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

Spring 2022 – End of 2024

OSU College of Forestry McDonald-Dunn Research Forest Faculty Planning Committee Meeting #23 Peavy Forest Science Center or Zoom (<u>Join Zoom Meeting</u>) 16 Sept 2024, 10am-noon

#### Agenda

Meeting Purpose:

- Share information on recent and upcoming efforts and events
- Examine updated results from the modeling
- Weigh in on scenarios to be modeled for Round 2
- Discuss tasks to be completed this fall

Start Time	Activity
10:00am	Review where we've been and where we're going
10:05am	<ul> <li>Examine new modeling results</li> <li>Provide overview of the forest modeling process</li> <li>Summarize changes to the model input</li> <li>Recount the metrics to be used to assess tradeoffs among land allocation scenarios</li> </ul>
10:15am	Discuss the modeling results <ul> <li>Assess tradeoffs among scenarios</li> <li>Investigate the advantages and drawbacks of each scenario</li> <li>Brainstorm about which additional scenarios to investigate</li> </ul>
11:30am	<ul> <li>Review other outstanding needs</li> <li>Discuss definitions of maximum ages of trees or stands harvested</li> <li>Revisit guidance for <i>Ecosystems of Concern</i> management strategies</li> <li>Revisit monitoring plans</li> <li>Revisit sections of Chapter 3 written by each sub-group</li> <li>Review various sections of the written plan as they are completed</li> </ul>
11:55pm	Next steps
noon	Adjourn



#### 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 <u>Vision, Mission, and Goals</u>.

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. <u>Members of the Stakeholder Advisory Committee and Faculty Planning Committee</u>

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 <u>webform</u> through which written comments can be provided, and an <u>email</u> to which written questions can be sent. We usually respond within 14 days.

#### **UPCOMING MEETINGS & EVENTS**

- Sept 16, 2024, 10am-noon, 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)
- 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)

#### 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)
- · 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.

- May 30, 2024, FPC Meeting (agenda, presentation, video recording)
- · 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 (<u>agenda</u>, <u>presentation</u>, <u>video recording</u>, <u>meeting summary</u>) 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 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.

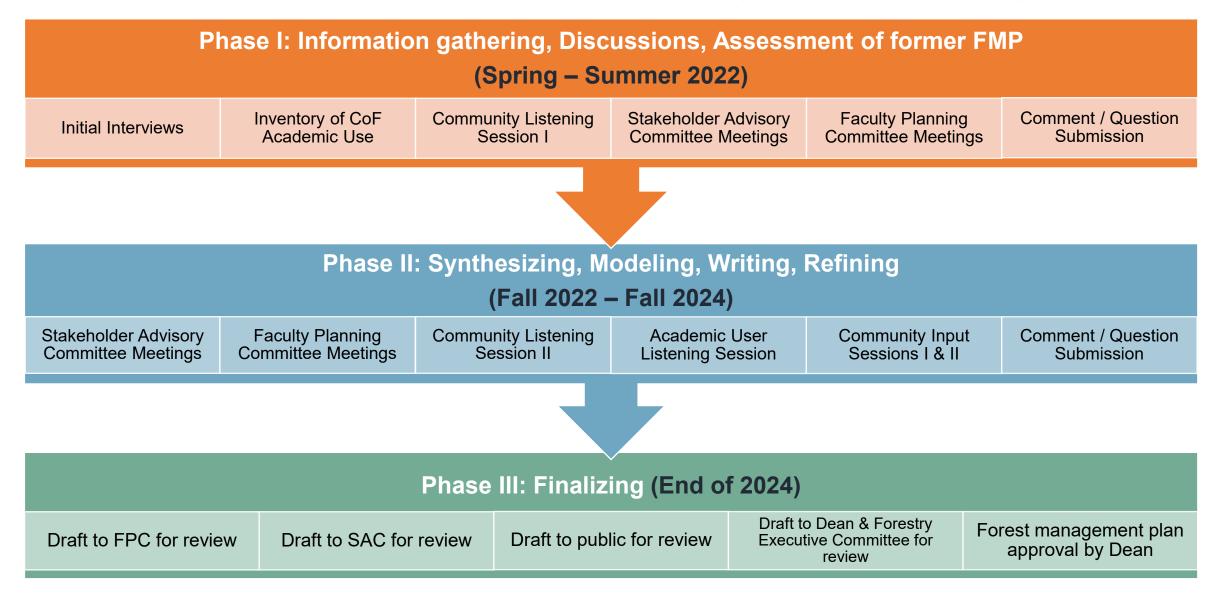
Mar. 21 & 22, 2023, Academic User Listening Sessions (open forums)

- 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

		Apply Reset
<u>Name</u>	Date	Comment
Anonymous	07/26/2024	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. 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; to 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. Third, I wonder if there is any attempt made to classify various species according to their population status or ecological benefit. While certain management regime not matter what those species are? We should manage it to prioritize habitat for native, threatened, and under-represented species of all taxa.
Anonymous	07/07/2024	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.
Anonymous	06/16/2024	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 we 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 immede 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 appare 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 Pe 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 response 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. $\Leftrightarrow$ You have alr 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 the 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 T 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 Wood proposed logging boundaries, please don't fell the huge Douglas-fir wolf tree located just uphill from Cronemiller Lake.
Anonymous	06/11/2024	To the McDonald Dunn Research Forest I was able to briefly review the presentation and video. To think that this is the same OSU that played a leading role in der reviewing this management plan. It is in most evey way upside down. This is not ecological forestry. This is not research into practices we don't already know about. a forestry of the past. It is the old growth and late successional trees that should make up 40% with rotations designed to support important ecological services cl integrity. The public deserves ecological forestry, a forestry that has multiple benefits to society not a forestry primarily in service to the market. The public deserves
Anonymous	06/07/2024	"Thank you for accepting public input. I favor a management plan that maximizes conservation. I'm concerned about the current rate of clear cutting. "
Anonymous	06/07/2024	I attended and zoomed in on the public forum Wed. June 5. Here's what I said and would like a reply on my questions: I want to know who chooses the "experts for your study criteria and management plan? I also want to know how you avoid conflicts of interest between the College Management Organizations)? I represent both the taxpayers of Oregon and those who donate funds to support OSU "Research Forests". We want to protect the na are horribly alarmed at the indiscriminate "harvesting" of your "Research Forests" and have witnessed the destruction of canopy forests and habitats. Do you have surveys that address the protection of the many non-human inhabitants (like nesting birds, raccoons, bears, cougars, and the many rodents that inhabit wooded ar and putting "capitalism" before the environmental impact of logging operations. The animals, the birds, the ecological health of your forests do not have a voice, no The Sierra Club, and the Environmental Defense Fund have all witnessed how the OSU College of Forestry sets priorities and accommodates the Timber Industry ov forth a plan to truly protect and preserve the habitats that are left? When will you honor biodiversity over making money? We look forward to your answers and will Dunn Research Forests", as well as the other forest projects that you support or are involved in."
Anonymous	06/05/2024	

### **McDonald-Dunn Research Forest Management Planning Process**



### **Anticipated Steps**



# Recap: 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
Overview	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, group-</u> <u>selection</u> , and <u>variable</u> <u>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: • 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.

# Recap: How will the modeling results help us make decisions?

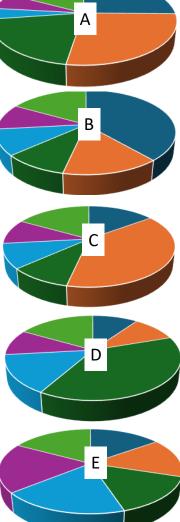
### **Recap: Modeling of 5 Scenarios to Evaluate Tradeoffs**

1 ž.

	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%
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. Even-aged, short rotation

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



# Edits to model input for v1.2

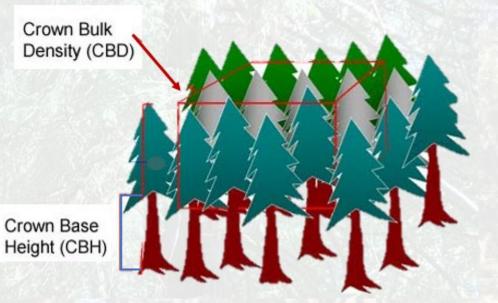
- Biodiversity revisited Multi-aged/Multi-species management strategy
  - group selection
  - variable retention
  - 。 shelterwood

Multi-aged multi-species

Multi-aged, mixedspecies forests of primarily Douglas-fir will be established and managed using shelterwood-withresiduals, groupselection, and variable retention 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.

# 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



# 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...

	Even-aged short rotation
Stand age	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

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









### **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 carbon in live trees	
Forest products		Volume of timber harvested	
Recreation acceptability	沷	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)</li>

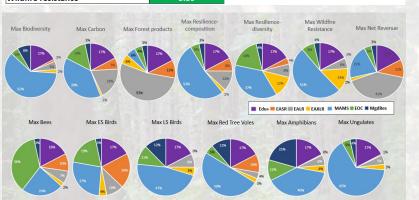
### New: Results will be presented 4 ways

- Comparison of values across the 5 initial scenarios, color-coded to facilitate relative comparisons with the baseline (current conditions)
- 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 forest characteristic

	2024	平平平下			
Forest Value (averaged across 5-year period)	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 (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
Forest Value (averaged across 5-year period)	Scenario A (baseline)	Scenario B (lots of FASR)	Scenario C	Scenario D	Scenario E
Forest Value (averaged across 5-year period) Biodiversity (ave across all taxa)	Scenario A (baseline) 1.80	Scenario B (lots of EASR) 1.86	Scenario C (lots of EALR) 1.83	Scenario D (lots of MAMS) 2.13	Scenario E (lots of MR & EO 2.01
Forest Value (averaged across 5-year period) Biodiversity (avg across all taxa) Forest carbon	(baseline)	(lots of EASR)	(lots of EALR)	(lots of MAMS)	(lots of MR & EO
Biodiversity (avg across all taxa)	(baseline) 1.80	(lots of EASR) 1.86	(lots of EALR) 1.83	(lots of MAMS) 2.13	(lots of MR & EO 2.01
Biodiversity (avg across all taxa) Forest carbon	(baseline) 1.80 770,133T	(lots of EASR) 1.86 946,926T	(lots of EALR) 1.83 885,224T	(lots of MAMS) 2.13 1,039,536T	(lots of MR & EO 2.01 1,117,992T
Biodiversity (avg across all taxa) Forest carbon Forest products (per 1-yr period)	(baseline) 1.80 770,133T 5.5 MMBF	(lots of EASR) 1.86 946,926T 4.1 MMBF	(lots of EALR) 1.83 885,224T 5.1 MMBF	(lots of MAMS) 2.13 1,039,536T 4.2 MMBF	(lots of MR & EO 2.01 1,117,992T 3.8 MMBF
Biodiversity (avg across all taxa) Forest carbon Forest products (per 1-yr period) Net revenue (per 1-yr period)	(baseline) 1.80 770,133T 5.5 MMBF \$1.00M	(lots of EASR) 1.86 946,926T 4.1 MMBF \$426K	(lots of EALR) 1.83 885,224T 5.1 MMBF \$812K	(lots of MAMS) 2.13 1,039,536T 4.2 MMBF \$550K	(lots of MR & EO 2.01 1,117,992T 3.8 MMBF \$307K
Biodiversity (avg across all taxa) Forest carbon Forest products (per 1-yr period) Net revenue (per 1-yr period) Recreation acceptability	(baseline) 1.80 770,133T 5.5 MMBF \$1.00M 3.42	(lots of EASR) 1.86 946,926T 4.1 MMBF \$426K 3.44	(lots of EALR) 1.83 885,224T 5.1 MMBF \$812K 3.48	(lots of MAMS) 2.13 1,039,536T 4.2 MMBF \$550K 3.58	(lots of MR & EO 2.01 1,117,992T 3.8 MMBF \$307K 3.60

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Forest Value	Highest possible	Forest Value	Highest possible
Biodiversity - all taxa	2.37	Bees	1.60
Fores carbon	1.27 MT	Early seral birds	1.66
Forest products (per 1-yr period)	6.5 MMBF/yr	Late seral birds	4.01
Net revenue (per 1-yr period)	\$1.4 M/yr	Red tree voles	1.39
Resilience - density	4.04	Amphibians	3.96
Resilience - composition	4.48	Ungulates	4.13
Wildfire resistance	3.35		



### v1.2 Assessing tradeoffs among land allocation scenarios

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

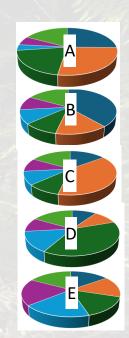
Considerable increase (>50% increase)

	2024					Modest increase (10- 50% increase) Little change (10% increase – 10%
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)	decrease) Modest decrease (10- 50% decrease)
Biodiversity (avg across all taxa)	1.80	1.86	1.83	2.13	2.01	Considerable decreas
Forest carbon	770,133T	946,926T	885,224T	1,039,536T	1,117,992T	(>50% decrease)
Forest products (per 1-yr period)	5.5 MMBF	4.1 MMBF	5.1 MMBF	4.2 MMBF	3.8 MMBF	No the same
Direct/indirect jobs sustained (per 1-yr period)	~62 jobs	~46 jobs	~58 jobs	~47 jobs	~43 jobs	The
Net revenue (per 1-yr period)	\$1.0M	\$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	B
Wildfire resistance	2.43	2.42	2.43	2.57	2.44	
bees	0.76	0.79	0.80	0.77	0.87	c
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	

### 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
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Wildfire resistance	2.43	2.42	2.43	2.57	2.44
		1	The second	a state to the	
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

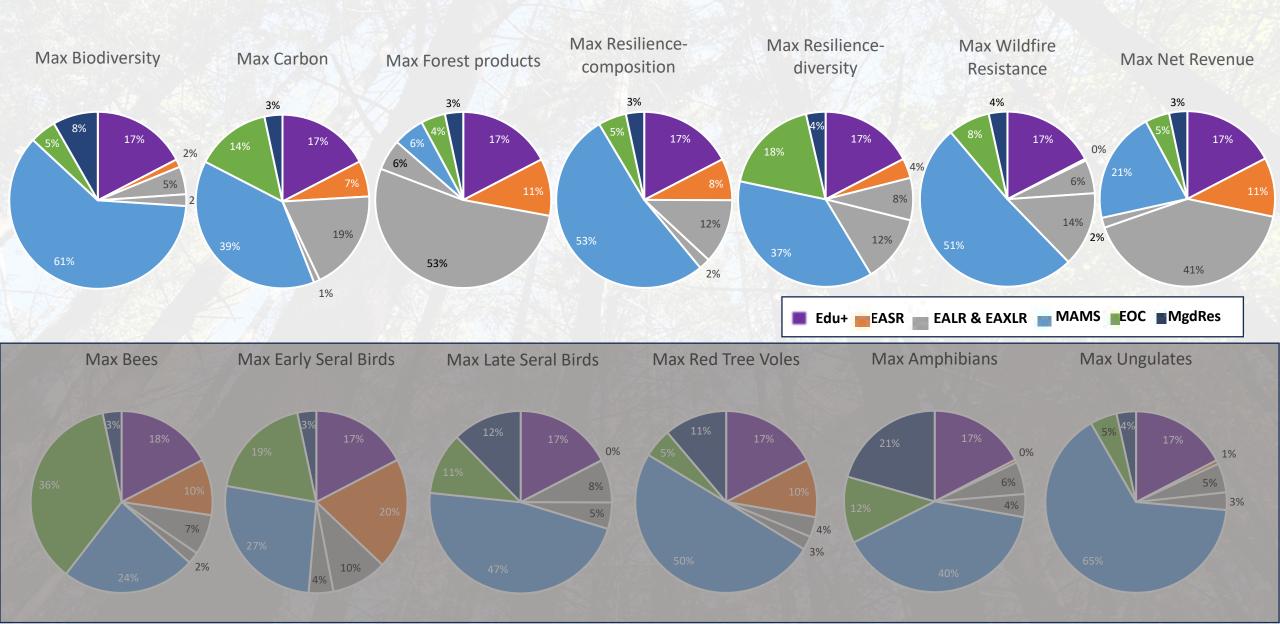
Highest Lowest



### 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	<b>\$1.4 mil</b>
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



### Moving to Round 2 of Modeling

### • Four questions:

Which of the 5 scenarios do you find <u>most preferable</u>, and why?
 Which of the 5 scenarios you find <u>least preferable</u>, and why?
 <u>Which additional scenario</u> would you like to see explored in Round 2?
 <u>What values</u> would you most like to see <u>increased or decreased</u>?

 Is there any additional information that would help you decide what scenario would be best for the future of the McDonald-Dunn?

# **Remaining Tasks**

## **Plan Content**

- 1. Consider age threshold for tree harvest
- 2. Revisit guidelines for managing *Ecosystems of Concern*

#### 3. Writing

- Refine sections on history of ownership and land use, protection of cultural resources, tribal engagement, and culturally significant species
- Refine sections on volunteering and community partnerships, interpretation and education, and communication strategies
- Refine section on current forest conditions, timber harvest schedule, anticipated future forest conditions, and graph of harvest volume
- Write section describing additional potential sources of revenue
- Revisit section describing *biodiversity*
- Reduce redundancy between sections on *wildfire (threat to forest health)* and WUI
- 4. Revisit monitoring plans
- 5. Review and refine

### Plan Content - #1

 CoF Interim Dean Anthony wrote 2 memos in 2019 about older trees and stands (e.g., 160-year age threshold)

... <u>The College will ... immediately enact a preliminary suite of</u> <u>measures until the new comprehensive forest plan can address</u> <u>such matters more fully</u>. This includes ceasing harvest of trees older <u>than 160 years</u>, an age identified as significant in the 2005 Forest Plan in the designation of reserve units.

### Plan Content - #2

#### Revisit guidelines for managing Ecosystems of Concern

(FEC Provisional Approval 26 September 2006) Appendix 3 Conservation and Restoration Strategy for Native Prairie and Oak Habitats

The McDonald-Dunn Forest has numerous remnants of prairie, savanna, and oak woodland scattered across its landscape. These dwindling legacies of earlier climatic conditions and land use practices still provide important ecological functions and cultural values. Part of our collective heritage, they form a historical link to the past. Active management to maintain and restore these resources is part of the mission of the College Forests, and relates to most of the seven goals stated in the Forest Management Plan. Further, active management is essential to fulfilling our educational mission by providing critical opportunities for teaching, research and demonstration.

Efforts to restore prairie and oak habitats within the Willamette Valley are accelerating in response to their long and steady decline. Quick action is needed to maintain these habitats and the wildlife they support. But these efforts are severely hampered by the lack of scientific information and practical experience in restoration and conservation. Too often, restoration projects do not include the study and monitoring needed to provide vital information on the impacts or effectiveness of restoration practices. Without that, they cannot effectively inform or direct future actions. The College of Forestry, as part the foremost natural resources research and education institution in Oregon, will take a leading role in developing and disseminating the new knowledge needed for effective adaptive management of these resources.

Creating and disseminating new knowledge needed for the Adaptive Management of legacy habitats is integral to all steps of this Strategy for conserving and restoring savanna and prairies legacies in McDonald-Dunn Forest. The strategy has two steps: first, focus on **retaining and conserving** the most at-risk and highest value components of ecological and cultural diversity across the Forest. Key initial activities include identification and release of legacy savanna oak trees and the delineation and protection of areas of high-quality remnant prairies. The second step involves more intensive projects to **improve and restore** broader ecological and/or cultural functions of oak savannas and prairie habitats at specific sites designated for this purpose.

The College of Forestry is an important stakeholder in efforts to maintain and restore oak savannas and prairie habitats. Through this Strategy, OSU College of Forestry intends to:

- conserve and then begin to restore the ecological functions and cultural values of some of the remnant prairie, savanna and oak habitats in McDonald-Dunn Forest;
- incorporate research, teaching, and demonstration opportunities with the restoration activities; and

Restoring Oregon White Oak and Native Prairie Habitats in McDonald-Dunn Forest

Recommendations to the Forestry Executive Committee, OSU College of Forestry

#### Prepared by the Legacy Oaks Task Force and Prairie Task Force February 2008

### Plan Content - #3

Writing

- Refine sections on history of ownership and land use, protection of cultural resources, tribal engagement, and culturally significant species
- Refine sections on volunteering and community partnerships, interpretation and education, and communication strategies
- Refine section on current forest conditions, timber harvest schedule, anticipated future forest conditions, and graph of harvest volume
- Write section describing *additional potential sources of revenue*
- Revisit section on *biodiversity*
- Reduce redundancy between sections on wildfire (threat to forest health) and WUI

### **Draft Table of Contents of the New Plan – sections needing attention**

Land Acknoklwedgment			3.2 Fostering Learning Opportunities
Table of Contents			3.2.1 Long-term Research Areas
Executive Summary			
Chapter 1 - Introductory Context		3.2.2 Areas Used Extensively for Learning	
1.1 Intent of the 2024 McDonald-Dunn Forest Plan			3.2.3 Protocols for Initiating Forest Use for Research, Teaching, or Outreach
1.2 Defining the Vision, Mission, and Goals for Research and Demonstration Forests (2021)			3.3 Ensuring Economic Sustainability 3.3.1 Sustained Revenue Generation
1.3 Developing the 2024 McDonald-Dunn Forest Plan (2022-2024)			
1.4 Overview of Recent History of the McDonald-Dunn Forest (past 30 years)			3.3.2 Alternative Funding Mechanisms
1.4.1 The 1993 Plan			3.4 Forest Management Strategies
1.4.2 The 2005 plan			3.3.1 The Five Management Strategies
1.4.3 Suspension and Resumption of the 2005 Plan			3.3.2 Processes Used to Allocate Land to each Management Strategy
Chapter 2 - Site Description			Modeling: Round 1
2.1 Location of the Forest			Modeling: Round 2
2.2 Biophysical Conditions			3.3.3 Timber Harvest Schedule
2.2.1 Ecoregion			3.3.4 Anticipated Future Forest Conditions
2.2.2 Geology			3.5 Maintaining Biodiversity
2.2.3 Soils			3.5.1 Coarse-filter approach – Ensuring Structural and Compositional Diversity
2.2.4 Topography			3.5.2 Fine Filter Approach – Managing Species of Concern and their Habitats
2.2.5 Climate			3.5.3 At-risk Species
2.2.6 Hydrography			3.5.4 Management of Ecosystems of Concern
2.2.7 Vegetation			3.5.5 Management of Stand-scale Elements to Enhance Biodiversity
•Oak savanna			3.6 Threats to Forest Health
•Prairie			3.6.1 Climate Change
Riparian and Aquatic Systems			3.6.2 Invasive Species
2.3 History of Ownership and Land Use			3.6.3 Wildfire
2.3.1 Ownership and Land Use Prior to 1920			3.6.4 Insects & Pathogens
2.3.2 Ownership and Land Use 1920 - present			3.7 Human Dimensions
2.4 Cultural Resources			3.7.1 Visitor Use and Management
2.5 Land Use Zoning and Regulations			Visitor Use Dimensions and Values
2.5.1 Land Use Zoning			Visitor Use Impacts
2.5.2 Regulations			Visitor Management Framework
Oregon Forest Practices Rules			3.7.2 Wildland-Urban Interface
State and Federal Thretened and Endangered Species Regulations			3.8 Enhancing Community Engagement
2.6 Disturbance History			3.8.1 Volunteering and Community Partnerships
2.6.1 Harvest History			3.8.2 Interpretation and Education
2.6.2 Natural Disturbance History			3.8.3 Communication Strategies
2.7 Visitor Use			3.8.4 Community Science
2.7.1 Visitor Use History			Chapter 4 - Plan Implementation
2.7.2 Current Visitor Use			4.1 Roles
2.8 Current Forest Conditions			4.2 Monitoring and Reporting
Chapter 3 - New Management Paradigms			4.3 Adaptive Management to Enable Continuous Improvement
3.1 Tribal Partnerships and Engagement			Literature Cited
3.1.1 Indigenous Knowledge			• Glossary
3.1.2 Policies for Co-Stewardship		a second of the	Appendices