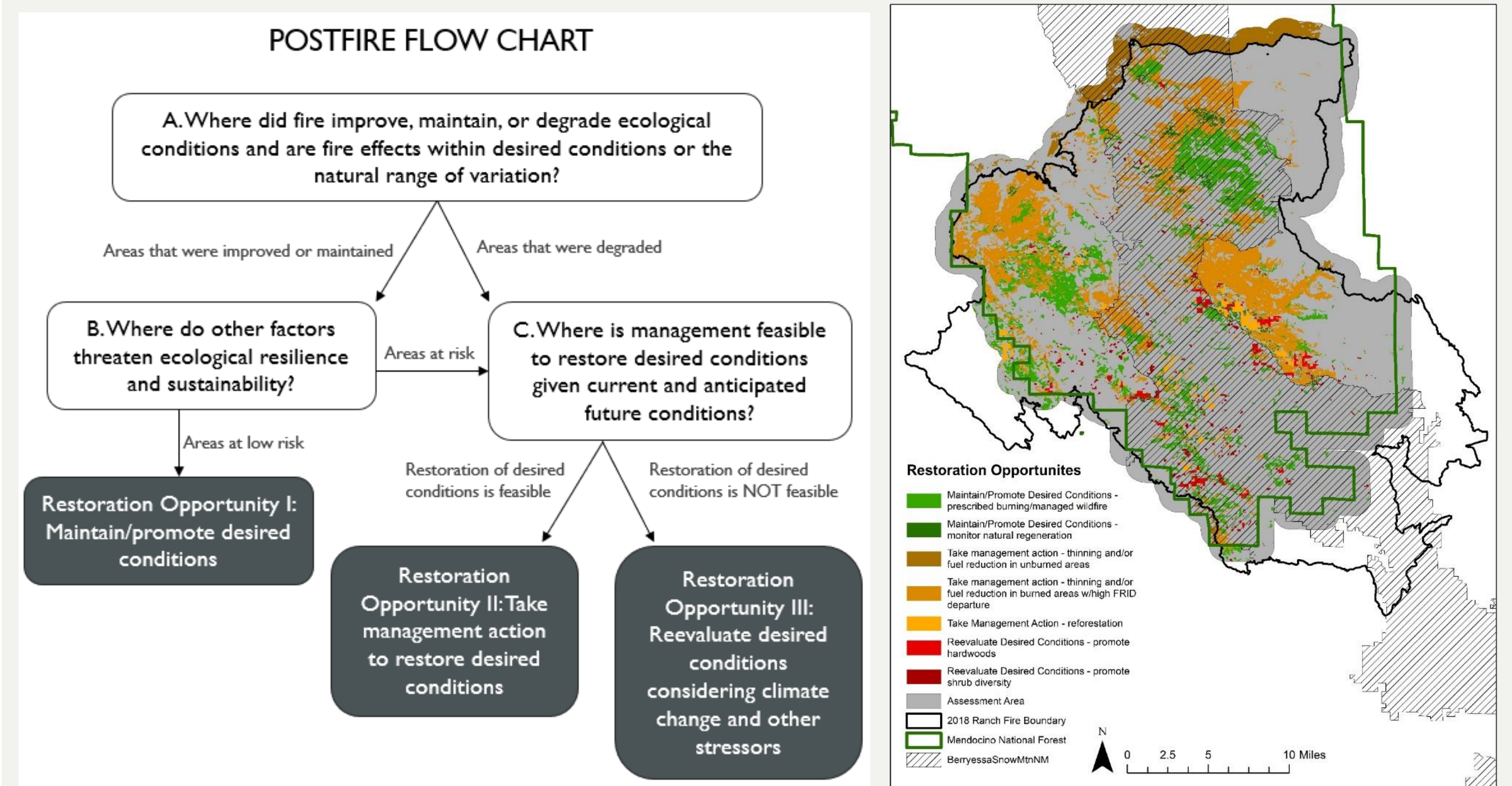
The USFS Pacific Southwest and Pacific Northwest Research Stations are combining their efforts to answer some of the major land management questions emerging in this era of uncharacteristic wildfire.



Research and long-term studies are needed to better understand where managers most need to **apply fire and fuels treatments** (including prescribed fire and mechanical treatments), **cultivate future forests** (including promoting natural regeneration, planting, and preparing young forests for disturbance), and **protect the remaining high-value forest refugia**, necessary for the persistence of key wildlife species.

Map of fires sampled in California, Oregon, and Washington as a part of this project. Fire labels reflect the initial ignition date and the approximate fire size at the time of containment.

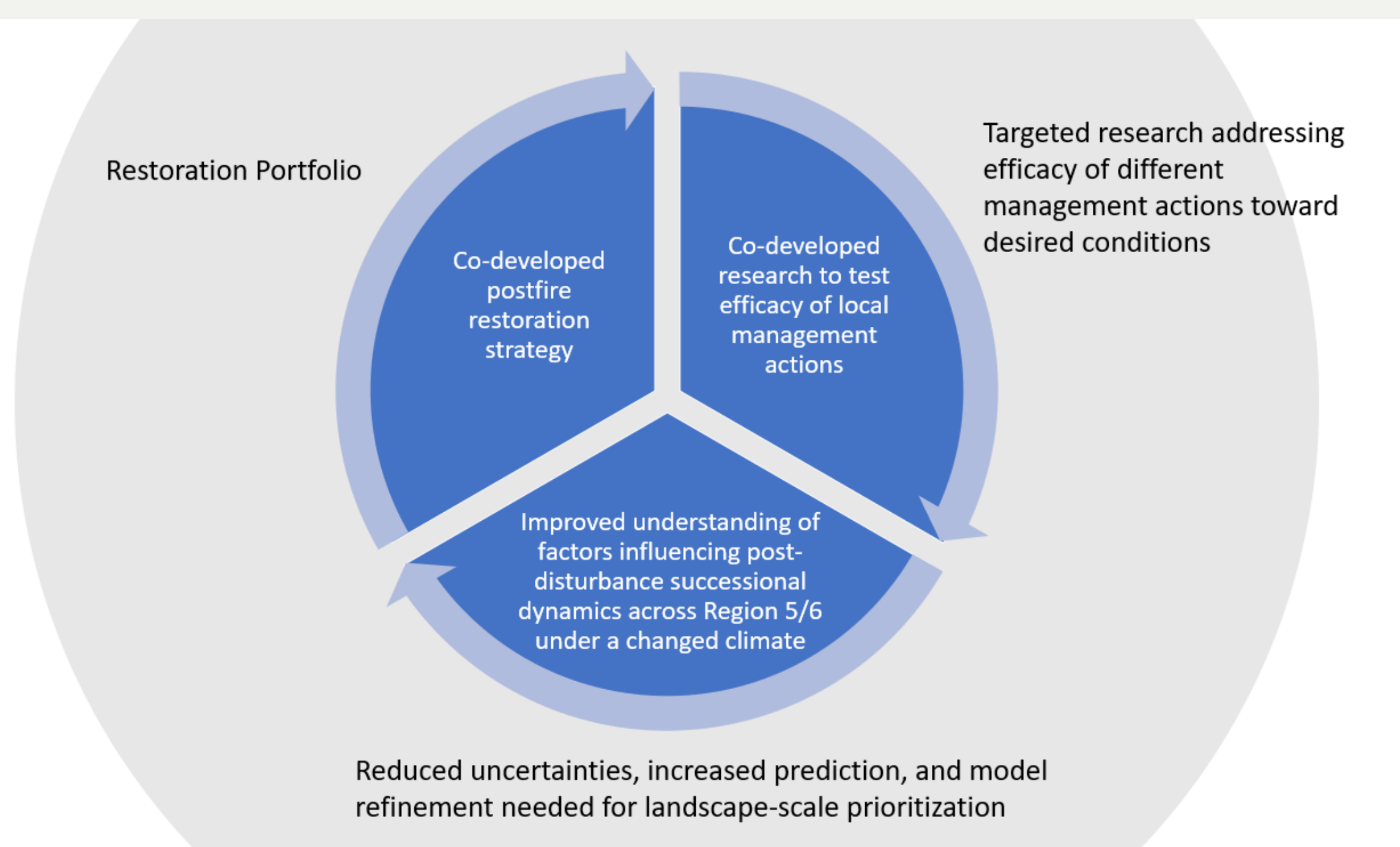
## Postfire Restoration Strategy



Merriam, K.E., Coppoletta, M., White, A.M., Collins, B.M. & Gross, S. 2021. Postfire restoration framework in: *Postfire Restoration Framework for National Forests in California*. Meyer, M.D., Long, J.W. & Safford, H.D. (Eds). Gen. Tech. Rep. PSW-GTR-270. Albany, CA: U.S. Department of Agriculture, Forest Service, Pacific Southwest Research Station.

The development of a restoration portfolio allows for **public engagement** in the postfire planning process, **increases transparency in decision making**, and **prioritizes actions** where they are most needed and feasible (and where new innovative approaches may be needed).

## Adaptive Management



Desired outcomes for this project are to (1) collaborate with managers to **prioritize management actions** where they are most needed through the development of a restoration portfolio that, (2) incorporate **research plans targeted to the restoration decisions**, and (3) improve an understanding of the **efficacy of different management actions to direct future landscape conditions** that can support functioning ecosystems.

## Forest Trajectories in a New Climate

### System-based Monitoring



Application of a consistent plot network is being used across fires to increase our understanding of the complex relationships between fire, management, ecological attributes, post-fire forest conditions, and future fire resiliency.

**This standardized design is being used across the west to quantify the rapid changes in understory dynamics following fire.**

## Collaborators & Partnering Forests

**National Forest Partners:** Okanogan-Wenatchee, Willamette, Umpqua, Six Rivers, Shasta-Trinity, Mendocino, Lassen, Plumas, Tahoe, Eldorado, Sierra

**Forest Service Research and Development:** Chris Armatas, Lee Cerveny, Stacy Drury, Becky Kerns, Matt Reilly, Alyssa Thomas, Gina Tarbill, Claire Tortorelli

