

Black Fire Recovery – Phase 1: A Condition-Based Management Approach

What Is It?

What Is Condition-Based Management?

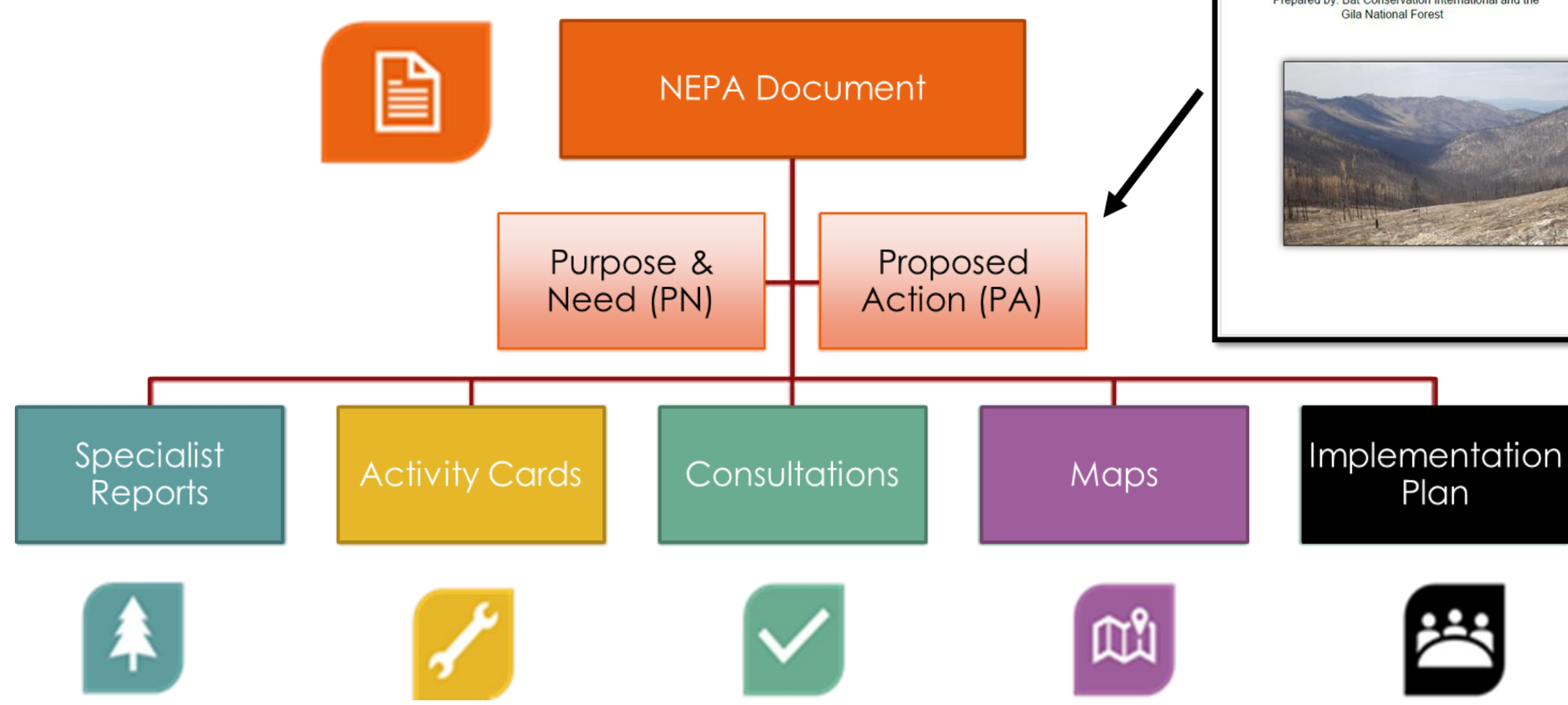
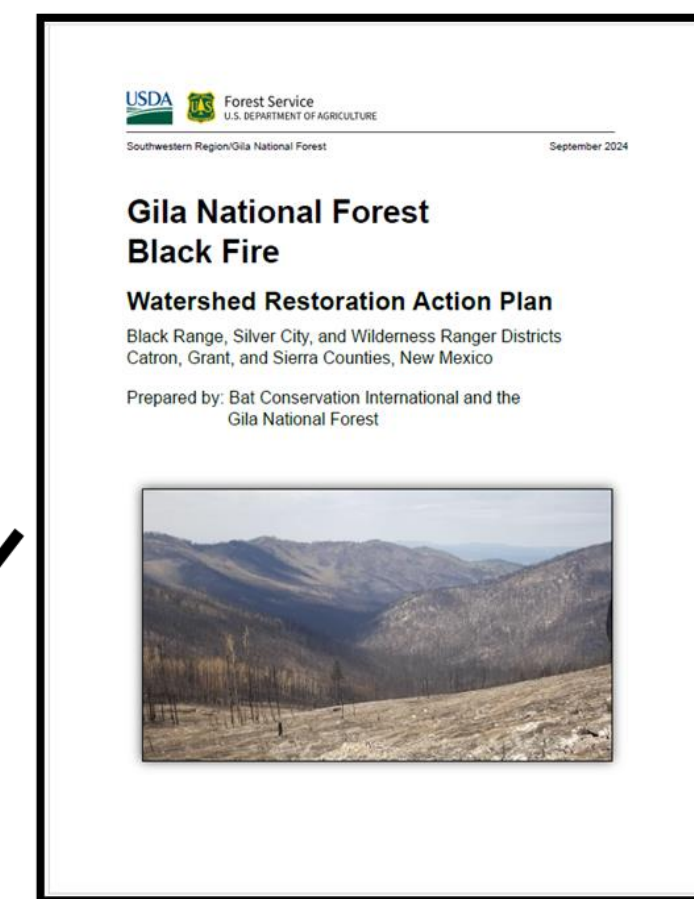
A system of management practices where an action is implemented on a conditional basis. Condition-based management (CBM) stems from the recognition that the environment is dynamic, changing as ecosystems respond to changing natural and human caused events.

In simple terms, CBM follows an 'If / Then' logic. If we see conditions A, B, or C, then we will implement actions X, Y, or Z. For example, if we see junipers encroaching into an area we want to maintain as a meadow, we will conduct hand thinning or mechanical treatment to remove the junipers. Or if we see areas where stream bank erosion is degrading water quality or fish habitat, we will conduct restoration to stabilize the bank and restore aquatic habitat.

Components of a Condition-Based Management Project

- Describe the rationale for using the CBM approach for the project in the Purpose and Need.
- Use best available site-specific data (ex. watershed restoration action plan).
- Define a range of treatment options or tools to use.
- Develop activity cards that specify the what, how, and restrictions to each treatment option.
- Map anticipated treatment areas.
- Analyze the impacts/effects from the anticipated treatments.
- Develop an implementation plan that outlines the steps from a decision to action on the ground.

Components of a Condition-Based Management Project – What Informs our Decision?



Why Is It Relevant?

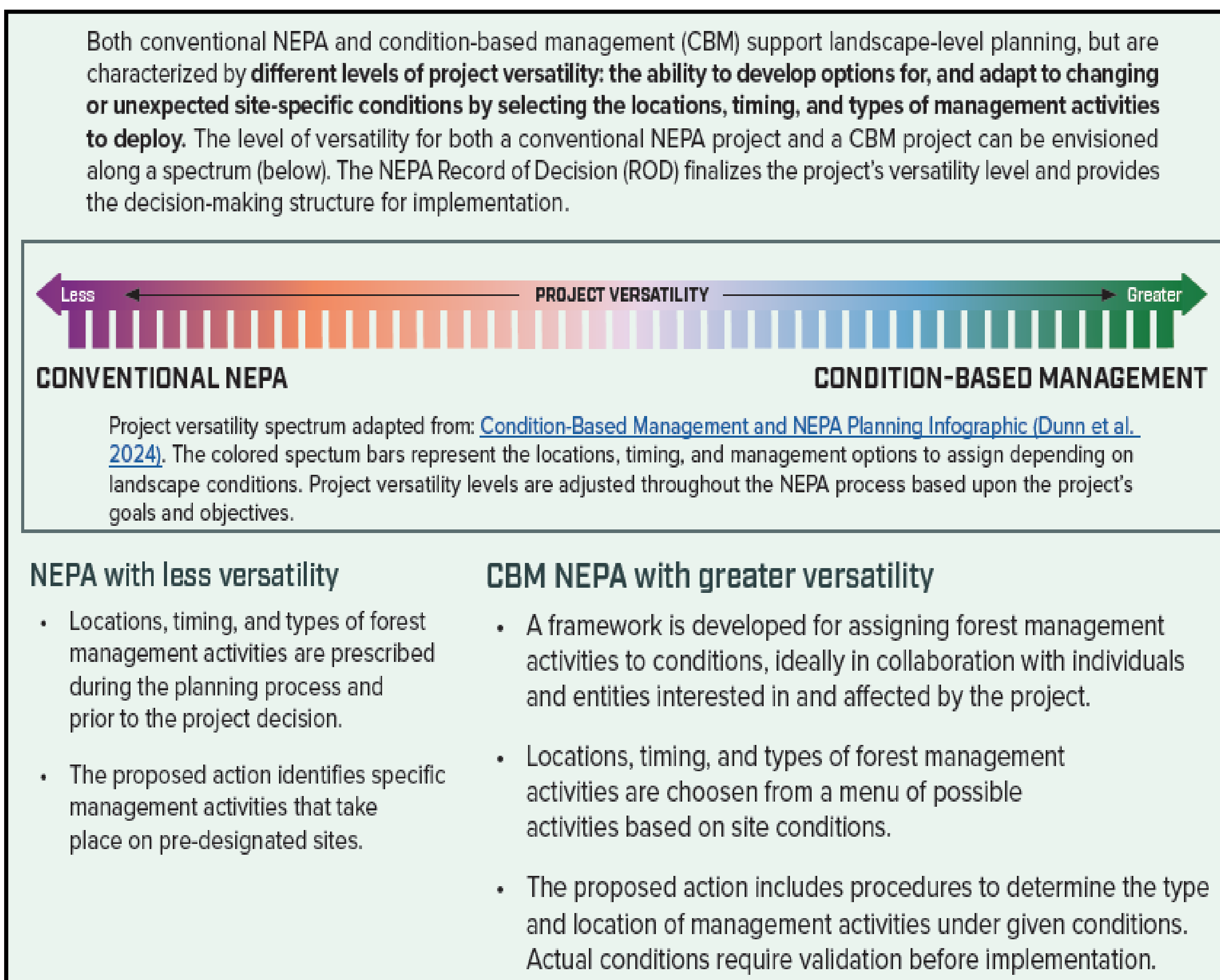
Why is Condition-Based Management Ideal for the Black Fire Recovery Planning?

The Black Fire of 2022 burned 327,263 acres over the eastern portion of the Gila National Forest and adjacent lands. Even just three years later, we are constantly seeing changes in the Black Fire area – fire killed trees continue to topple, stream channels continue to shift and down cut, and early successional plants are taking root. The Black Fire area will continue to change for many years.

We know there is a tremendous amount of restoration work needed to help the Black Fire area recover. The level of manpower and funding needed feels daunting. We fully recognize we may not be able to conduct work in many watersheds for years (decades?) to come. This drawn-out timeline and ever-changing environment add to the uncertainty in being able to analyze our proposed actions during the NEPA process. What seems like an appropriate treatment today for a given watershed may not be ideal years later when we are ready to implement an action.

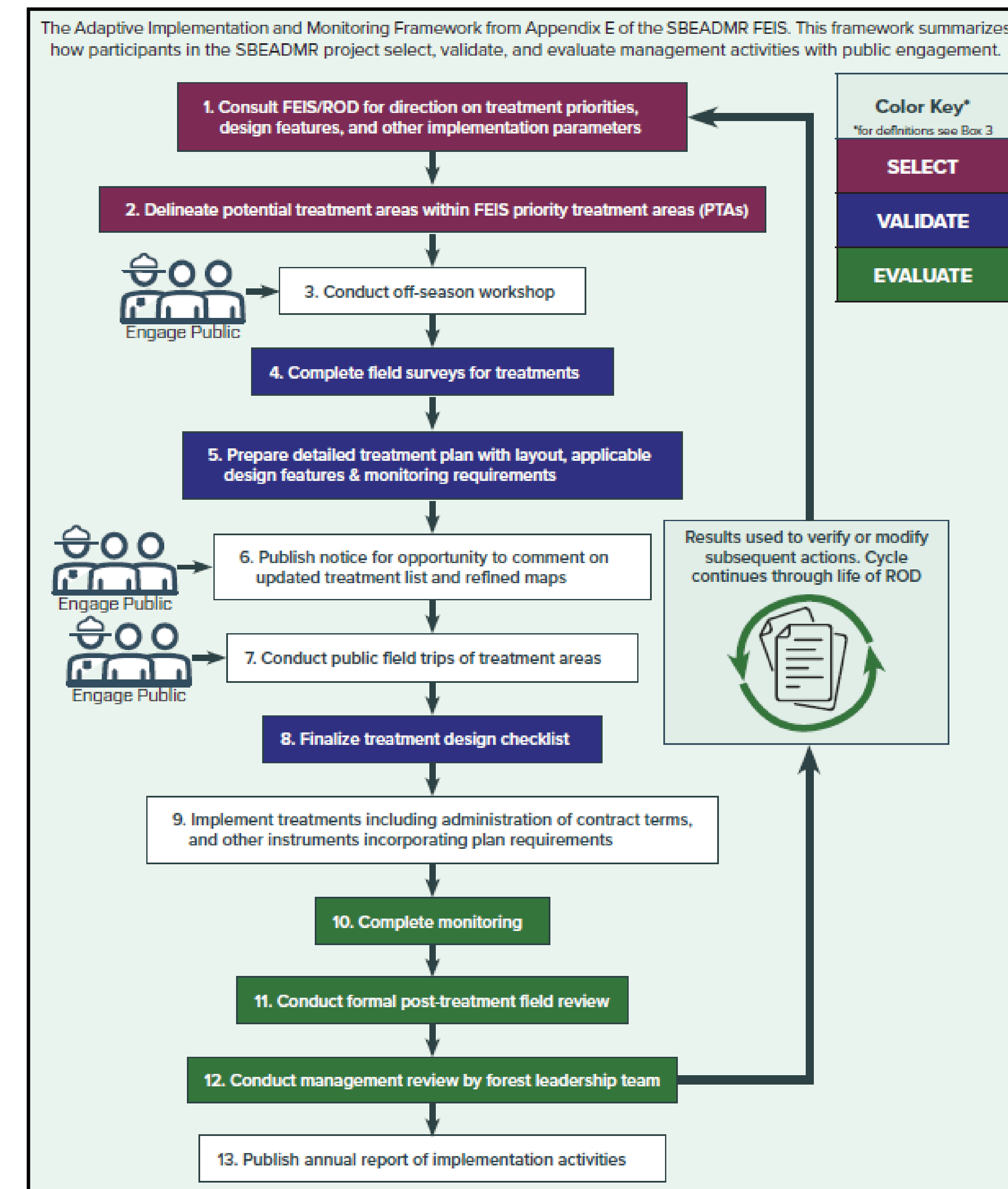
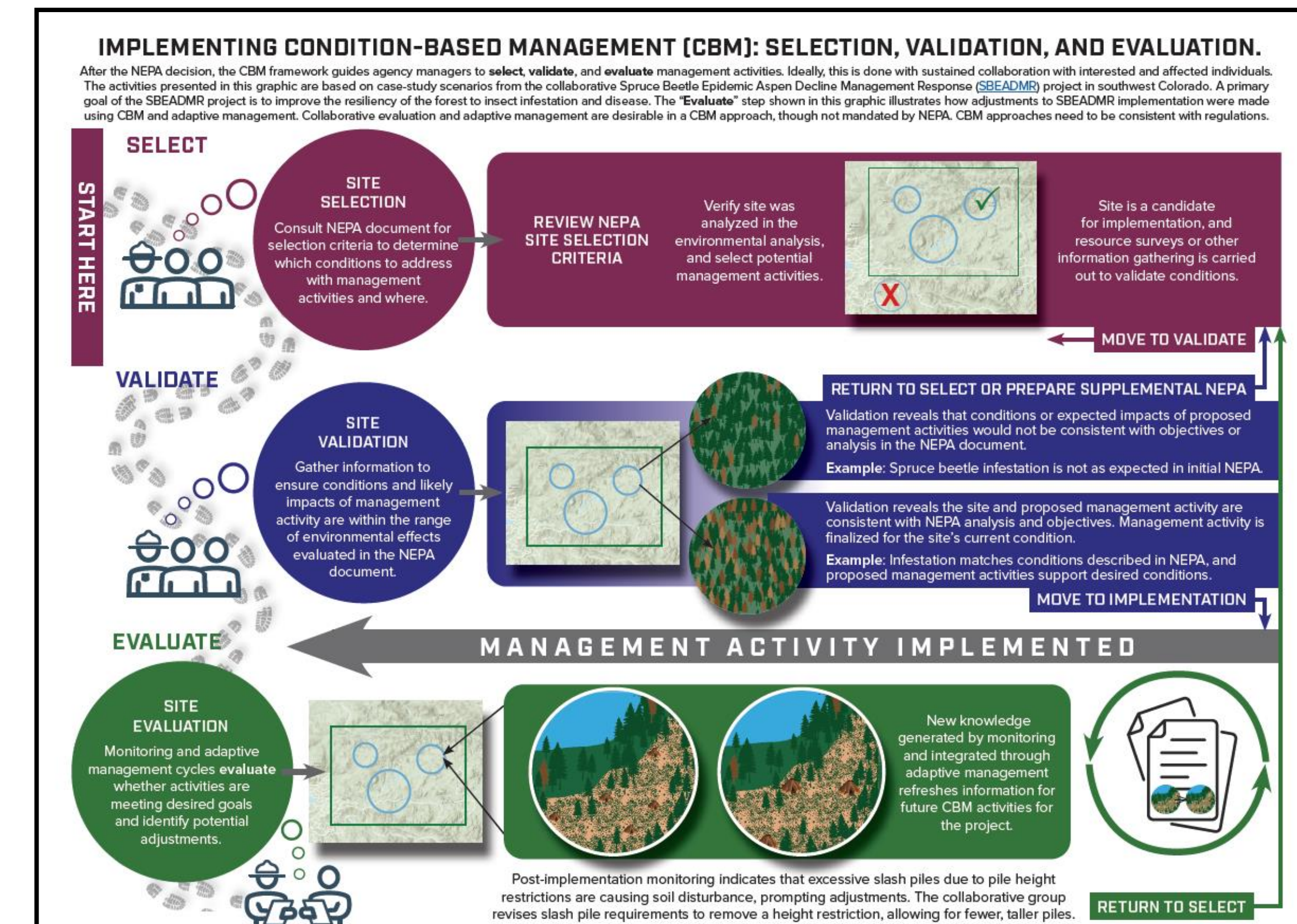
This is where the flexibility of CBM can benefit land managers. By approving a suite of tools to use, the Gila National Forest and its partners can apply the right tool(s) for the given conditions as each watershed is addressed. This is important because project surveys and implementation planning can take years to complete (especially for landscape-scale projects), and conditions may have changed by the time the agency is ready to implement activities on any particular part of the project area.

How does the Condition-Based NEPA Process Differ from the Conventional NEPA Approach?



How Is It Implemented?

Conceptual Diagram Outlining the Condition-Based Management Implementation Steps



The above two diagrams were adapted from: Dunn, J, Brown, HLC, and Cheng, AS (2024). NEPA and Condition-Based Management in Practice: A Framework and Case Study of the Spruce Beetle Epidemic and Aspen Decline Management Response in Southwest Colorado. Colorado Forest Restoration Institute. CFRI-2407.