



Forest Service  
U.S. DEPARTMENT OF AGRICULTURE

# Mature and Old-Growth Forests: Partnerships for Success

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Fulfilling Executive Order 14072

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# Overview

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Executive Order 14072



Partnerships That Supported the Effort



Lessons Learned

# My Role



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What do you think of when you hear the term  
“old-growth forest”?

# Mature and Old-Growth Forest Context



Old growth is a condition, not a place

Mature and old-growth forests look dramatically different from coast-to-coast, state by state, and locally. For instance, old-growth sequoias in California can be thousands of years old and upwards of 250 feet tall with a 30-foot or greater trunk diameter, while an old-growth stand of dwarf pitch pine in New Jersey can include trees that are hundreds of years old, roughly 14 feet tall and only several inches in diameter.

These differences underscore the complexity of management.

# Old-Growth Forest Values

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- Cultural and social values
- Sense of place
- Biodiversity
- Carbon storage
- Recreation
- Economic
- Food provision
- Aesthetic



# Executive Order 14072

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Executive Order (EO) 14072: Strengthening the Nation's Forests, Communities, and Local Economies – instructed the U.S. Department of the Interior, Bureau of Land Management (BLM) and U.S. Department of Agriculture (USDA), Forest Service to implement a set of actions focused on the health of the Nation's forests.

*Signed by President Biden on April 22, 2022*

- Section 2(b): ...**define, identify, and complete an inventory of old-growth and mature forests on Federal lands**, accounting for regional and ecological variations, as appropriate, and shall make such inventory publicly available.
- Section 2(c)(ii): ...**analyze the threats to mature and old-growth forests on Federal lands**, including from wildfires and climate change.
- Section 2(c)(iii): ...**develop policies**, with robust opportunity for public comment, to institutionalize climate-smart management and conservation strategies **that address threats to mature and old-growth forests on Federal lands**.

## Executive Order 14072

April 2022

*Secretaries of the Interior and Agriculture*

## Mature and Old-Growth Forest Definition, Identification, and Initial Inventory

April 2024

*Bureau of Land Management and Forest Service*

## Analysis of Threats to Mature and Old-Growth Forests

June 2024 (est.)

*Bureau of Land Management and Forest Service*

## Implement Change

Adapt policies and actions to protect, conserve, and manage national forests and grasslands for climate resilience

## Continuous Engagement

Engagement sessions, Tribal consultation, and public comment on future management actions related to climate change (Advance Notice of Proposed Rulemaking, April 20, 2023)

## Evaluate Feedback

Review Tribal, public, and employee feedback



# Outcomes To Date

## Mature and Old-Growth Forests: Definition, Identification, and Initial Inventory on Lands Managed by the Forest Service and Bureau of Land Management in Fulfillment of Section 2(b) of Executive Order No. 14072



### Overview

Executive Order (EO) 14072—*Strengthening the Nation's Forests, Communities, and Local Economies*—instructed the U.S. Department of the Interior, Bureau of Land Management (BLM) and U.S. Department of Agriculture (USDA), Forest Service to implement a set of actions focused on the health of the Nation's forests. Section 2.c.(ii) directed the agencies to analyze the threats to mature and old-growth forests on Federal lands, including from wildfires and climate change. To fulfill this direction, the agencies are creating a full report that will be available in early 2024. This introductory report summarizes initial key findings.

As recognized in section 1 of EO 14072, old-growth forests have decreased significantly from what existed historically. Understanding what threatens mature and old-growth forests is imperative to conserving and managing these forests and protecting their ecological, social, cultural, and economic value.

### What Constitutes a Threat?

For this analysis, shaped by technical experts and feedback from the public, a threat is defined as a current or projected disturbance or stressor that may contribute to the enduring loss or degradation of the characteristic conditions, functions, or values of existing mature and old-growth forests. Disturbances resulting in a decline in the abundance of mature and old-growth forests, or enduring loss of conditions, functions, or values were considered negative outcomes, and are thus threats. Disturbances that resulted in neutral or beneficial outcomes, such as no change in abundance, or an increase in abundance of mature and old-growth forests, were not considered threats.

### Defining Mature and Old Growth

According to the Mature Forest Narrative Framework, mature forests are delineated ecologically as the stage of forest development immediately before old growth. The mature stage of stand development generally begins when a forest stand moves beyond self-thinning, starts to diversify in height and structure, and/or the understory begins to reinitiate. Structural characteristics that mark the transition from an immature to mature forest are unique to each forest type; they may include but are not limited to: abundance of large trees, large tree stem diameter, stem diameter diversity, horizontal canopy openings or patchiness, aboveground biomass accumulation, stand height, presence of standing and/or downed boles, vertical canopy layers, or a combination of these attributes.

Mature and old-growth forests come in all shapes and sizes and can often be abundant. Mature and old-growth forests offer biological diversity, carbon sequestration, wildlife and fisheries habitat, recreation, aesthetics, soil productivity, and clean water. These special forests also reflect diverse Tribal, social, and cultural values.

### Key Findings

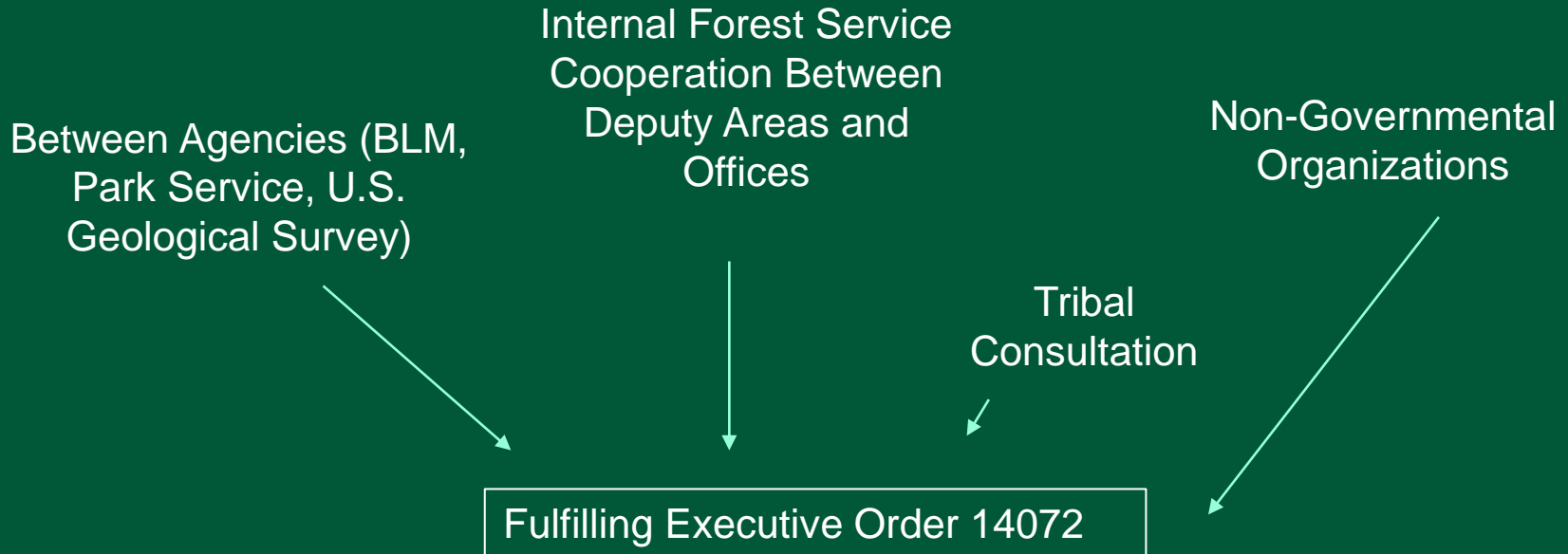
The initial threat analysis found that mature and old-growth forests have high exposure to a variety of threats and climate and disturbance projections show this exposure will likely increase. Currently, wildfire, exacerbated by climate change and fire exclusion, is the leading threat to mature and old-growth forests, followed by insects and disease. Tree cutting (any removal of trees) is currently a relatively minor threat despite having been a major disturbance historically. The analysis also found that two thirds of mature forests



Overwhelmed?

Where would you  
start engaging  
partnerships in this  
effort?

# Many Partnerships Supported Success



# Supporting Partnerships and Agreements

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## Scoping and Social Interactions

- Tribal Roundtables
- National Forest Foundation internal scoping
- Society of American Foresters science summit
- The Nature Conservancy external scoping

## Staffing and Internal Support

- Forest Service regional office support
- Internal staffing
- Management and Engineering Technologies International (METI)

## Analysis and Technical Support

- Forest Service Geospatial Technology and Applications Center
- NatureServe habitat suitability modeling
- The Nature Conservancy technical support
- Braiding Sweetgrass Report (Indigenous Knowledge – Western Science integration)
- Blue Mountains Forest Partners – mortality analysis in old-growth forest stands
- NASA Global Ecosystem Dynamics Investigation (GEDI)
- Airborne LIDAR (remote sensing)

# Correlations From Coursework

Maintained an environment of trust through communication

Utilized strengths of partners

Results built step by step

Collaboration

Commitment

Diplomacy

Entrepreneurship

Influencing/negotiation

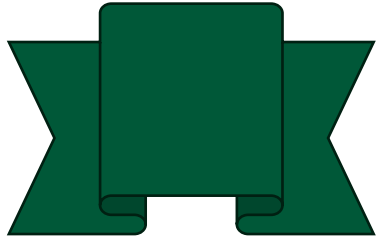
Political savvy



# Lessons Learned

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- Decision framework (large decisions)
  - Roles and responsibilities
  - Shared understanding of a common purpose
  - Respected the right to disagree
- Decision framework (small decisions)
  - Lack of understanding the review process and culture of other agencies
  - Unrealistic timeline
  - Gathering and synthesizing feedback and comments
  - Lack of team-building



# Takeaways

## Evolution of the Process

Representation

Importance of Feedback  
Loops

Opportunity to Build on  
Existing Partnerships

Use other efforts and  
models

- What should the evolution look like?
- Factor in ways to continuously improve
- Need options for selection

# Takeaways

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Evolution of the Process

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Opportunity to Build on  
Existing Partnerships

Use other efforts and  
models

- Indigenous Knowledge and Western Science
- Not all have the same role, all have a roll
- Equity across collaborations



# Takeaways

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Evolution of the Process

Representation

Importance of Feedback  
Loops

Opportunity to Build on  
Existing Partnerships

Use other efforts and  
models

- Many of different lengths
- Continued communication, continued listening

# Takeaways

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Evolution of the Process

Representation

Importance of Feedback  
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Opportunity to Build on  
Existing Partnerships

Use other efforts and  
models

- Build up not out

# Takeaways

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Evolution of the Process

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Importance of Feedback  
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Opportunity to Build on  
Existing Partnerships

Use other efforts and  
models

- Collaborative Forest Landscape Restoration Program (CFLRP)
- Northwest Forest Plan



What's Next



What else do you see?

Questions and Comments?



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