Objectives

• Policy overview
• What does it look like?
• Barriers to implementation
• CFLR
• Key points to consider
Healthy Forest Initiative

• Healthy Forest Restoration Act
Ecological Restoration

• Collaborative Forest Landscape Restoration Program (CFLR)
Policy

- Secretary of Agriculture
- SEATTLE, August 14, 2009 - Agriculture Secretary Tom Vilsack today outlined his vision for the future of our nation's forests.
  - "Our nation's forestlands, both public and private, are environmental and economic assets that are in critical need of restoration and conservation," said Vilsack. "By using a collaborative management approach with a heavy focus on restoring these natural resources, we can make our forests more resilient to climate change, protect water resources, and improve forest health while creating jobs and opportunities."
  - "Declining forest health and the effects of our changing climate have resulted in an increasing number of catastrophic wildfires and insect outbreaks," said Vilsack. "It is time for a change in the way we view and manage America's forestlands with an eye towards the future."
Addressing Climate Change Adaptation: Think Big!

Forest Service Chief Tom Tidwell
Adapting to Climate Change in the National Forests: A Workshop for Managers
Stevenson, WA—April 20, 2010

Climate Change Adaptation
The Forest Service is responding to climate change through ecological restoration—by restoring the functions and processes characteristic of healthy, resilient ecosystems. By restoration, I do not mean returning to the past, but rather learning from the past as we look toward a future that, in many places and many respects, will be very different from today.
Interim Directive No.: 2020-2010-1
Effective Date: March 3, 2010

2020.2 – Objective

The aim is to reestablish and retain ecological resilience of National Forest System lands and associated resources to achieve sustainable management and provide a broad range of ecosystem services. Healthy, resilient landscapes will have greater capacity to survive natural disturbances and large scale threats to sustainability, especially under changing and uncertain future environmental conditions, such as those driven by climate change and increasing human uses.
2020.45 – Forest and Grassland Supervisors

Forest and Grassland supervisors are responsible for:

1. Implementing forest and grassland programs consistent with national and regional policy for ecological restoration.

2. Establishing management direction and policy to ensure ecological restoration is considered and integrated, as appropriate, into forest and grassland programs and is also included in the Land Management Plan.

3. Coordinating with other Federal agencies; State, county, and Tribal governments; private industry, and the public when planning and implementing ecological restoration programs.
2020.6 – Principles

Apply the following guiding principles when planning and implementing restoration projects:

1. **Ecosystems are dynamic and change is inevitable.**

2. **Public involvement and consultation with Indian Tribes** is important in setting objectives for restoration.

3. **Knowledge of past and current ecosystem dynamics, current and desired conditions**, climate change projections, and human uses is fundamental to planning restoration activities.

4. **Adaptive management**, monitoring, and evaluation are essential to ecological restoration.
Definition

Ecological restoration.
The process of assisting the recovery of resilience and adaptive capacity of ecosystems that have been degraded, damaged, or destroyed. Restoration focuses on establishing the composition, structure, pattern, and ecological processes necessary to make terrestrial and aquatic ecosystems sustainable, resilient, and healthy under current and future conditions.
Regional Forester
Ecological Restoration
USDA Forest Service, Pacific Southwest Region
04/16/2010
Communication Themes for Region 5 Ecological Restoration
Everything we do that affects the ecosystem is driven by and is consistent with restoration needs

• We are focusing our work on restoration actions so that all forests and wildlands are better able to adjust and thrive in the face of climate change and large scale disturbances such as fire, drought and insect and disease attacks.

• All plans, projects, and activities conducted in the Region that affect the ecosystem will be consistent with and driven by restoration needs.

• Our restoration efforts are not something new; we are highlighting and placing more emphasis on these efforts.
Our goal is to pick up the pace and scale of restoration work

• Our current pace of restoration work needs to be accelerated to mitigate ecological threats and disturbances such as wildfires, insects, diseases, climate change impacts, etc.

• One objective is to increase the removal of fuels that can feed a wildfire to 500,000 acres per year – this includes the use of mechanical equipment, prescribed fire, and wildfires managed to benefit the ecosystem.

• Another objective is to increase other restoration actions such as meadow improvement, controlling invasive species, road maintenance and decommissioning, etc.
We are exploring new ways to fund restoration work

• We recognize that current budgets do not provide enough funds to achieve the desired increased pace and scale of restoration work.
• We are looking for alternative ways to fund restoration work.
• We are exploring ways to increase our investment in restoration work by increasing the benefits citizens will receive from national forest such as improved delivery of clean water, recreation, biodiversity, wood, etc.
We will focus our restoration efforts at the large landscape scale

• We will include neighboring lands in restoration work regardless of boundary lines.
• We will work with partners to accomplish work across ownership boundaries in an “all lands” restoration approach.
What does Ecological Restoration look like in the Klamath Mountains?
Resources/Collaborators

- Researchers
- Fire Safe Councils
- Tribes (TEK)
- Historical photos
- Fire Ecologists/Forest Ecologists
- Vegetation Mapping
- Fire Modeling
- Regulatory Agencies
Weislander Vegetation Type Mapping
Where are the Oaks?

Eddy_LSR
Wieslander Vegetation Type Map
Non-conifer types

17% non-conifer

Eddy_LSR
2004 CALVEG Vegetation Type Map
Non-conifer types

4% Hardwood/Shrub/Herb

Note: clipped to extent of VTM coverage
Historical Natural Fire Regimes

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<th>Code</th>
<th>Description</th>
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<tr>
<td>I</td>
<td>0–35-year frequency (^a), low and mixed severity (^b)</td>
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<tr>
<td>II</td>
<td>0–35-year frequency, stand-replacement severity</td>
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<tr>
<td>III</td>
<td>35–100+ year frequency, low and mixed severity</td>
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<tr>
<td>IV</td>
<td>35–100+ year frequency, stand-replacement severity</td>
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<tr>
<td>V</td>
<td>200+ year frequency, stand-replacement severity</td>
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</table>

\(^a\) Fire frequency is the average number of years between fires.

\(^b\) Severity is the effect of the fire on the dominant overstory vegetation.

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<th>Historic FRI</th>
<th>Acres</th>
<th>Percent of Area</th>
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<td>90</td>
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<td>&gt;20 and ≤ 35</td>
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<td>&gt;65 and ≤ 100</td>
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Fire Regime Condition Class Vegetation Structure (Common Trends and Opportunities on KNF)

Ponderosa Pine Mixed Conifer SN_PIPO_MCON

Current Acres

Reference Acres

Departure Acres

A
B
C
D
E
U

Early Seral
Mid - Closed
Mid - Open
Late - Open
Late - Closed

Acres
Arcfuels

- Uses same Fire and Vegetation Models
  - FVS, FLAMMAP, ETC.
- Makes all these models spatial and adds GIS component
  - Valuable for ID team process
  - Can be used to spatially look at restoration opportunities and identify values
    - Stand level to landscape level
Typical Dry Site historic OG conditions for the majority of KNF

Typical mesic historic OG conditions on the KNF
A summary of current trends and probable future trends in climate and climate-driven processes for the Klamath National Forest and surrounding lands

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Barriers to Implementation of open stand types

• Klamath Forest Plan
• Northwest Forest Plan
• Riparian cover (water waivers and TMDLs)
• LSR’s and Critical Habitat
• NSO Recovery plan
• Air Quality Standards
Collaborative Forest Landscape Restoration Program

• Klamath River Community Protection and Restoration Project
  – Thom Seider
  – HCFP Phase II
  – Johnny O
  – Two Bit
  – HCFP 03
Collaborative Forest Landscape Restoration Program

• Upper South Fork Salmon
  – Eddy LSR
  – Petersburg
  – South Taylor
  – Long Gibson
  – USF road sediment reduction
Key Points to consider

• Restoration is the central driver to all vegetation management activities
• We need to increase the scale and intensity of our treatments
• We need to craft a “Restoration Alternative” for our vegetation management projects