CONDITION-BASED MANAGEMENT AND NEPA PLANNING

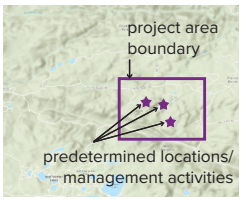
Both conventional NEPA* and condition-based management (CBM) support landscape-level planning, but are characterized by different levels of project versatility. Versatility is the ability to develop options for, and adapt to, changing or unexpected site-specific conditions by selecting the locations, timing, and types of management activities to deploy. NEPA project versatility, whether conventional or CBM, is determined on a spectrum during the NEPA process. On one end of the spectrum, conventional NEPA projects have less versatility. On the other end, NEPA using CBM can be more versatile.

Less — **PROJECT VERSATILITY** — Greater

CONVENTIONAL NEPA — **CONDITION-BASED MANAGEMENT**

NEPA STEPS

The colored bars represent the spectrum of locations, timing, and management options available to assign depending on landscape conditions, and adjustments to project versatility levels throughout the NEPA process.

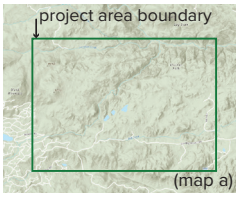


The agency identifies a project boundary, specific acres, and management activities within those designated acres to move the area from current conditions to desired conditions.

Public provides comments on the proposed project.

PROJECT PROPOSAL/ SCOPING

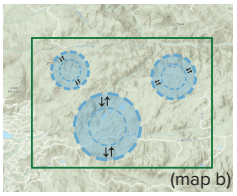
A project boundary map (map a) outlines potential locations for management activities based on conditions, rather than specific locations. CBM approaches define conditions under which locations and types of management activities are: **selected** for future implementation, **validated** to ensure impacts from activities on conditions are consistent with the effects analysis, and **evaluated** for adjustments**.** Public engagement can help clarify this approach.



The agency revises the proposed action and alternatives based on internal and public comments. The effects analysis focuses on the estimated environmental impacts of specific management activities in predetermined locations.

PROPOSED ACTION/ EFFECTS ANALYSIS

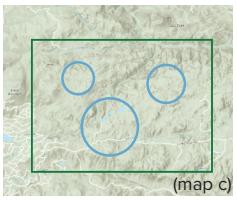
The agency revises the proposed action and alternatives based on internal and public comments. The proposed action includes the conditions under which the locations (map b) and the range of potential management options are to be **selected**, **validated**, and **evaluated**. The effects analysis uses available information to predict the likely impact of potential management options on the range of potential conditions. The location and activity are validated with updated site-specific information prior to implementing management activity.

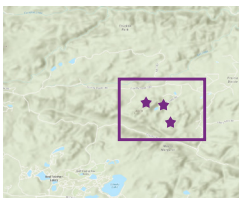


The signed decision prescribes specific management activities to take place on predetermined sites. (Note: The maroon bar's location on the versatility spectrum illustrates that conventional NEPA also allows small discretionary adjustments in response to changing or unexpected conditions).

DECISION

The signed decision finalizes the potential locations and range of potential management options for locations inside the project boundary (map c). It commits to post-decision site **selection** criteria, site **validation** procedures, and **evaluation** for necessary adjustments. Ideally, there should be sustained public engagement during each phase.

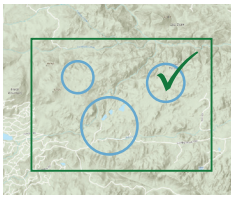




Predetermined management activities implemented in predetermined locations. Substantial new information, changed circumstances, or changes in management activities generally trigger NEPA supplementation.

IMPLEMENTATION

The pre-implementation process begins with **selecting** from available acres and types of management activities; site-specific conditions require **validation** prior to implementation. Once implemented, the management activities can be **evaluated** for necessary adjustments. Substantial new information, changed circumstances, or changes in management options generally trigger NEPA supplementation.



*This figure is not meant to include all components of NEPA, but highlights key differences in practice from CBM and conventional NEPA.

IMPLEMENTING CONDITION-BASED MANAGEMENT (CBM): SELECTION, VALIDATION, AND EVALUATION.

After the NEPA decision, the CBM framework guides agency managers to **select**, **validate**, and **evaluate** management activities. Ideally, this is done with sustained collaboration with interested and affected individuals. The activities presented in this graphic are based on case-study scenarios from the collaborative Spruce Beetle Epidemic Aspen Decline Management Response (SBEADMR) project in southwest Colorado. A primary goal of the SBEADMR project is to improve the resiliency of the forest to insect infestation and disease. The "**Evaluate**" step shown in this graphic illustrates how adjustments to SBEADMR implementation were made using CBM and adaptive management. Collaborative evaluation and adaptive management are desirable in a CBM approach, though not mandated by NEPA. CBM approaches need to be consistent with regulations.

START HERE

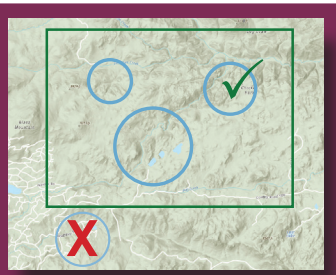
SELECT

SITE SELECTION

Consult NEPA document for selection criteria to determine which conditions to address with management activities and where.

REVIEW NEPA SITE SELECTION CRITERIA

Verify site was analyzed in the environmental analysis, and select potential management activities.



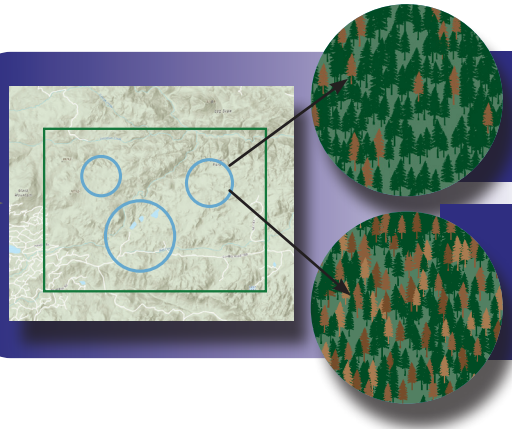
Site is a candidate for implementation, and resource surveys or other information gathering is carried out to validate conditions.

MOVE TO VALIDATE

VALIDATE

SITE VALIDATION

Gather information to ensure conditions and likely impacts of management activity are within the range of environmental effects evaluated in the NEPA document.



RETURN TO SELECT OR PREPARE SUPPLEMENTAL NEPA

Validation reveals that conditions or expected impacts of proposed management activities would not be consistent with objectives or analysis in the NEPA document.

Example: Spruce beetle infestation is not as expected in initial NEPA.

Validation reveals the site and proposed management activity are consistent with NEPA analysis and objectives. Management activity is finalized for the site's current condition.

Example: Infestation matches conditions described in NEPA, and proposed management activities support desired conditions.

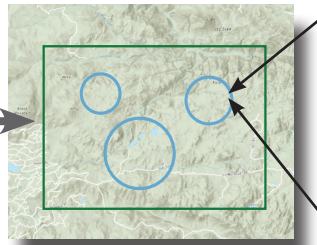
MOVE TO IMPLEMENTATION

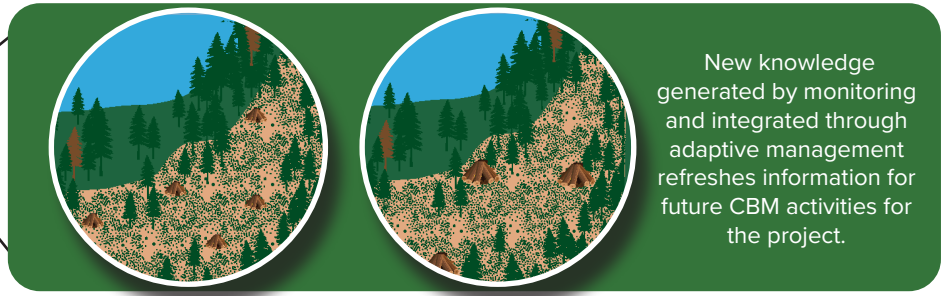
MANAGEMENT ACTIVITY IMPLEMENTED

EVALUATE

SITE EVALUATION

Monitoring and adaptive management cycles **evaluate** whether activities are meeting desired goals and identify potential adjustments.





New knowledge generated by monitoring and integrated through adaptive management refreshes information for future CBM activities for the project.

Post-implementation monitoring indicates that excessive slash piles due to pile height restrictions are causing soil disturbance, prompting adjustments. The collaborative group revises slash pile requirements to remove a height restriction, allowing for fewer, taller piles.

RETURN TO SELECT

COLORADO FOREST RESTORATION INSTITUTE
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