Okanogan-Wenatchee National Forest
Restoration Strategy

Introduction

There is an urgent need to restore the Okanogan-Wenatchee N.F. The forest is experiencing uncharacteristically severe fires, wildlife and fish habitat loss, hydrological problems, insect infestations and disease epidemics. These problems are partly the result of historical management actions, such as harvesting the largest trees, extinguishing all fires, and building roads in valley bottoms. Forest managers and scientists expect climate change impacts to make all of these problems even more pressing.

The Okanogan-Wenatchee N.F. needs to concentrate now on active, large-scale forest restoration to **make the forest resilient to disturbances, like fire, and to climate change impacts, like drought.** We also need to improve and reconnect wildlife habitats, and minimize the risk of flood damage to roads and bridges. We have set a goal of doubling the number of acres treated for restoration by 2020.

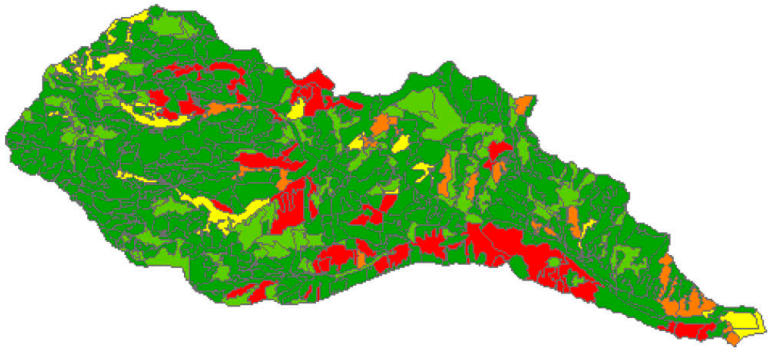
The Forest Restoration Strategy helps us meet our restoration goal and address all of these threats to forests, streams, fish, wildlife, and infrastructure. The Forest Restoration Strategy makes planning more efficient by **analyzing whole watersheds** to integrate considerations for fire, vegetation, wildlife, hydrology, aquatic habitat, and roads management.

The Strategy makes restoration projects more effective by using a scientific approach to target **overall priorities for multiple resources and compare current conditions** with historical and potential future conditions in a changing climate.

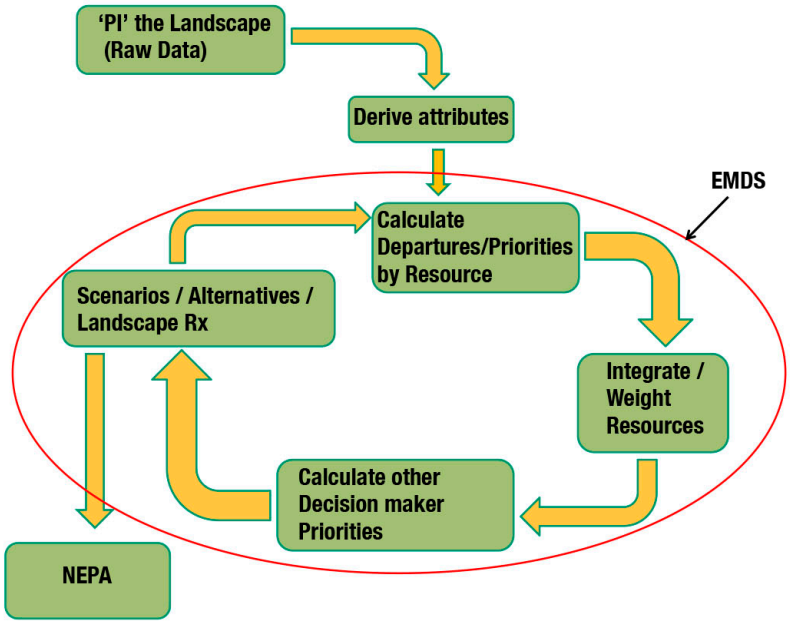
A team of scientists helped design, and provided tools for, the Strategy. Partners from state and nonprofit agencies are helping Forest Service managers implement restoration treatments.

The Process Overview

The restoration strategy utilizes an integrated, systematic process to evaluate whole landscapes prior to project planning. The current state of various resources (fire, insect and disease, vegetation, wildlife, and aquatics) is compared to reference conditions, a range of both historical and a future estimate. A decision support tool is used to integrate priorities for all resources and treatment priority areas are identified. Groups of priority areas are selected as the **Landscape Treatment Area**, alternative landscape treatment scenarios are developed, and project planning (NEPA) begins.



The Landscape Evaluation



Adaptive Management

The strategy relies on the concept of adaptive management to improve its implementation and effectiveness.

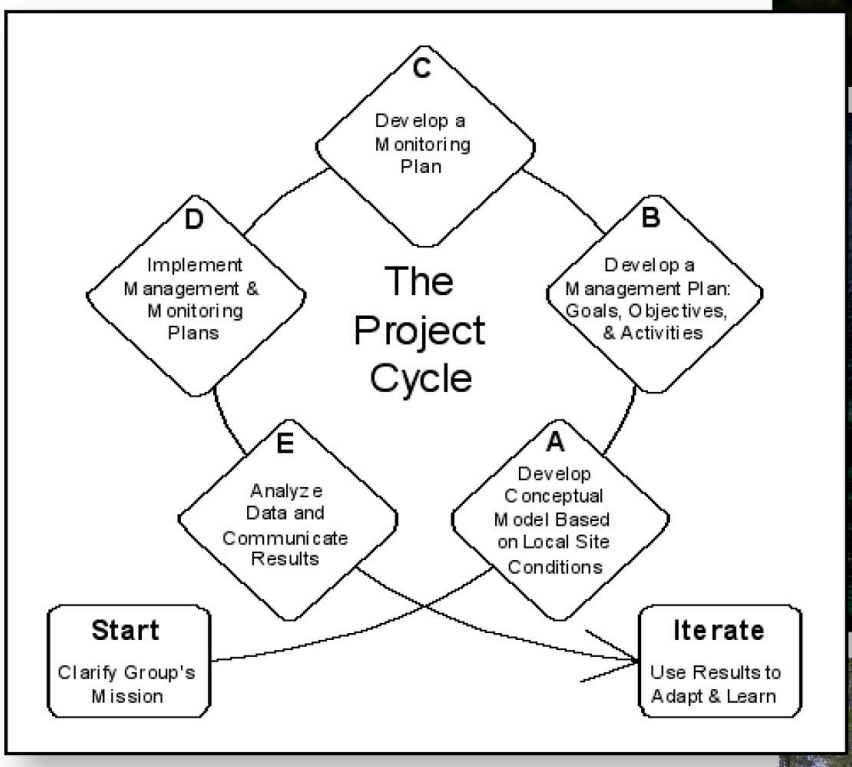
Adaptive management is a system of management practices that does three things:

Clearly identifies desired program outcomes

Monitoring to determine if actions lead to desired outcomes

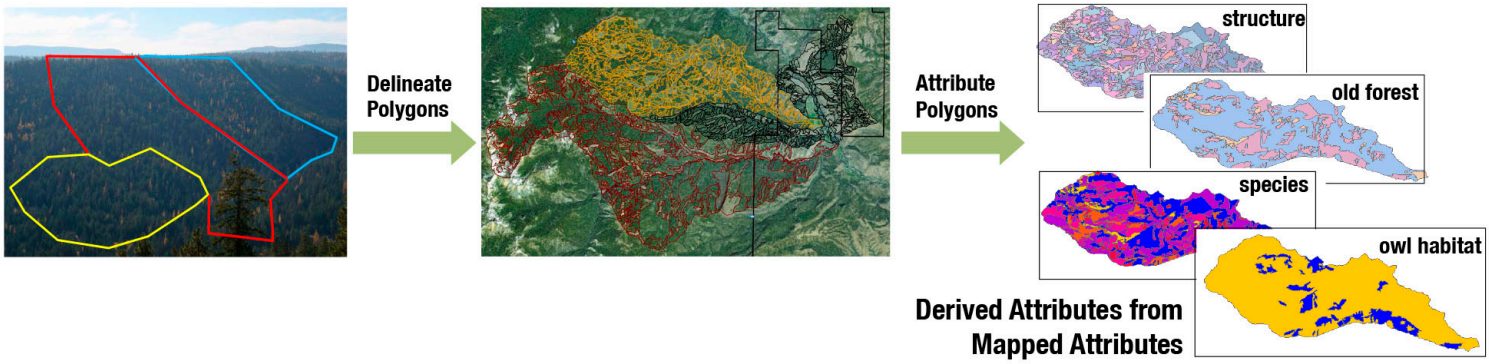
Facilitates management changes to ensure outcomes can be met or reevaluated

The restoration strategy emphasizes **integrated monitoring, frequent updates to strategy based monitoring results and management experience, and fostering collaborator involvement in resource management.**

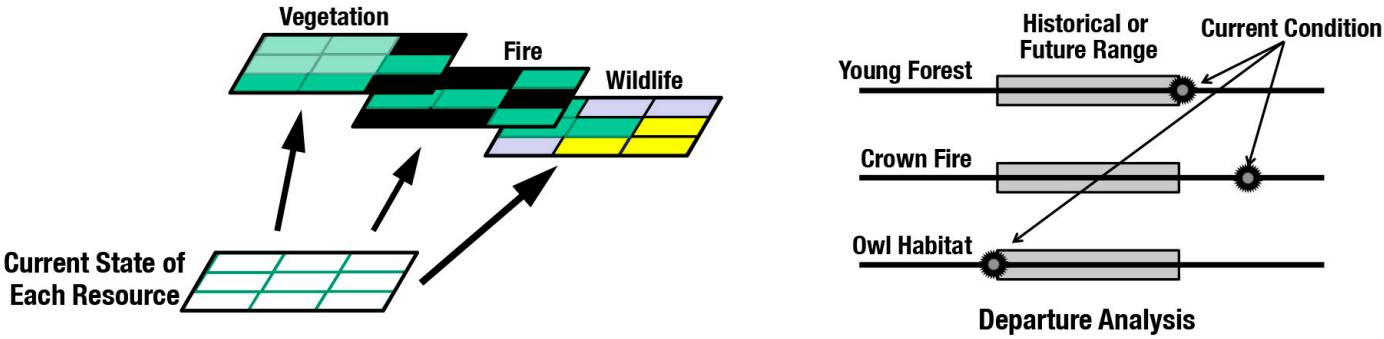


The Steps in the Process

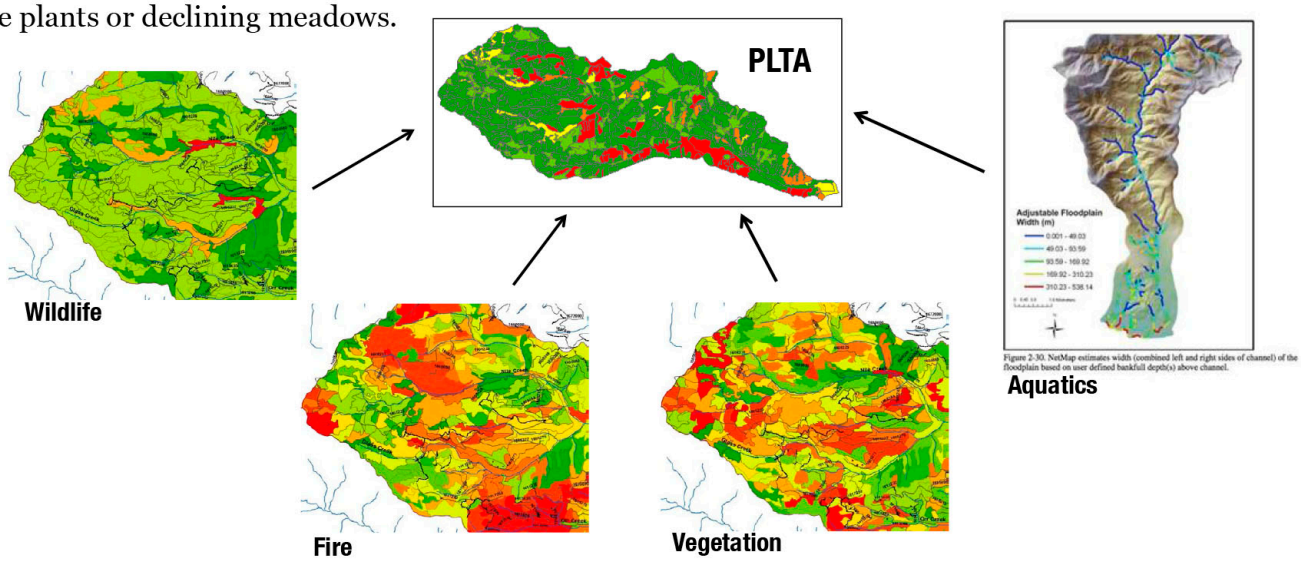
Photo Interpretation – District personnel analyze areas of 30,000 to 50,000 acres, looking at whole subwatersheds regardless of ownership. They delineate and interpret ecological features of landscape patches using current aerial photos in a GIS environment. From interpreted and derived attributes, we can analyze the arrangement and quantity of forest structure, wildlife habitat, and fire and insect risk.



Landscape Evaluation – We use Ecosystem Management Decision Support (EMDS) software to compare current forest conditions with a range of historical conditions and potential future conditions (given climate change). EMDS considers interactions and trade-offs and prioritizes patches in which restoration treatments should have the greatest benefit, increasing resiliency for multiple resources (vegetation, wildlife, fish, and aquatics).



Potential Landscape Treatment Areas (PLTAs) – PLTAs are areas that have many high priority patches for multiple resources. These areas offer opportunities to do restoration activities at a scale sufficient to influence the subwatershed's resilience. Each Landscape Evaluation yields several PLTAs. For each PLTA we design a landscape prescription, which can yield multiple projects. When the interdisciplinary team chooses project areas within the PLTA and begins the traditional NEPA process, the landscape prescription forms the basis for the Purpose and Need and Proposed Action. Projects may also address issues not considered in Landscape Evaluations, such as invasive plants or declining meadows.



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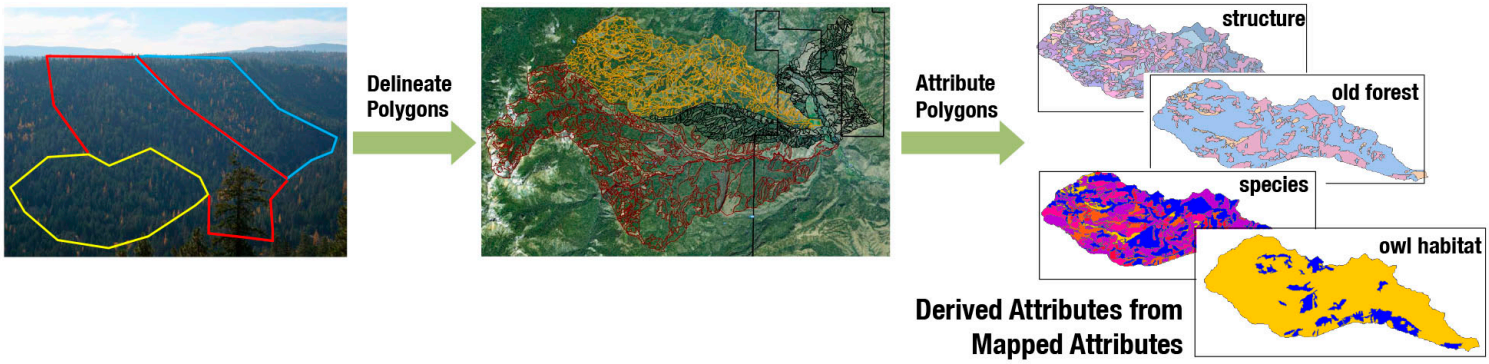

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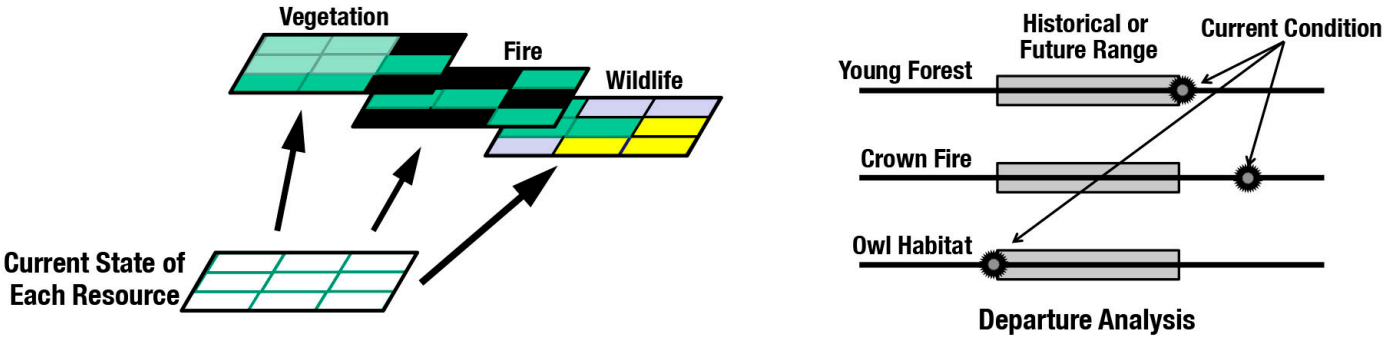

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