

A person wearing an orange hard hat and a grey jacket is standing in a forest, looking down at a device in their hands. The forest is dense with green ferns and trees. The text is overlaid on the left side of the image.

# College Forest Updates: McDonald & Dunn Forest Management Planning Process

Spring 2022 – End of 2024

**OSU McDONALD-DUNN RESEARCH FOREST FMP  
Stakeholder Advisory Committee Meeting #10**  
September 25, 2024, 1:00 – 4:00 PM

Peavy Forest Science Center (PFSC) – Room 316  
3100 SW Jefferson Way Corvallis, OR 97333

Via Zoom Webinar: <https://pdx.zoom.us/j/88801778270> (public attendee link)

**PROPOSED AGENDA**

1:00 – 1:20 (20 mins)	<b>Welcome, Introductions, Agenda Overview</b> <ul style="list-style-type: none"> <li>• Introductions</li> <li>• Agenda overview</li> <li>• Quick review – where we have been and where we are going</li> <li>• Updates from the FPC process</li> </ul>
1:20 – 2:00 (40 mins)	<b>Overview of Updated Modeling Run (v 1.2) and Benchmarking Runs</b> <ul style="list-style-type: none"> <li>• Overview of latest modeling</li> <li>• Overview of benchmarking results (<i>modeling to maximize one or more outcome metrics</i>)</li> <li>• Current thinking about a culturally significant plant metric</li> <li>• SAC input: questions, concerns and discussion</li> </ul>
2:00 – 2:30 (30 mins)	<b>Q&amp;A with COF Dean DeLuca</b> <ul style="list-style-type: none"> <li>• Questions, concerns and discussion</li> </ul>
2:30 – 2:40 (10 mins)	<b>Break</b>
2:40 – 3:10 (30 mins)	<b>Overview of Budget for McDonald-Dunn Research Forests</b> <ul style="list-style-type: none"> <li>• Budget overview</li> <li>• SAC input: questions, concerns and discussion</li> </ul>
3:10 – 3:50 (40 mins)	<b>Additional SAC Input and Discussion</b> <ul style="list-style-type: none"> <li>• Additional questions regarding modeling, benchmarking, forest operations, budget</li> <li>• SAC input and concerns regarding future modeling and benchmarking</li> <li>• SAC members' desired/ideal outcomes for the McDonald-Dunn forests and the FMP</li> </ul>
3:50 – 4:00 (10 mins)	<b>Next Steps and Timelines</b> <ul style="list-style-type: none"> <li>• Additional modeling</li> <li>• SAC and community input</li> </ul>
4:00	<b>Adjourn</b>



## 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

- Sept 25, 2024, 1-4pm, Stakeholder Advisory 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://pdx.zoom.us/j/88601778270>
- Oct. 3, 2024, 12-1pm, 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/95431820037?pwd=C6UhzEYALStpl46XobOYkEHUjbyw3.1>

## 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.

- 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.

- Sept 16, 2024, FPC Meeting ([agenda](#), [presentation](#), [video recording](#))
- 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

## Search in Comment Field




<u>Name</u>	<u>Date</u>	<u>Comment</u>
Anonymous	07/26/2024	<p>I am concerned about certain aspects of the first round of forest modeling dealing with biodiversity. First, and most concerning, is the rough data which inexplicably shows that INCREASING specific habitat for red tree voles and amphibians will result in a DECREASE not inspire confidence in the other numbers that do not exhibit such a flagrant violation of logic.</p> <p>Second, why are there no plant species considered in the biodiversity modeling? There is no mention of understory plants at all. The forest is more than just trees; th If managed properly, the McDonald-Dunn can become a refuge for threatened or rare species of plants, including those of cultural importance to local tribes.</p> <p>Third, I wonder if there is any attempt made to classify various species according to their population status or ecological benefit. While certain management regimes not matter what those species are? We should manage it to prioritize habitat for native, threatened, and under-represented species of all taxa.</p>
Anonymous	07/07/2024	<p>Electric bikes and hover boards are ruining the experience of hiking and mountain biking in McDonald Forest. They are noisy and the people riding them seem think or hoverboard. If they are allowed there will be no way to control them. The forest will become a motorcycle park.</p>
Anonymous	06/16/2024	<p>Last Friday (June 14, 2024) I saw a closure sign for the Woodpecker Phase 1 logging project. The sign was posted at the 500 Road gate. I hike there weekly and this w More advance notice sure would have been nice. I am writing to ask you to relocate the approximately 600-foot-long strip of Woodpecker 1 boundary that is immedi proceeding uphill. Please shift that section of the Woodpecker 1 boundary far enough away from the trail that the resulting logging operations do not become appar Creek uphill from Cronemiller Lake is an exceedingly important stretch of trail for me. For two reasons. Reason 1. To regain cardiac fitness, I have climbed Peavy Pea section of the Section 36 trail to wind down and appreciate the beauty of this older forest. Logging boundaries that are immediately adjacent to the trail will likely re: The forest trail uphill along Calloway Creek is one of the very few good options that enthusiasts have for hiking in an old forest stand near Corvallis. &lt;-&gt; You have alre uphill after the first 600 feet. Presumably this is because the trail enters a portion of a mature forest reserve here. I would prefer you cut more trees elsewhere in th of this trail. Reason 2. In the early 1990s I was a founding member and 1-year president of the Native Yew Conservation Council (NYCC). We advocated among all inte source of the compound entailed stripping the bark from ancient yew trees. Our efforts hastened the efforts of Bristol Myers Squibb and Weyerhaeuser to source Te NYCC, I witnessed large-scale harvesting of yew trees, especially old ones. This pertains to my input because Calloway Creek should really be named "Yew Creek." In populations of yew trees as dense and varied as that along this stretch of creek and trail. I have counted over 100 yew trees and some specimens are likely hundred: operations, I implore you to avoid cutting any yew trees in your logging operations. Oh yes, and possibly one more pertinent request, if needed. Although the Woodj proposed logging boundaries, please don't fell the huge Douglas-fir wolf tree located just uphill from Cronemiller Lake.</p>

# 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 Meetings

Faculty Planning  
Committee Meetings

Comment / Question  
Submission



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

Stakeholder Advisory  
Committee Meetings

Faculty Planning  
Committee 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

# Anticipated Steps





**What conditions do we intend  
to create on the forest?**



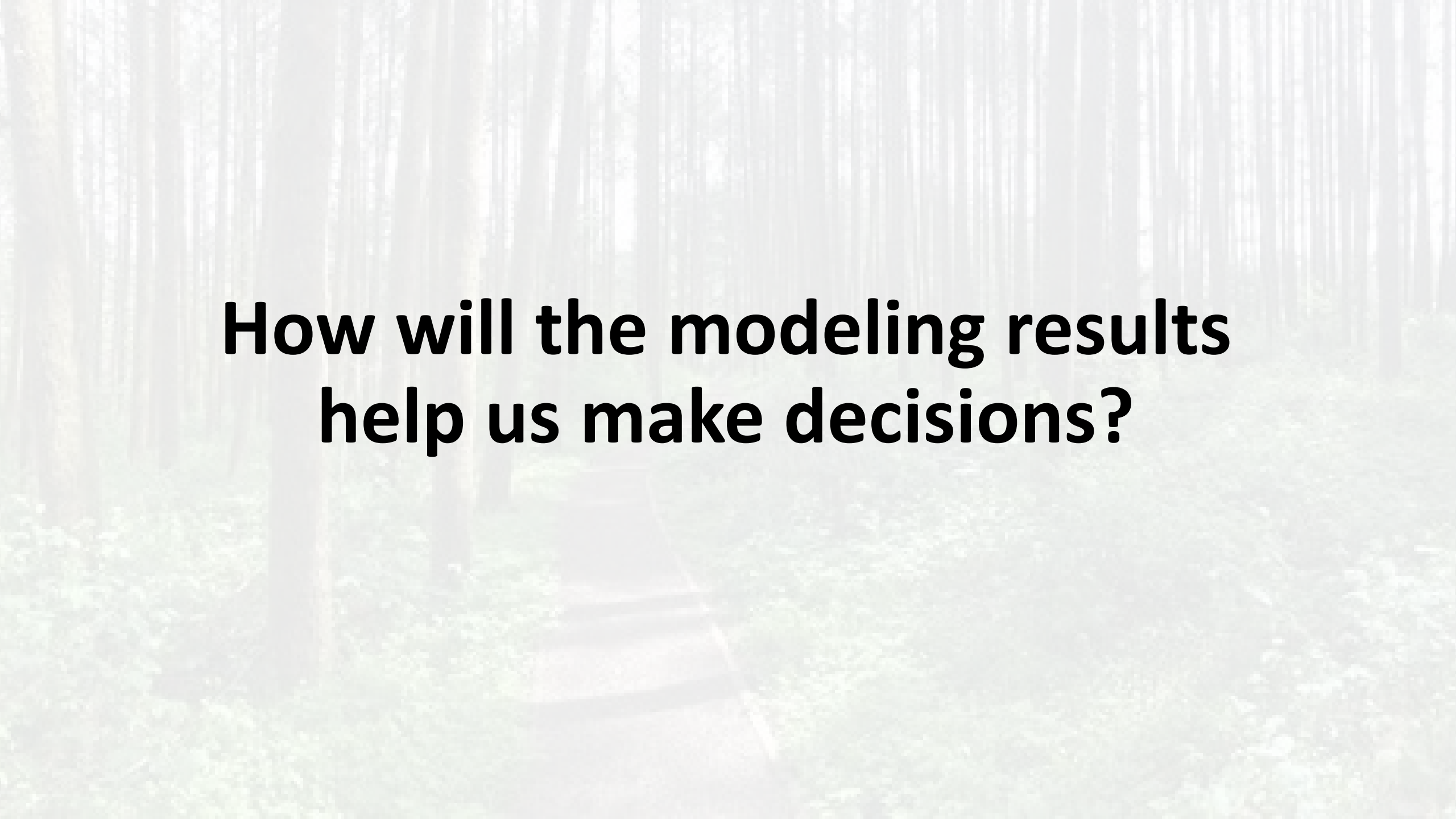
# Recap: 5 'Forest Management Strategies' for the new plan

- 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)







# Recap: Overview of each ‘Management Strategy’

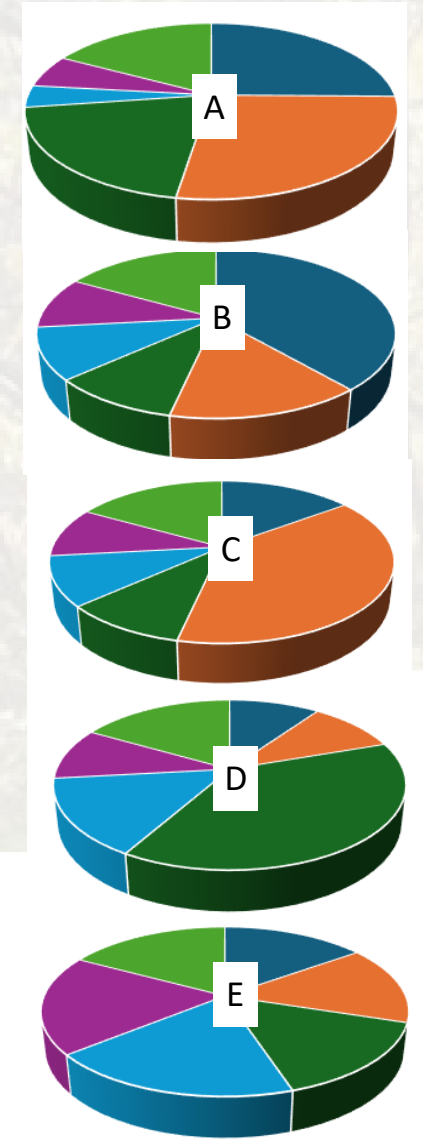
	Even-aged short rotation	Even-aged long rotation	Multi-aged multi-species	Managed reserves	Ecosystems of concern
<b>Overview</b>	Even-aged plantations of Douglas-fir (or other climatic-appropriate species and genetic stock) will be established and managed to be financially competitive by maximizing yields of wood products valuable for domestic mills. Clearcut harvests will not exceed 80 acres (with limited exceptions due to large-scale disturbances).	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 large-scale disturbances).	Multi-aged, mixed-species forests of primarily Douglas-fir will be established and managed using <u>shelterwood-with-residuals</u> , <u>group-selection</u> , and <u>variable retention</u> regeneration harvests to create heterogeneity in openings, regenerate new age classes of trees, and maintain structural diversity for a variety of values. Multiple native tree species will be encouraged. These harvests will not exceed 40 acres.	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 for a variety of values, 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.	Restoration and maintenance activities will be undertaken in native oak savanna/woodlands, meadows, and riparian/aquatic systems. Two strategies will be employed: <ul style="list-style-type: none"> <li>• retain and conserve the most at-risk and highest value components of ecological and cultural diversity, and</li> <li>• use intensive efforts where needed to improve and restore broader ecological and/or cultural functions at specific sites.</li> </ul>

A blurred background image of a forest path with a wooden bench. The path is made of wooden planks and leads into a dense forest of tall, thin trees. A wooden bench is positioned on the path in the middle ground. The overall scene is bright and airy, with sunlight filtering through the trees.

**How will the modeling results  
help us make decisions?**

# Recap: Modeling of 5 Scenarios to Evaluate Tradeoffs

	2024				
Proportion	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%
Multi-aged/multi-species	20%	10%	10%	39%	15%
Managed reserve	4%	10%	10%	15%	19%
Ecosystems of concern	6%	10%	10%	10%	19%
Long term learning + non-forest *	17%	17%	17%	17%	17%
<b>TOTAL</b>	100%	100%	100%	100%	100%



- Even-aged, short rotation
- Even-aged, long rotation
- Multi-aged/multi-species
- Managed reserve
- Ecosystems of concern
- Long term learning\*

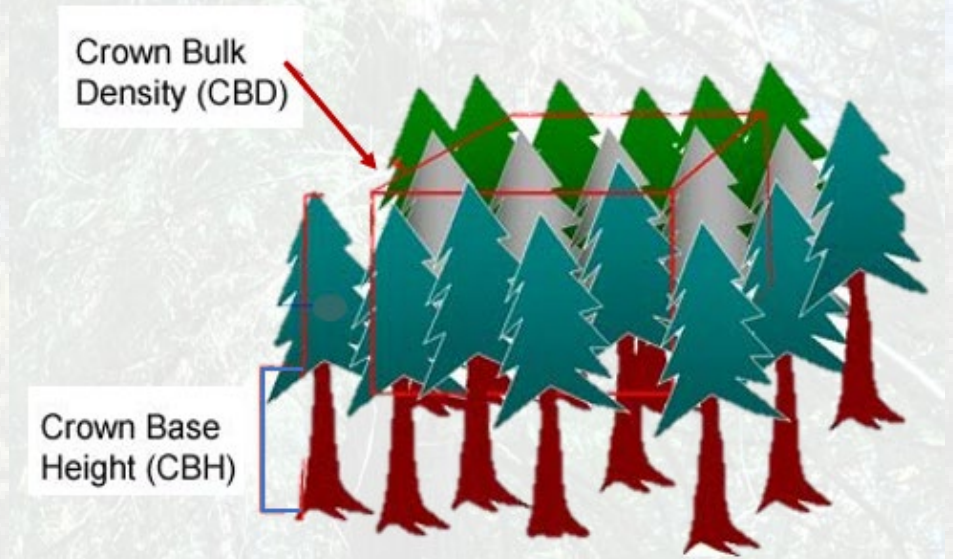
\* long-term learning + non-forest = acreage unavailable for allocation because held for long-term research or roads, powerlines, lake, quarry, etc.

# Edits to model input for v1.2

- Biodiversity – revisited Multi-aged/Multi-species management strategy
  - group selection
  - variable retention
  - shelterwood
- Wildfire resistance – added 3<sup>rd</sup> element
  - canopy bulk density
  - canopy base height
  - surface fuel loading
- Even-aged short rotation – adjusted rotation age
- Net revenue... (*see next slide*)

## Multi-aged multi-species

Multi-aged, mixed-species forests of primarily Douglas-fir will be established and managed using shelterwood-with-residuals, group-selection, and variable retention regeneration



## Even-aged short rotation

Rotation lengths will be regulated primarily by age that maximizes net revenue production

Rotations will be 30-60, likely 35-45 years.

# Additional investigation of economics


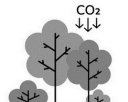
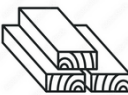





- Assessed impact of log prices
  - Modeled with log prices from 2023
  - Modeled with log prices from 2024 (14% reduction)
- Assessed impact of discount rates
  - Modeled with 4%
  - Modeled with 5%
- Differences in results between discount rates were minimal
- We'll move forward with the conservative log prices and 4% interest rate

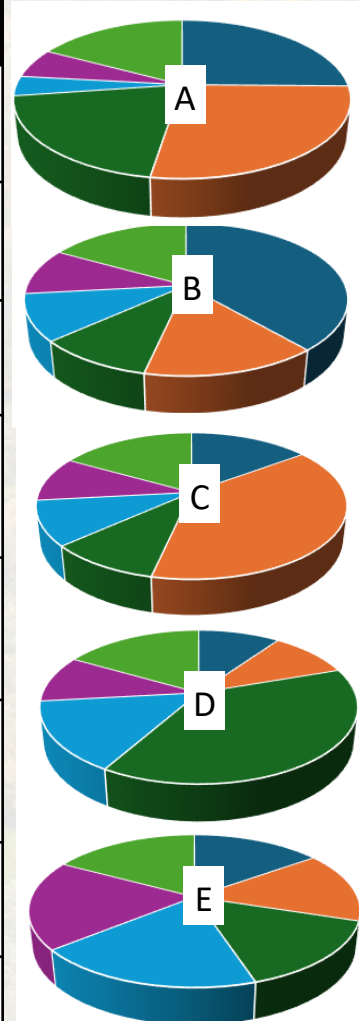
# How will we assess tradeoffs among the 5 land allocation scenarios?

2024



# Recap: 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 forest carbon (live & dead trees, shrubs, herbs, litter)
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





# Recap: Model parameters and constraints

- Modeling occurred at 5-year time steps for 125 years
- **Reforestation constraint** – any harvested stand must be replanted (except thinning, ecosystems of concern)
- **Cash-flow positivity constraint** – revenue within each 5-year period must equal or exceed expenditures
- **Bounded even flow constraint** – timber volume can fluctuate no more than 10% between lowest and highest 5-year periods
- **Acreage constraints**
  - Minimum of 10 acres of oak savanna and meadow must be restored each 5-year period
  - Maximum of 750 acres harvested through clearcuts each 5-year period (i.e., <150 acres/year)

# Results will be presented 4 ways in next 4 slides

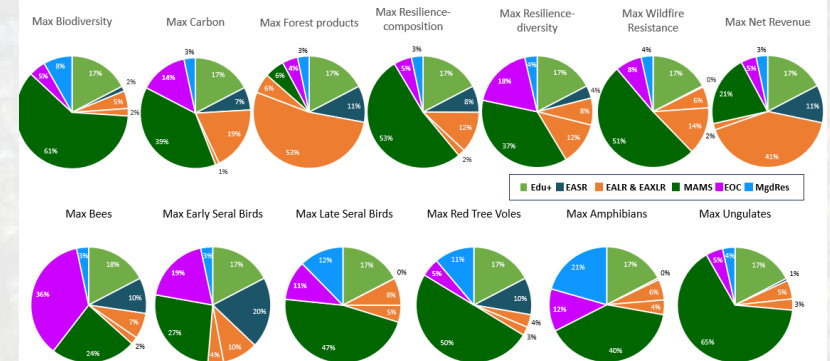
1. Comparison of values across the 5 initial scenarios, color-coded to facilitate relative comparisons with the baseline (current conditions)
2. Comparison of values across the 5 initial scenarios, color-coded to highlight **lowest** and **highest** values for each forest characteristic
3. Highest possible values for each forest characteristic to set expectations
4. Scenarios that maximize each of the forest characteristics

	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)	
Forest Value (averaged across 5-year period)	1.80	1.86	1.83	2.13	2.01	
Biodiversity (avg across all taxa)	1.80	1.86	1.83	2.13	2.01	
Forest carbon	770,133T	946,926T	885,224T	1,039,536T	1,117,992T	
Forest products (per 1-yr period)	5.5 MMBF	4.1 MMBF	5.1 MMBF	4.2 MMBF	3.8 MMBF	
Net revenue (per 1-yr period)	\$1.00M	\$426K	\$812K	\$550K	\$307K	
Recreation acceptability	3.42	3.44	3.48	3.58	3.60	
Resilience - density	2.87	2.46	2.59	2.68	2.21	
Resilience - composition	2.58	2.71	2.54	2.65	2.66	
Wildfire resistance	2.43	2.42	2.43	2.57	2.44	

	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)	
Forest Value (averaged across 5-year period)	1.80	1.86	1.83	2.13	2.01	
Biodiversity (avg across all taxa)	1.80	1.86	1.83	2.13	2.01	
Forest carbon	770,133T	946,926T	885,224T	1,039,536T	1,117,992T	
Forest products (per 1-yr period)	5.5 MMBF	4.1 MMBF	5.1 MMBF	4.2 MMBF	3.8 MMBF	
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Wildfire resistance	2.43	2.42	2.43	2.57	2.44	





Forest Value	Highest possible
Biodiversity - all taxa	2.37
Forest carbon	1,239,618 T
Forest products	6.5 MMBF
Net revenue	\$1.4 mil
Resilience - density	4.04
Resilience - composition	4.48
Wildfire resistance	3.35

Forest Value	Highest possible
Bees	1.60
Early seral birds	1.66
Late seral birds	4.01
Red tree voles	1.39
Amphibians	3.96
Ungulates	4.13

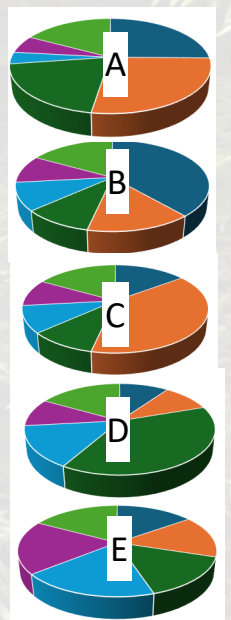


# v1.2 Assessing tradeoffs among land allocation scenarios

- Relative comparison with baseline scenario, showing raw numbers & color-coded % change

	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)
<b>Forest Value</b>					
<b>Biodiversity (avg across all taxa)</b>	1.80	1.86	1.83	2.13	2.01
<b>Forest carbon</b>	770,133T	946,926T	885,224T	1,039,536T	1,117,992T
<b>Forest products (per 1-yr period)</b>	5.5 MMBF	4.1 MMBF	5.1 MMBF	4.2 MMBF	3.8 MMBF
<b>Direct/indirect jobs sustained (per 1-yr period)</b>	~62 jobs	~46 jobs	~58 jobs	~47 jobs	~43 jobs
<b>Net revenue (per 1-yr period)</b>	\$1.0M	\$426K	\$812K	\$550K	\$307K
<b>Recreation acceptability</b>	3.42	3.44	3.48	3.58	3.60
<b>Resilience - density</b>	2.87	2.46	2.59	2.68	2.21
<b>Resilience - composition</b>	2.58	2.71	2.54	2.65	2.66
<b>Wildfire resistance</b>	2.43	2.42	2.43	2.57	2.44
bees	0.76	0.79	0.80	0.77	0.87
early seral birds	1.16	1.11	1.09	0.99	0.95
late seral birds	2.42	2.54	2.49	3.33	3.05
red tree voles	0.65	1.06	0.92	0.97	1.08
amphibians	2.93	2.96	2.98	3.46	3.29
ungulates	2.90	2.68	2.71	3.25	2.81

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



**v1.2**

- lowest and highest values for each metric among 5 scenarios

2024



Forest Value	Scenario A (baseline)	Scenario B (lots of EASR)	Scenario C (lots of EALR)	Scenario D (lots of MAMS)	Scenario E (lots of MR & EOC)
Biodiversity - all taxa	1.80	1.86	1.83	2.13	2.01
Forest carbon	770,133T	946,926T	885,224T	1,039,536T	1,117,992 T
Forest products (per 1-yr period)	5.5 MMBF	4.1 MMBF	5.1 MMBF	4.2 MMBF	3.8 MMBF
Net revenue (per 1-yr period)	\$1.0 mil	\$426K	\$812K	\$550K	\$307K
Recreation acceptability	3.42	3.44	3.48	3.58	3.60
Resilience - density	2.87	2.46	2.59	2.68	2.21
Resilience - composition	2.58	2.71	2.54	2.65	2.66
Wildfire resistance	2.43	2.42	2.43	2.57	2.44
Bees	0.76	0.79	0.80	0.77	0.87
Early Seral Birds	1.16	1.11	1.09	0.99	0.95
Late Seral Birds	2.42	2.54	2.49	3.33	3.05
Red Tree Voles	0.65	1.06	0.92	0.97	1.08
Amphibians	2.93	2.96	2.98	3.46	3.29
Ungulates	2.90	2.68	2.71	3.25	2.81

Highest  
Lowest

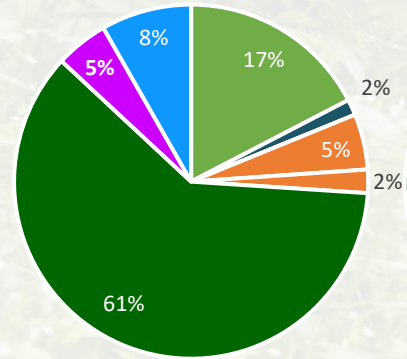


# v1.2 Benchmarking – maximum values for each metric in any 5-year period, when optimized

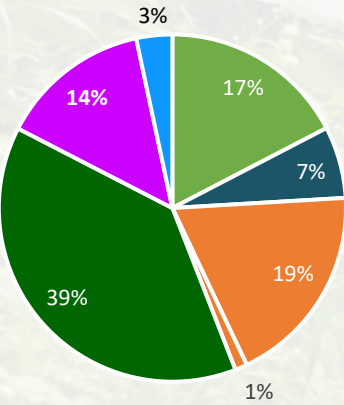
Forest Value	Highest possible
Biodiversity - all taxa	2.37
Forest carbon	1,239,618 T
Forest products	6.5 MMBF
Net revenue	\$1.4 mil
Resilience - density	4.04
Resilience - composition	4.48
Wildfire resistance	3.35
Bees	1.60
Early Seral Birds	1.66
Late Seral Birds	4.01
Red Tree Voles	1.39
Amphibians	3.96
Ungulates	4.13

# Scenarios that maximize each forest characteristic

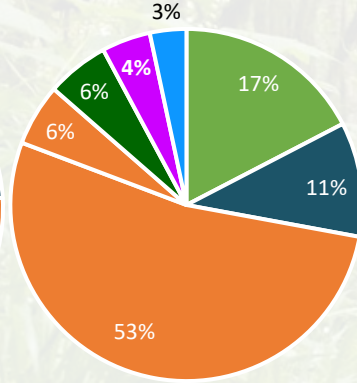
Max Biodiversity



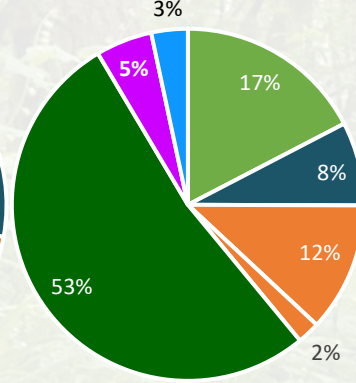
Max Carbon



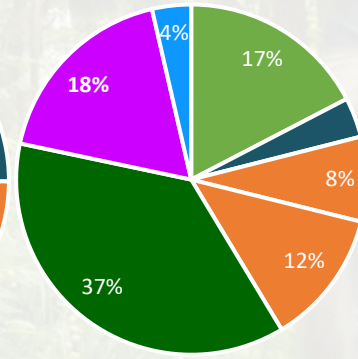
Max Forest products



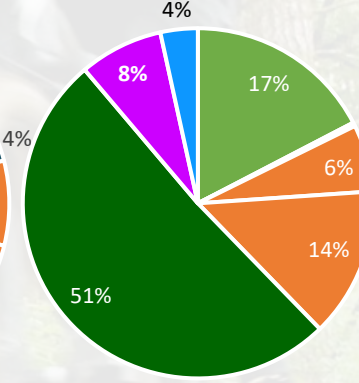
Max Resilience-composition



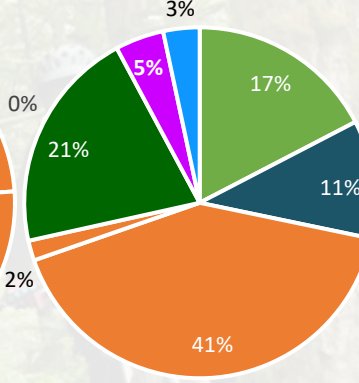
Max Resilience-diversity



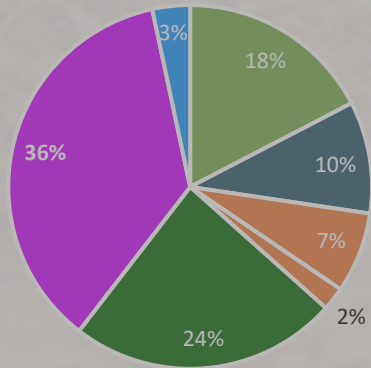
Max Wildfire Resistance



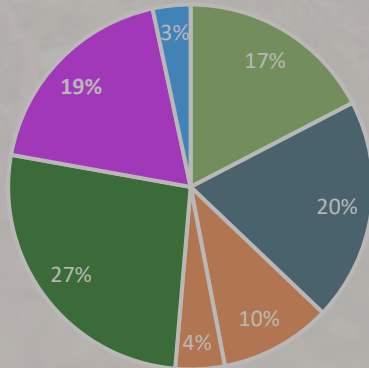
Max Net Revenue



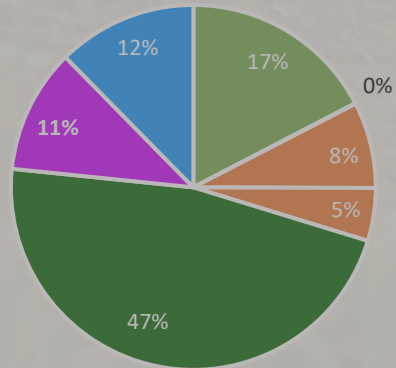
Max Bees



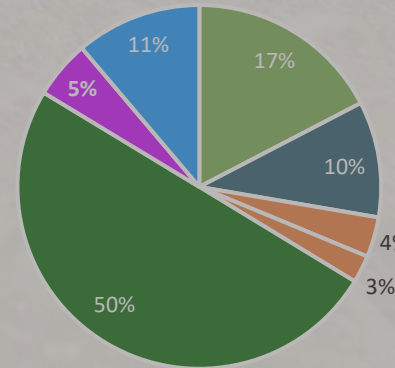
Max Early Seral Birds



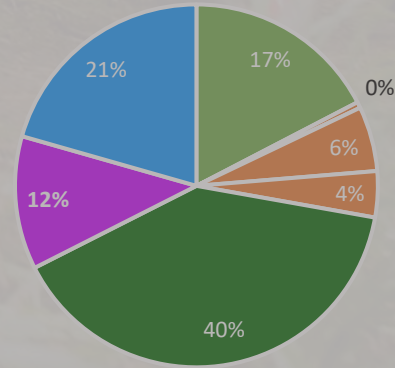
Max Late Seral Birds



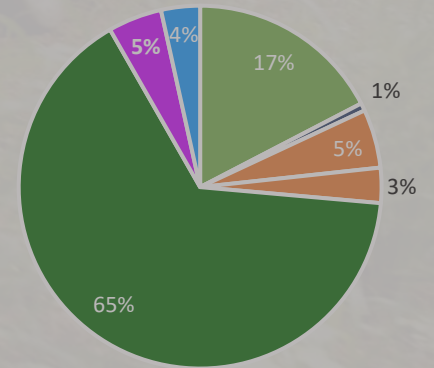
Max Red Tree Voles



Max Amphibians



Max Ungulates



# Moving to Round 2 of Modeling

- Four questions:
  1. Which of the 5 scenarios do you find most preferable, and why?
  2. Which of the 5 scenarios you find least preferable, and why?
  3. Which additional scenario would you like to see explored in Round 2?
  4. What values would you most like to see increased or decreased?



A misty forest path with tall trees and sunlight filtering through the canopy. The path is dirt and leads into the distance. The trees are tall and thin, with dense foliage. The overall atmosphere is serene and slightly mysterious.

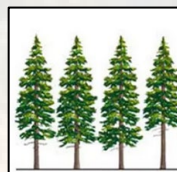
# **FPC Initial Ideas on Additional Scenarios to Investigate**



# Tentative FPC ideas on additional scenarios to model

	Scenario F (mix of C&D)	Scenario G (another mix of C&D)	Scenario H (lots of MR, equal EALR & MAMS)	Scenario I (equal EASR, EALR, MAMS)	Scenario J (lots of MAMS)	Scenario K (lots of EALR)	Scenario L (another mix of C&D)
Even-aged, short rotation	11%	14%	10%	21%	8%	8%	10%
Even-aged, long rotation	26%	35%	24%	21%	8%	50%	20%
Multi-aged/multi-species	26%	20%	24%	21%	50%	8%	33%
Managed reserve	10%	8%	15%	10%	8%	8%	10%
Ecosystems of concern	10%	6%	10%	10%	8%	8%	10%
Long term learning + non-forest *	17%	17%	17%	17%	17%	17%	17%
<b>TOTAL</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>

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



A photograph of a dirt path winding through a dense forest. Sunlight filters through the trees, creating a dappled light effect on the path and the surrounding foliage. The path leads into the distance, flanked by tall, thin trees and lush green plants. The overall atmosphere is peaceful and natural.

# Next Steps

# Tentative timeline for upcoming events

- Wed, Sept 25 – SAC mtg #10 to decide what to model in Round II
- Thurs, Oct 3 – FPC mtg #24 to finalize decision on what to model in Round II
- Oct 4-11 – Round II modeling
- ~Oct 16-21 – FPC mtg #25 to discuss Round II results and weigh in on preferred scenario
- ~Oct 21-28 – SAC mtg #11 to discuss Round II results and weigh in on preferred scenario
- ~Oct 28-30 – 2<sup>nd</sup> CIS to discuss preferences among scenarios and weigh in on preferred scenario

# Types of Expenses Associated with the McDonald-Dunn Research Forests

Expense Type	Explanation
Harvest expenses	logging and transportation costs; unit layout; tree marking and cruising; student staffing
Staff salaries	staff salaries and benefits
Forest regeneration	seed acquisition; growing and planting seedlings; site preparation and release; browse protection; slash burning; regeneration surveys; student staffing
Forest roads	maintenance; repair; student staffing
Forest facilities	building maintenance; internet and phones; utilities; cleaning; law enforcement; ODF fire protection; fire waterline repair
Recreation & outreach	volunteer program; supplies and equipment; trails and facilities; rentals and leases; outreach and public information; student staffing
Administration	office supplies; computers and copiers; legal expenses; appraisal services; consulting; business affairs; forest plan development
Research support	student research; faculty research; equipment and supplies <i>(Note that virtually all expense types underpin research opportunities, e.g., harvest expenses, staff salaries, forest regeneration, etc. are needed to enable research to occur.)</i>
Inventory & GIS	contracting; student staffing
Vehicles	operation; maintenance; purchase
Cultural resources	surveys of cultural sites and resources
Fire/fuel reduction	mastication contracting; herbicide applications; fire suppression equipment
Restoration	contracting; project treatments
Wildlife	owl surveys; stream and fish surveys