McDonald & Dunn Forest Management Planning Process

Spring 2022 – End of 2024

Community Input Session Agenda

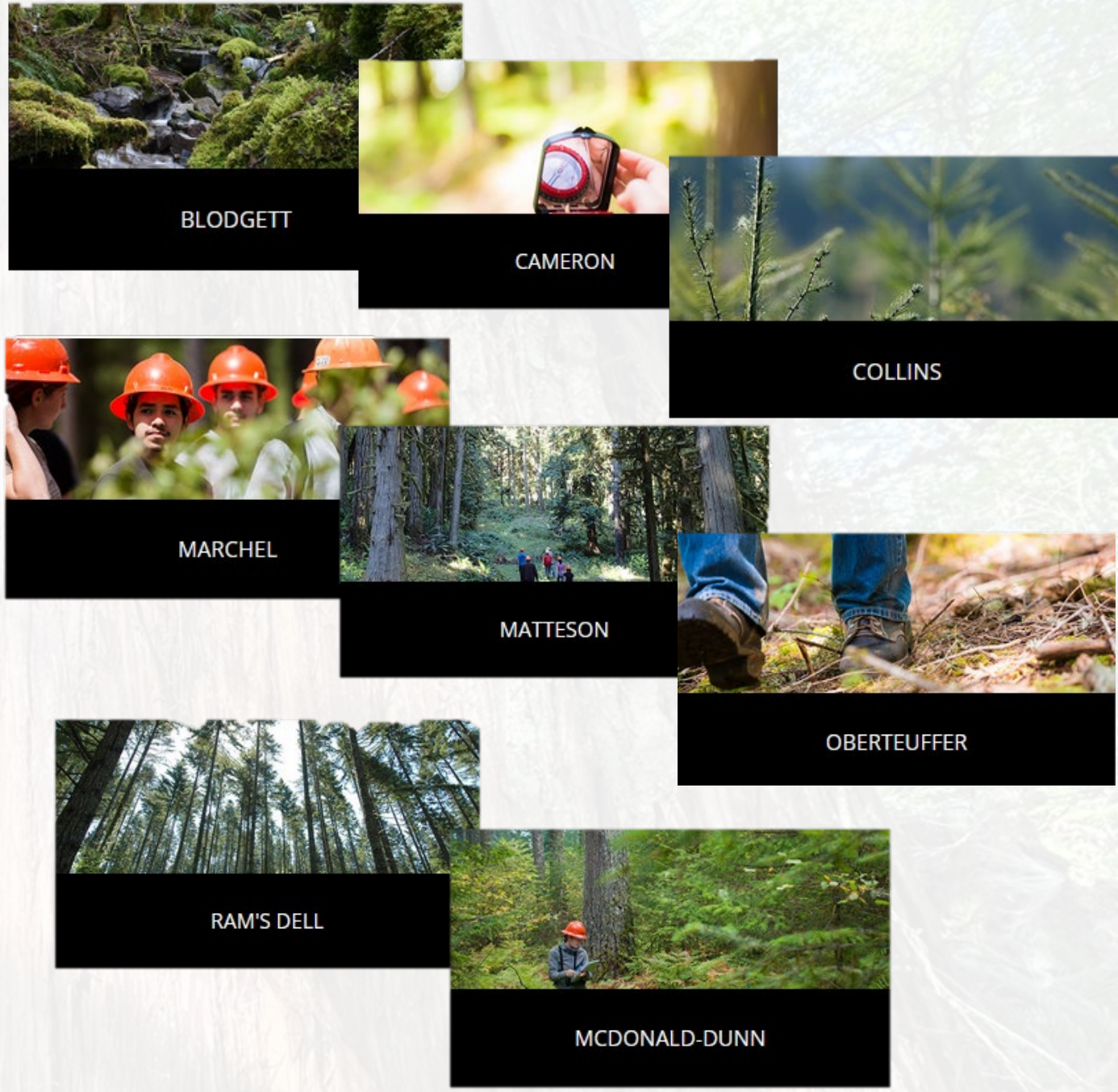
- 6:00-6:10pm – Introduction, agenda review, & ground rules (Turner O’Dell)
- 6:10-6:40pm – Formal presentation (Holly Ober)
- 6:40-7:00pm – Clarifying questions about the scenarios or modeling
- 7:00-8:00pm – Participant input

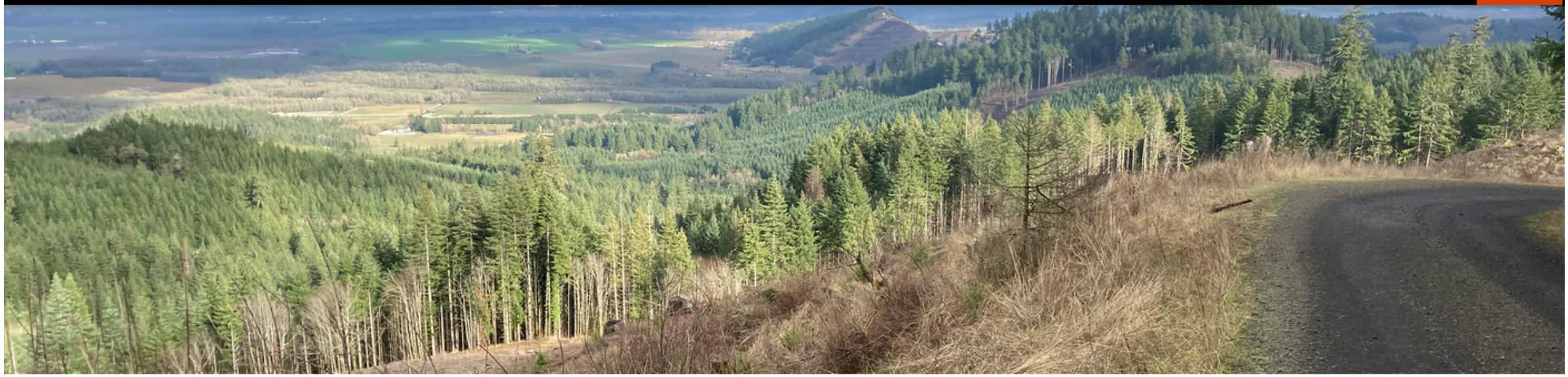
Community Input Session Ground Rules

- Speak up – participate and share ideas (that's why we are here!)
- Make room – for others to do the same (keep within established time limits)
- Listen with respect – seek to learn and understand each other's perspectives
- Be civil – OK to be tough on issues, not on people – no personal attacks
- Accept that you may disagree – but try to disagree without being disagreeable
- Silence cell phones, etc.

OSU College of Forestry Research Forests

- 9 forest tracts across the state
- Provide unique opportunities available to few other colleges
  - Research – living laboratories for discovery
  - Teaching – outdoor classroom for learning and skill development
  - Extension/Outreach – extensive sites for real-world demonstration and training
- McDonald Forest + Dunn Forest = 11,500 acres in Corvallis
  - Management plan was developed in 2005
  - We are now creating a new plan





MCDONALD-DUNN RESEARCH FOREST PLANNING PROCESS

The OSU College of Forestry is developing a new management plan for the McDonald and Dunn Research Forests, which is anticipated to be ready for implementation in 2025. The new research forest plan will reflect the college's diverse values, and will position the McDonald-Dunn Research Forest to be a model example of multiple value forest management. Management decisions and activities on the McDonald-Dunn Research Forest will be driven by research agendas, education and demonstration opportunities, and considerations of an inclusive balance of forest uses and values. The full intent of the research forests is described in the Vision, Mission, and Goals.

The plan is being crafted with input from diverse voices. Two committees, comprised of 23 individuals total, have been providing input throughout the planning process. One group, the **Stakeholder Advisory Committee (SAC)** is made up of individuals external to the university with representation from Tribal natural resource managers, state and local agencies, NGOs, private industry, and forest neighbors, and another group, the **Faculty Planning Committee (FPC),** has representation from 5 academic departments across OSU, providing expertise on all aspects of forest management. Members of the Stakeholder Advisory Committee and Faculty Planning Committee

Research forest staff are not members of the SAC or FPC, but are involved in discussions as needed, as technical resources. They serve in an ex-officio capacity.

The dean of the College of Forestry will make all final decisions regarding the new research forest management plan.

Once a plan has been adopted, a Research Forest Technical Advisory Committee will be formed. This committee will provide an avenue for research forest staff to seek guidance on various forest management issues that arise during the implementation of the new forest plan, review annual reports, consider exceptions to land allocation designations, and work with the dean to appoint additional committees and task forces as needed.

The process of developing the new management plan will involve opportunities for public input, including two Community Listening Sessions to gather information on aspirations and concerns of forest users early in the planning process, two Community Input Sessions to gather input on forest land allocation decisions late in the planning process, a webform through which written comments can be provided, and an email to which written questions can be sent. We usually respond within 14 days.

UPCOMING MEETINGS & EVENTS

- Oct. 28, 2024, 6:00 - 8:00 pm, Community Input Session, PFSC 117 or Zoom
  Zoom link: https://oregonstate.zoom.us/j/99445344415?pwd=YKRnxrITYIfmM7U1cfQygG83rnwUEp.1
- Nov. 4, 2024, 11:00 am - 12:00 pm, Faculty Planning Committee Meeting (open to the public to listen remotely through Zoom but not comment; video recording will be posted online after the meeting)
  Zoom link: https://oregonstate.zoom.us/j/96048847825?pwd=buAr23oOG7OAVBCuJ4QPNAbT5QYp8H.1

PAST MEETINGS & EVENTS

Stakeholder Advisory Committee (SAC): This committee engages a broad and diverse array of voices and perspectives in the planning process. The primary role of the SAC is to provide recommendations regarding the balance of forest uses, values and management practices and helps to ensure that broader stakeholder and public input is understood and reflected. SAC members are requested to share concerns and aspirations regarding the management of the forests to contribute to community expectations being understood by College of Forestry leaders and will be reflected in the alternative scenarios to be developed and evaluated during the management planning process. The SAC is not a decision-making body, but will work in tandem with the FPC to inform the development of a new management plan that will ultimately be reviewed and approved by the College of Forestry Executive Committee and Dean.

- Oct. 24, 2024, SAC Meeting (agenda, presentation, video recording)
- Sept 25, 2024, SAC Meeting (agenda, presentation, video recording)
- June 3, 2024, SAC Meeting (agenda, presentation, video recording)
- Jan. 30, 2024, SAC Meeting (agenda, presentation)
- Apr. 13, 2023, SAC Meeting (agenda, presentation 1, presentation 2, video recording, meeting summary)
- Mar. 27, 2023, SAC and FPC Joint Field Tour
- Mar. 1, 2023, SAC Meeting (agenda, presentation, video recording, meeting summary)
- Feb. 25, 2023, SAC and FPC Joint Field Tour
- Jan. 18, 2023, SAC Meeting (agenda, presentation, video recording, meeting summary)
- Dec. 13, 2022, SAC Meeting (agenda, video recording, meeting summary)
- Dec. 5, 2022, SAC Meeting (agenda, presentation, video recording, meeting summary)
- Sept. 20, 2022, SAC Meeting (agenda, presentation, video recording, meeting summary)
- Aug 30, 2022, SAC Meeting (agenda, presentation, meeting summary)
- June 14, 2022, SAC and FPC Joint Kickoff Meeting (agenda, video, meeting summary)

Faculty Planning Committee (FPC): This committee provides technical input related to the forest management plan. Members will help develop the new draft plan, independently assess modeled management scenarios, review various portions of the draft plan, help contribute to public input being evaluated and considered in the forest management planning process, and provide input on the implementation approach and communication strategies for long-term engagement and accountability.

- Oct. 18, 2024, FPC Meeting (agenda, presentation, video recording)
- Oct. 3, 2024, FPC Meeting (agenda, presentation, video recording)
- Sept 16, 2024, FPC Meeting (agenda, presentation, video recording, meeting summary)
- May 30, 2024, FPC Meeting (agenda, presentation, video recording, meeting summary)
- Feb. 22, 2024, FPC Meeting (agenda, presentation, video recording, meeting summary)
- Jan. 25, 2024, FPC Meeting (agenda, presentation, video recording, meeting summary)
- Dec. 12, 2023, FPC meeting (agenda, presentation, video recording, meeting summary)
- Nov. 28, 2023, FPC meeting (agenda, presentation, video recording, meeting summary)
- Nov. 14, 2023, FPC meeting (agenda, presentation, video recording, meeting summary)
- Oct. 31, 2023, FPC meeting (agenda, presentation, video recording, meeting summary)
- Oct. 17, 2023, FPC meeting (agenda, presentation, video recording, meeting summary)
- June 12, 2023, FPC Meeting (agenda, presentation, video recording, meeting summary)
- May 1, 2023, FPC Meeting (agenda, presentation, video recording, meeting summary)
- Apr. 17, 2023, FPC Meeting (agenda, presentation, video recording, meeting summary)
- Mar. 27, 2023, SAC and FPC Joint Field Tour
- Mar. 20, 2023, FPC Meeting (agenda, presentation, video recording, meeting summary)
- Mar. 6, 2023, FPC Meeting (agenda, presentation, video recording, meeting summary)
- Feb. 25, 2023, SAC and FPC Joint Field Tour
- Feb. 20, 2023, FPC Meeting (agenda, presentation, video recording, meeting summary)
- Feb. 6, 2023, FPC Meeting (agenda, presentation, video recording, meeting summary)
- Jan. 23, 2023, FPC Meeting (agenda, presentation, video recording, meeting summary)
- Dec. 20, 2022, FPC Meeting (agenda, presentation, video recording, meeting summary)
- Dec. 6, 2022, FPC Meeting (agenda, presentation, video recording, meeting summary) - Remarks made by an individual during the Dec. 6 Faculty Planning Committee meeting do not reflect the values of the university or the College of Forestry, or our shared commitment to respectful discussion and engagement. The College appreciates all input being provided in planning the future of the McDonald-Dunn Research Forests and is committed to listening to and considering all perspectives with respect. An apology for these remarks was made during the Stakeholder Advisory Committee meeting on Dec 13.
- Nov. 22, 2022, FPC Meeting (agenda, presentation, video recording, meeting summary)
- Oct. 25, 2022, FPC Meeting (agenda, presentation, video recording, meeting summary)
- Oct. 11, 2022, FPC Meeting (agenda, presentation, video recording, meeting summary)
- Sept. 16, 2022, FPC Meeting (agenda, presentation, meeting summary)
- June 14, 2022, SAC and FPC Joint Kickoff Meeting (agenda, video, meeting summary)

Community Input and Listening Sessions

- June 5, 2024, Community Input Session (presentation, video recording, additional material) - *Thank you for your comments and feedback at the Community Input Session. A Q&A including the questions received during the session is available here.*
- Mar. 21 & 22, 2023, Academic User Listening Sessions (open forums)
- Nov. 7, 2022, Community Listening Session (agenda, presentation, video recording, meeting summary)
- Aug. 31, 2022, Community Listening Session (agenda, presentation, meeting summary)

SUBMIT YOUR COMMENTS
SUBMIT YOUR QUESTIONS
STAY CONNECTED
READ PUBLIC COMMENTS
HISTORIC DOCUMENTS - MCDONALD-DUNN RESEARCH FOREST PLANNING 2004-PRESENT
FAQ ABOUT THE RESEARCH FORESTS

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McDonald-Dunn Research Forest Management Planning Process

Phase I: Information gathering, Discussions, Assessment of former FMP (Spring – Summer 2022)

Initial Interviews	Inventory of CoF Academic Use	Community Listening Session I	Stakeholder Advisory Committee (SAC) Meetings	Faculty Planning Committee (FPC) Meetings	Comment / Question Submission

Phase II: Synthesizing, Modeling, Writing, Refining (Fall 2022 – Fall 2024)

Stakeholder Advisory Committee (SAC) Meetings	Faculty Planning Committee (FPC) Meetings	Community Listening Session II	Academic User Listening Session	Community Input Sessions I & II	Comment / Question Submission

Phase III: Finalizing (End of 2024)

Draft to FPC for review	Draft to SAC for review	Draft to public for review	Draft to Dean & Forestry Executive Committee for review	Forest management plan approval by Dean

McDonald-Dunn Forest Planning Committees

Faculty Planning Committee

- 9 individuals internal to OSU from 5 academic departments
- Wide range of expertise (fire ecology, hydrology, forest policy, forest economics, aquatic ecology, avian ecology, wood products, recreation, silviculture)
- Provide technical expertise; serve in a decision-making capacity
- Have met 25 times… over 50 hours of meeting time

Stakeholder Advisory Committee

- 13 individuals external to OSU, with representation from Tribal natural resource managers, state and local agencies, NGOs, private industry, and forest neighbors
- Provide input and recommendations; serve in an advisory capacity
- Have met 11 times… over 30 hours of meeting time

Anticipated Steps

The intent of a Forest Plan:

Thoughtful documentation of past and current forest conditions, desired future conditions, and a roadmap/timeline to get there

What conditions do we want to create on the McDonald-Dunn Forest?

Oregon State University
College of Forestry

College Research Forests Vision, Mission, and Goals

Oregon State University and the College of Forestry are stewards of nine separate tracts of land around the state. This document articulates the collective vision, mission, and goals for the College of Forestry's Research Forests. It reflects how we value our forests, and the benefits we wish to derive from them, now and in the future. Just as college and unit strategic plans are reflections of OSU's strategic priorities, individual forest management and tactical plans will strive to meet the goals in this document to ensure the Research Forests achieve their vision and mission.

Vision:

The OSU Research Forests aspire to be globally recognized as a model for an actively and sustainably managed forest system that supports the college's desire to advance forestry through scientific inquiry, education, and the application of new knowledge to inform best practices of forest management.

Mission:

- To create opportunities for education, research, and outreach to address the economic, social, and environmental values of current and future generations of Oregonians and beyond.
- To demonstrate how an actively and sustainably managed forest fosters economic prosperity, biodiversity conservation, and resilience amidst disturbances and global change.
- To support social and cultural values of forests, enhancing the wellbeing of local communities, Tribal communities, and our broader citizenship.

Goals:

Learning, Discovery, Engagement - Provide students, teachers, researchers and the general public diverse opportunities for learning, discovery, and engagement related to forest ecosystems and management for multiple resource values.

Stewardship - Demonstrate sound forest stewardship principles that address the challenge of balancing the need for productive forests, diverse plant and wildlife communities, healthy aquatic ecosystems, carbon storage potential, recreation opportunities, and other resource values.

Research - Provide long- and short-term opportunities for student and faculty research, citizen science, and the sharing of research findings.

Resilient Forests - Promote resilience to the effects of a changing climate, invasive species, insect pests, pathogens, wildfire, urban encroachment, and other disturbances.

Working Demonstration Forest - Demonstrate contemporary and innovative aspects of an active and sustainably managed forest, based on the best available science and technology.

Recreation - Provide safe, diverse, and inclusive recreation opportunities that build forest connections and contribute to community well-being.

Community Connections - Establish, maintain, and enhance relationships and communication with neighbors, the broader community, and all those connected with the Research Forests.

Financial Sustainability - Provide revenue that sustains Research Forest operations and supports the College of Forestry's education, research, and outreach mission now and in the future.

Accountability - Demonstrate a commitment to transparent governance of OSU's Research Forest properties focused on achieving the stated vision, mission, and goals.

Continuous Improvement - Demonstrate a commitment to continuous improvement in the management and stewardship of the Research Forests based on adaptive management principles.

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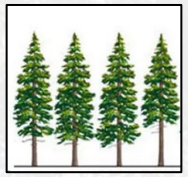
The Basics of a Forest Management Plan

Components

- Site description (geography, soils, vegetation communities, wildlife & fish, cultural resources, history)
- Goals and objectives
- Management activities/prescriptions
- Description of areas and resources needing special consideration
- Projections (growth and yield)
- Monitoring efforts

5 ‘Forest Management Strategies’ for the new plan

A. Even-aged, short rotation 

B. Even-aged, long rotation 

C. Multi-aged, multi-species 

D. Managed reserves 

E. Ecosystems of concern (oak woodlands, meadows, riparian) 

McDonald-Dunn Research Forests draft guidelines for each new 'Management Strategy'

	 Even-aged short rotation	 Even-aged long rotation	 Multi-aged multi-species	 Managed reserves	 Ecosystems of concern
Guiding Principles	*Manage in a way that creates learning and research opportunities about short-rotation forestry and early seral conditions, under the principle of financial sustainability, informed by both Indigenous knowledge and Western science.*	*Manage in a way that creates learning and research opportunities about long-rotation forestry and retention of legacy elements throughout the life of each stand, informed by both Indigenous knowledge and Western science.*	*Manage in a way that creates learning and research opportunities about managing multi-aged and/or multi-species stands, informed by both Indigenous knowledge and Western science.*	*Manage in a way that ensures learning and research opportunities about the creation and maintenance of historical late-seral forest conditions informed by both Indigenous knowledge and Western science.*	*Manage in a way that creates learning and research opportunities about a range of restoration opportunities and intensities to improve and maintain the health and resiliency of selected ecosystems, informed by both Indigenous knowledge and Western science.*
Brief Summary	Even-aged plantations of Douglas-fir (or other climatic-appropriate species and genetic stock) will be established and managed to be financially competitive by maximizing yields of wood products valuable for domestic mills. Clearcut harvests will not exceed 80 acres (with limited exceptions due to large-scale disturbances). Rotation lengths will be regulated primarily by age that maximizes net revenue production. ~5% of hardwood trees and/or resprouts will be identified and purposely left free to grow in the understory. Rotations will be 30-60, likely 35-45 years.	Even-aged forests of Douglas-fir (or other climatic-appropriate species and genetic stock) will be established and managed to provide older forest conditions and produce high quality wood for domestic mills. Clearcut harvests will not exceed 40 acres (with limited exceptions due to largescale disturbances). ~10% of hardwood trees and/or resprouts will be identified and purposed left free to grow in the understory throughout the rotation. Rotations typically will be 60-90 years, with <10% managed to 120 years.	Multi-aged, mixed-species forests of primarily Douglas-fir will be established and managed using shelterwood-with residuals, group-selection, and variable retention regeneration harvests to create heterogeneity in openings, regenerate new age classes of trees, and maintain structural diversity and visual aesthetics. Multiple native tree species will be encouraged. These harvests will not exceed 40 acres. <u>*Shelterwood-with-residuals*</u> - Final harvest of understory trees will be 60-70 years. The age of the oldest trees harvested from these stands will be 60-120 years, regulated primarily by the complexity of habitat desired for each stand. <u>*Group-selection*</u> - Re-entry harvest will occur every 15-30 years to create 3-4 age classes. Minimum proximity of group selection openings to previous harvest entries will be >200 feet. <u>*Variable retention harvest*</u> – Re-entry harvest will occur every 15-30 years to create 3-4 age classes.	These areas will be held and conserved outside the management base using only a light touch when needed to promote and maintain historical older-forest structural and compositional diversity, visual aesthetics, and provide for public safety. Forest succession and developmental processes following natural disturbances will proceed with little human intervention. Areas added to the existing reserve base may need more active operations to promote the development of historical conditions. The age of the oldest trees in these stands will continue to increase over time adding to the age-class diversity across the forest.	Restoration and maintenance activities will be undertaken in native oak savanna/woodlands, meadows, and riparian/aquatic systems. Two strategies will be employed: • retain and conserve the most at-risk and highest value components of ecological and cultural diversity, and • use intensive efforts where needed to improve and restore broader ecological and/or cultural functions at specific sites. The age of the oldest trees in oak ecosystems will tend to increase over time. For riparian ecosystems, tree age will increase for long-lived conifers but for alders and other short-lived species, tree age may decrease as they achieve senescence and die.

Modeling is being used to make decisions regarding land allocations during the forest planning process

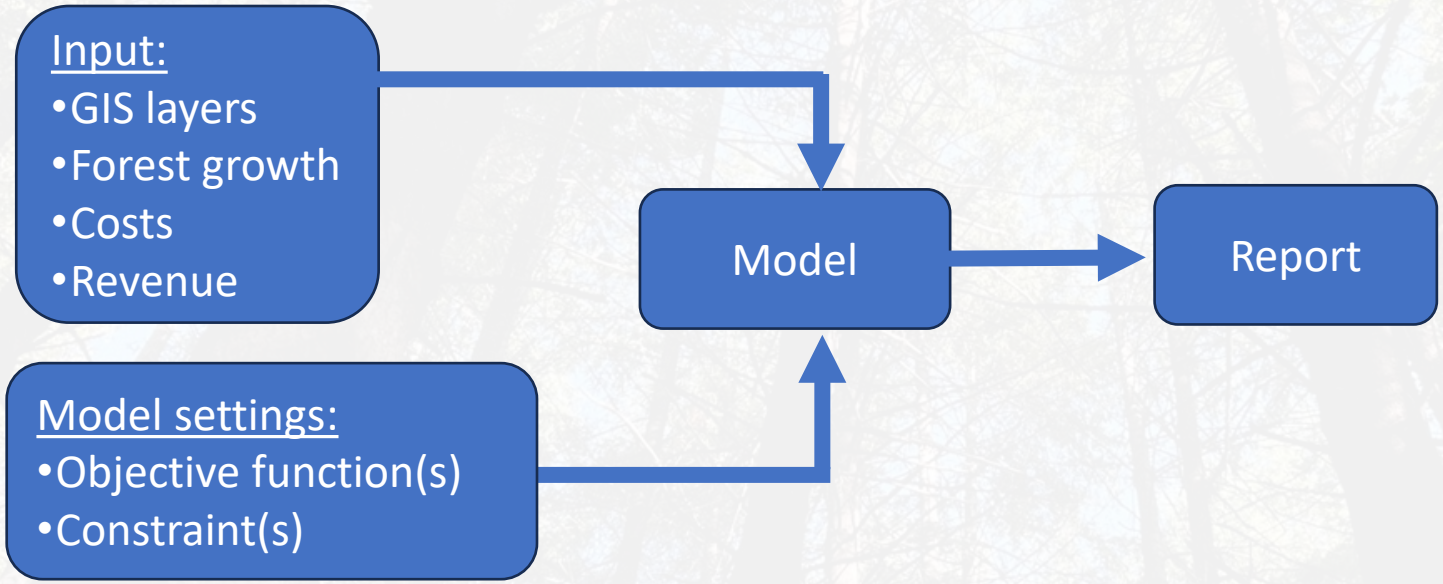
The intent of a Forest Plan:

Thoughtful documentation of past and current forest conditions,

desired future conditions, and a roadmap/timeline to get there

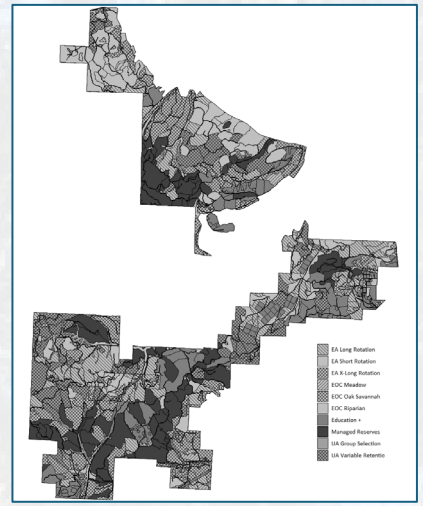
The basics of harvest schedule modeling

- Mathematical planning tools assist in determining when to manage each forest stand [Woodstock]



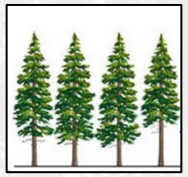
- The model attempts to find “optimal” solutions by assigning stands to management strategies

The McDonald-Dunn Forest is complex



- The McDonald-Dunn Forest is comprised of 386 stands
- There are 11 silvicultural options
  - Even-aged (short, long, extra-long rotations)
  - Uneven-aged (group selection, individual-tree selection, two-storied, variable retention)
  - Other (oak savanna, meadow, riparian, managed reserve)
- All costs associated with management and maintenance must be accounted for
  - Harvest, site prep, planting, interplanting, chemical release, subsequent thinning
  - Must consider type of harvest, as dictated by slope (e.g., ground, cable)
  - Also, many fixed costs associated with maintaining the forest
- There are ~90 stands devoted to long-standing research that cannot be compromised
- The model makes hundreds of thousands of decisions so we can understand the ramifications of land allocation decisions

5 ‘Forest Management Strategies’ for the new plan

A. Even-aged, short rotation 

B. Even-aged, long rotation 

C. Multi-aged, multi-species 

D. Managed reserves 

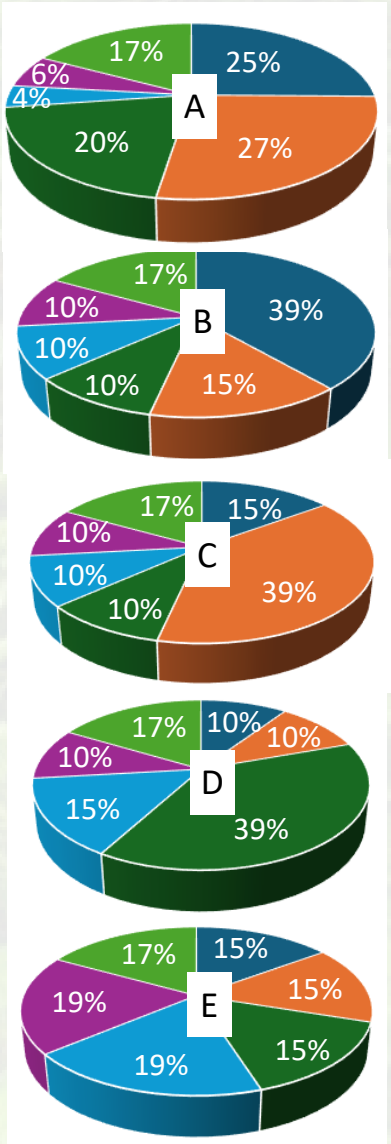
E. Ecosystems of concern (oak woodlands, meadows, riparian) 

How much of the forest should be devoted to each?

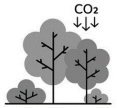
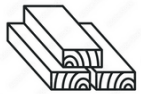
5 initial scenarios assessed to evaluate tradeoffs

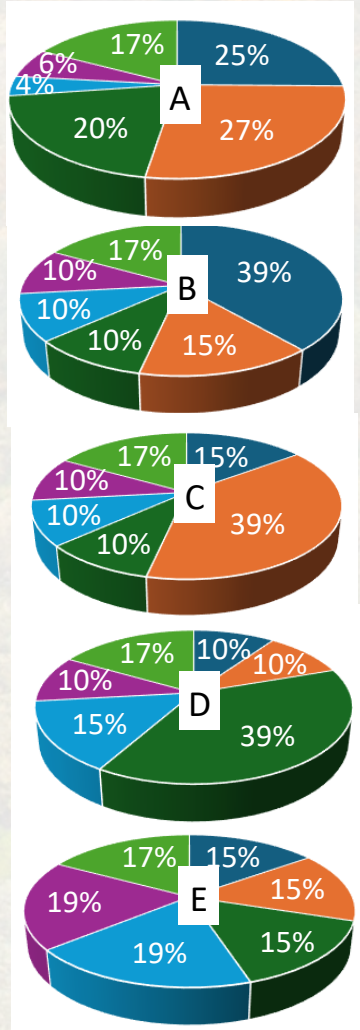
	2024				
Management Strategies	**Scenario A (baseline)**	**Scenario B (high EASR)**	**Scenario C (high EALR)**	**Scenario D (high MAMS)**	**Scenario E (high MR & EOC)**
Even-aged, short rotation (EASR)	25%	39%	15%	10%	15%
Even-aged, long rotation (EALR)	27%	15%	39%	10%	15%
Multi-aged, multi-species (MAMS)	20%	10%	10%	39%	15%
Managed reserve (MR)	4%	10%	10%	15%	19%
Ecosystems of concern (EOC)	6%	10%	10%	10%	19%
Long term learning + non-forest *	17%	17%	17%	17%	17%
TOTAL	100%	100%	100%	100%	100%

* long-term learning + non-forest = acreage unavailable for allocation because held for long-term research or roads, powerlines, lake, quarry, etc.



How will we assess tradeoffs among scenarios?

Forest Value		What are we trying to measure?
Biodiversity		Habitat suitability of focal taxa (bees, early successional birds, late successional birds, red tree voles, ungulates, amphibians)
Forest carbon		Amount of carbon in forest vegetation (in stems, branches, foliage, roots, but not soil)
Forest products		Volume of timber harvested
Recreation acceptability		Perceptions of recreationists of aesthetic acceptability
Resilience - density		Resilience as related to tree density and stand conditions
Resilience - composition		Resilience as related to degree of dominance of Douglas-fir
Revenue - net		Total revenue derived from timber less operational expenses
Wildfire resistance		Degree of resistance to wildfire



Modeling Steps & Timeline

June 3
SAC
Round 1 modeling
FPC
May 30
CIS
June 5

Sept 25
SAC
Round 1v2 modeling
FPC
Sept 16

Oct 24
SAC
Round 2 modeling
FPC
Oct 18
CIS
Oct 28

Proportion	2024 Scenario A (baseline)	Scenario B (lots of EASR)	Scenario C (lots of EALR)	Scenario D (lots of MAMS)	Scenario E (lots of MR & EOC)
Even-aged, short rotation	25%	39%	15%	10%	15%
Even-aged, long rotation	27%	15%	39%	10%	15%
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Managed reserve	4%	10%	10%	15%	19%
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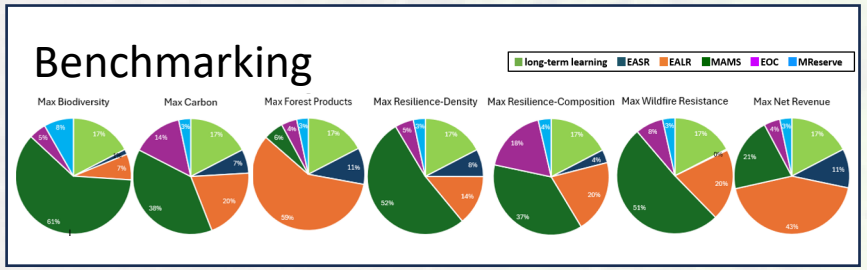
Long term learning + non-forest *	17%	17%	17%	17%	17%
TOTAL	100%	100%	100%	100%	100%

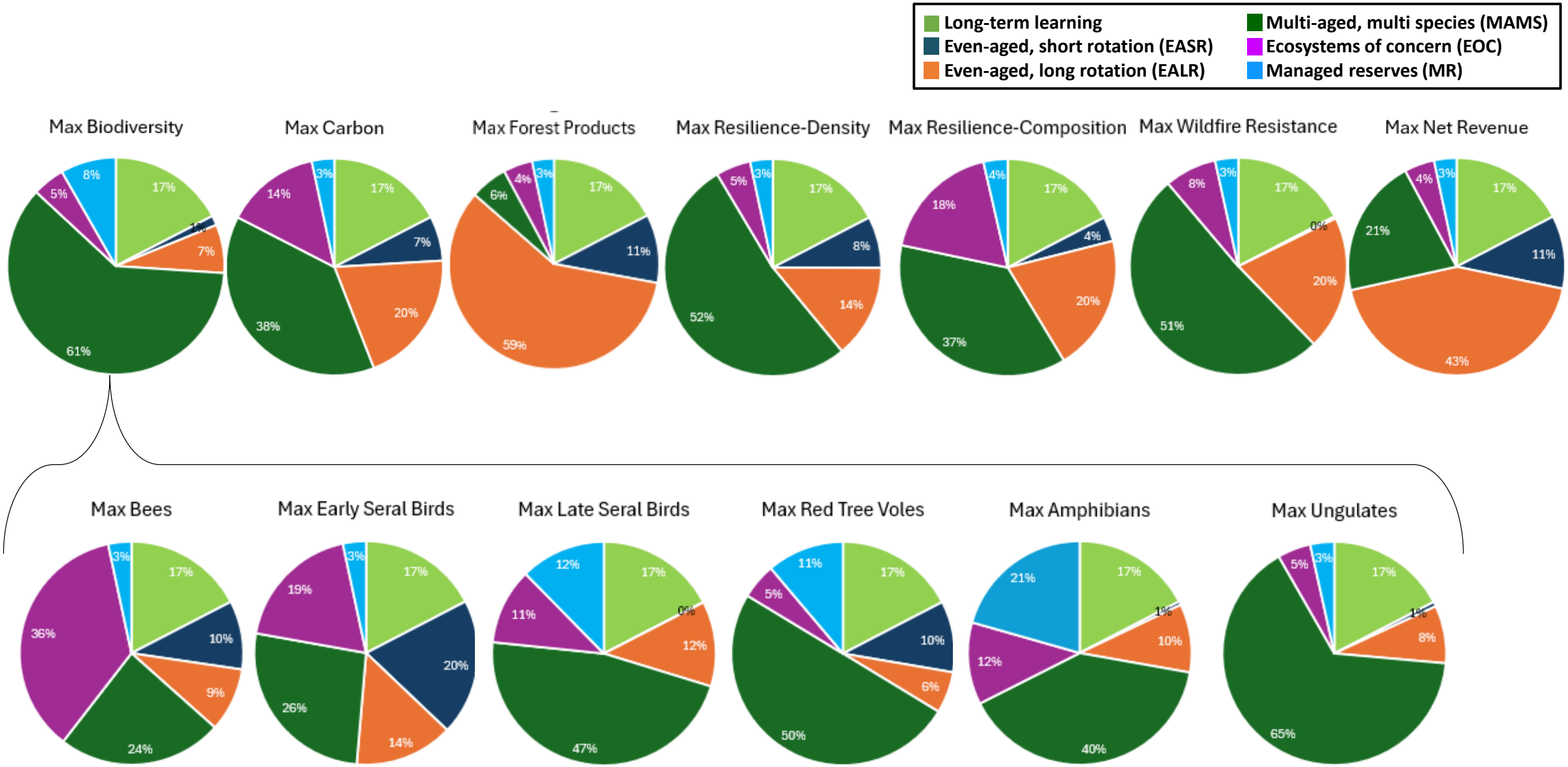
	Scenario K (high EALR)	Scenario M (high EALR & MAMS, low EASR)	Scenario G (high EALR & MAMS, moderate EASR)	Scenario N (equal EALR & MAMS, high EOC)	Scenario H (equal EALR & MAMS, high MR)	Scenario L (high MAMS & EALR, equal others)	Scenario J (high MAMS)
Even-aged, short rotation	8%	5%	14%	9%	10%	10%	8%
Even-aged, long rotation	50%	35%	35%	25%	24%	20%	8%
Multi-aged/multi-species	8%	25%	20%	26%	24%	33%	50%
Managed reserve	8%	9%	8%	8%	15%	10%	8%
Ecosystems of concern	8%	9%	6%	14%	10%	10%	8%
Long term learning + non-forest *	17%	17%	17%	17%	17%	17%	17%
TOTAL	100%	100%	100%	100%	100%	100%	100%

Model edits:

- Increased precision of multi-aged, multi species
- Increased precision of wildfire resistance
- Adjusted harvest age for even-aged, short rotation
- Adjusted log prices



Scenarios that maximize each forest value



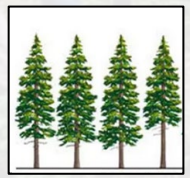
New scenarios modeled to assist in evaluating tradeoffs

(ordered from high to low EALR)

	Scenario K (high EALR)	Scenario M (high EALR & MAMS, low EASR)	Scenario G (high EALR & MAMS, moderate EASR)	Scenario N (equal EALR & MAMS, high EOC)	Scenario H (equal EALR & MAMS, high MR)	Scenario L (high MAMS & EALR, equal others)	Scenario J (high MAMS)
Even-aged, short rotation (EASR)	8%	5%	14%	9%	10%	10%	8%
Even-aged, long rotation (EALR)	50%	35%	35%	25%	24%	20%	8%
Multi-aged/multi-species (MAMS)	8%	25%	20%	26%	24%	33%	50%
Managed reserve (MR)	8%	9%	8%	8%	15%	10%	8%
Ecosystems of concern (EOC)	8%	9%	6%	14%	10%	10%	8%
Long term learning + non-forest *	17%	17%	17%	17%	17%	17%	17%
TOTAL	100%	100%	100%	100%	100%	100%	100%

more even-aged long rotation ← → less even-aged long rotation

* long-term learning + non-forest = acreage unavailable for allocation because held for long-term research or roads, powerlines, lake, quarry, etc.





Results - comparison with the baseline (scenario A)

- Color-coded to facilitate relative comparisons with the baseline (scenario A - current conditions, in white)
- Font is red if less than the baseline (scenario A)

Considerable increase (>50% increase)
Moderate increase (10-50% increase)
Little change (10% increase – 10% decrease)
Moderate decrease (10-50% decrease)
Considerable decrease (>50% decrease)

Forest Value	Scenario A	Scenario K	Scenario C	Scenario M	Scenario G	Scenario N	Scenario H	Scenario L	Scenario E	Scenario B	Scenario D	Scenario J
Biodiversity (avg across all taxa)	1.80	1.78	1.83	1.96	1.87	1.98	2.01	2.03	2.01	1.86	2.13	2.13
Forest carbon (in Tons)	770,133	836,376	885,224	915,267	839,433	964,565	1,004,417	961,854	1,117,992	946,926	1,039,536	962,094
Forest products (per year)	5.5MMBF	5.5MMBF	5.1MMBF	5.1MMBF	5.4MMBF	4.8MMBF	4.5MMBF	4.7MMBF	3.8MMBF	4.1MMBF	4.2MMBF	4.7MMBF
Direct/indirect jobs sustained (per year)	~62 jobs	~62 jobs	~58 jobs	~58 jobs	~61 jobs	~55 jobs	~50 jobs	~53 jobs	~43 jobs	~46 jobs	~48 jobs	~53 jobs
Net revenue (per year)	$1.0M	$966K	$812K	$896K	$966K	$780K	$627K	$757K	$307K	$426K	$550K	$779K
Recreation acceptability	3.42	3.47	3.48	3.44	3.47	3.44	3.55	3.52	3.60	3.44	3.58	3.55
Resilience - density	2.87	2.64	2.59	2.73	2.79	2.61	2.56	2.74	2.21	2.46	2.68	2.94
Resilience - composition	2.58	2.56	2.54	2.49	2.51	2.59	2.57	2.58	2.66	2.71	2.65	2.62
Wildfire resistance	2.43	2.43	2.43	2.50	2.47	2.50	2.49	2.54	2.44	2.42	2.57	2.62

Assessing tradeoffs among land allocation scenarios

- Relative comparison with baseline scenario, showing raw numbers & color-coded % change, ordered high to low EALR

Forest Value	Scenario A	Scenario K	Scenario C	Scenario M	Scenario G	Scenario N	Scenario H	Scenario L	Scenario E	Scenario B	Scenario D	Scenario J
Biodiversity (avg across all taxa)	1.80	1.78	1.83	1.96	1.87	1.98	2.01	2.03	2.01	1.86	2.13	2.13
Forest carbon (in Tons)	770,133	836,376	885,224	915,267	839,433	964,565	1,004,417	961,854	1,117,992	946,926	1,039,536	962,094
Forest products (per year)	5.5MMBF	5.5MMBF	5.1MMBF	5.1MMBF	5.4MMBF	4.8MMBF	4.5MMBF	4.7MMBF	3.8MMBF	4.1MMBF	4.2MMBF	4.7MMBF
Direct/indirect jobs sustained (per year)	~62 jobs	~62 jobs	~58 jobs	~58 jobs	~61 jobs	~55 jobs	~50 jobs	~53 jobs	~43 jobs	~46 jobs	~48 jobs	~53 jobs
Net revenue (per year)	$1.0M	$966K	$812K	$896K	$966K	$780K	$627K	$757K	$307K	$426K	$550K	$779K
Recreation acceptability	3.42	3.47	3.48	3.44	3.47	3.44	3.55	3.52	3.60	3.44	3.58	3.55
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Resilience - composition	2.58	2.56	2.54	2.49	2.51	2.59	2.57	2.58	2.66	2.71	2.65	2.62
Wildfire resistance	2.43	2.43	2.43	2.50	2.47	2.50	2.49	2.54	2.44	2.42	2.57	2.62
bees	0.76	0.76	0.80	0.76	0.75	0.84	0.77	0.79	0.87	0.79	0.77	0.76
early seral birds	1.16	1.08	1.09	1.04	1.10	1.01	1.00	1.02	0.95	1.11	0.99	1.03
late seral birds	2.42	2.38	2.49	2.87	2.60	2.96	3.02	3.07	3.05	2.54	3.33	3.34
red tree voles	0.65	0.81	0.92	0.81	0.81	0.78	1.01	0.86	1.08	1.06	0.97	0.72
amphibians	2.93	2.91	2.98	3.19	3.05	3.26	3.29	3.32	3.29	2.96	3.46	3.46
ungulates	2.90	2.74	2.71	3.09	2.92	3.05	3.00	3.15	2.81	2.68	3.25	3.48

MANAGEMENT STRATEGY	A	K	C	M	G	N	H	L	E	B	D	J
Even-aged, short rotation (EASR)	25%	8%	15%	5%	14%	9%	10%	10%	15%	39%	10%	8%
Even-aged, long rotation (EALR)	27%	50%	39%	35%	35%	25%	24%	20%	15%	15%	10%	8%
Multi-aged/multi-species (MAMS)	20%	8%	10%	25%	20%	26%	24%	33%	15%	10%	39%	50%
Managed reserve (MR)	4%	8%	10%	9%	8%	8%	15%	10%	19%	10%	15%	8%
Ecosystems of concern (EOC)	6%	8%	10%	9%	6%	14%	10%	10%	19%	10%	10%	8%

more even-aged long rotation ← → less even-aged long rotation

- Considerable increase (>50% increase)
- Moderate increase (10-50% increase)
- Little change (10% increase – 10% decrease)
- Moderate decrease (10-50% decrease)
- Considerable decrease (>50% decrease)

Moving to Final Recommendations on Land Allocation

1. Which scenario do you find most preferable for the McDonald-Dunn Research Forest, and why?

2. Which scenario you find least preferable for the McDonald-Dunn Research Forest, and why?

Assessing tradeoffs among land allocation scenarios

- Relative comparison with baseline scenario, showing raw numbers & color-coded % change, ordered high to low EALR

Forest Value	Scenario A	Scenario K	Scenario C	Scenario M	Scenario G	Scenario N	Scenario H	Scenario L	Scenario E	Scenario B	Scenario D	Scenario J
Biodiversity (avg across all taxa)	1.80	1.78	1.83	1.96	1.87	1.98	2.01	2.03	2.01	1.86	2.13	2.13
Forest carbon (in Tons)	770,133	836,376	885,224	915,267	839,433	964,565	1,004,417	961,854	1,117,992	946,926	1,039,536	962,094
Forest products (per year)	5.5MMBF	5.5MMBF	5.1MMBF	5.1MMBF	5.4MMBF	4.8MMBF	4.5MMBF	4.7MMBF	3.8MMBF	4.1MMBF	4.2MMBF	4.7MMBF
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Recreation acceptability	3.42	3.47	3.48	3.44	3.47	3.44	3.55	3.52	3.60	3.44	3.58	3.55
Resilience - density	2.87	2.64	2.59	2.73	2.79	2.61	2.56	2.74	2.21	2.46	2.68	2.94
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bees	0.76	0.76	0.80	0.76	0.75	0.84	0.77	0.79	0.87	0.79	0.77	0.76
early seral birds	1.16	1.08	1.09	1.04	1.10	1.01	1.00	1.02	0.95	1.11	0.99	1.03
late seral birds	2.42	2.38	2.49	2.87	2.60	2.96	3.02	3.07	3.05	2.54	3.33	3.34
red tree voles	0.65	0.81	0.92	0.81	0.81	0.78	1.01	0.86	1.08	1.06	0.97	0.72
amphibians	2.93	2.91	2.98	3.19	3.05	3.26	3.29	3.32	3.29	2.96	3.46	3.46
ungulates	2.90	2.74	2.71	3.09	2.92	3.05	3.00	3.15	2.81	2.68	3.25	3.48
MANAGEMENT STRATEGY	**A**	**K**	**C**	**M**	**G**	**N**	**H**	**L**	**E**	**B**	**D**	**J**
Even-aged, short rotation (EASR)	25%	8%	15%	5%	14%	9%	10%	10%	15%	39%	10%	8%
Even-aged, long rotation (EALR)	27%	50%	39%	35%	35%	25%	24%	20%	15%	15%	10%	8%
Multi-aged/multi-species (MAMS)	20%	8%	10%	25%	20%	26%	24%	33%	15%	10%	39%	50%
Managed reserve (MR)	4%	8%	10%	9%	8%	8%	15%	10%	19%	10%	15%	8%
Ecosystems of concern (EOC)	6%	8%	10%	9%	6%	14%	10%	10%	19%	10%	10%	8%

more even-aged long rotation ← → less even-aged long rotation

- Considerable increase (>50% increase)
- Modest increase (10-50% increase)
- Little change (10% increase – 10% decrease)
- Modest decrease (10-50% decrease)
- Considerable decrease (>50% decrease)

Tentative suggestions for land allocation scenarios from the FPC, subject to change based upon input received…

MANAGEMENT STRATEGY	A (baseline)	X	Y	Z
Even-aged, short rotation (EASR)	25%	10%	10%	10%
Even-aged, long rotation (EALR)	27%	30%	26.5%	23%
Multi-aged/multi-species (MAMS)	20%	23%	26.5%	30%
Managed reserve (MR)	4%	10%	10%	10%
Ecosystems of concern (EOC)	6%	10%	10%	10%
Long-term research + non-forest	17%	17%	17%	17%

Anticipated Steps

Moving to Final Recommendations on Land Allocation

1. Which scenario do you find most preferable for the McDonald-Dunn Research Forest, and why?

2. Which scenario you find least preferable for the McDonald-Dunn Research Forest, and why?


Questions?
Input?