# McDonald & Dunn Forest Management Planning Process

Spring 2022 – Fall 2023

OSU College of Forestry McDonald-Dunn Research Forest Faculty Planning Committee Meeting #8 316 Peavy Forest Science Center or Zoom (Join Zoom Meeting) 6 February 2023, 11am-1pm

### Agenda

Meeting Purpose:

- Develop management strategy definitions
- Develop scenarios

Start Time	Activity
11:00am	Overview of recent and upcoming events
11:10am	Craft definitions for each of the 5 new 'management strategies'
11:40am	Develop 'scenarios' to be modeled
12:40pm	Revisit the draft Table of Contents for the new plan
12:55pm	Next steps
1:00pm	Adjourn





### MCDONALD-DUNN RESEARCH FOREST PLANNING PROCESS

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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 2024. This new plan will determine how the forests provide opportunities for teaching, research and outreach efforts of the College of Forestry. 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 College of Forestry research agendas, education and demonstration opportunities, and considerations of an inclusive balance of forest uses and values.

The process of developing the new management plan will involve opportunities for public input, and two committees working in tandem from spring 2022 through fall 2023.

- Public input opportunities include three Community Listening Sessions, a webform through which written comments can be provided, and an email to which written questions can be sent.
- Two committees will assist in the development of the new plan: an external Stakeholder Advisory Committee (SAC) and College of Forestry Faculty Planning Committee (FPC). Comments submitted through the webform will be forwarded to these committees.

### **Upcoming Meetings & Events:**

February 6, 2023, 11:00am – 1:00pm – 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: <a href="https://oregonstate.zoom.us/j/8948549218?pwd=Uko4L2hYNnpQU0diWlhWWGxhcFZFZ209">https://oregonstate.zoom.us/j/8948549218?pwd=Uko4L2hYNnpQU0diWlhWWGxhcFZFZ209</a>

### Past Meetings & Events:

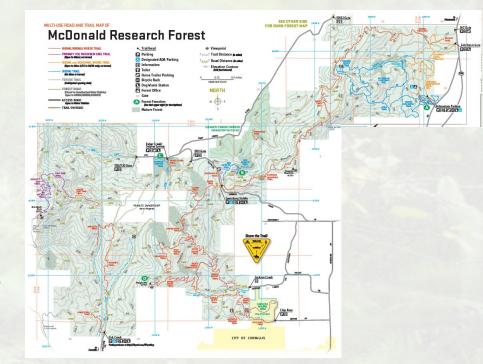
- June 14, 2022, SAC and FPC Joint Kickoff Meeting (agenda, video, meeting summary)
- Aug 30, 2022, SAC Meeting (agenda, presentation, meeting summary)
- Aug. 31, 2022, Community Listening Session (agenda, presentation, meeting summary)
- Sept. 16, 2022, Faculty Planning Committee Meeting (agenda, presentation, meeting summary)
- · Sept. 20, 2022, Stakeholder Advisory Committee Meeting (agenda, presentation, video recording, meeting summary)
- Oct. 11, 2022, Faculty Planning Committee Meeting (agenda, presentation, video recording, meeting summary)
- Oct. 25, 2022, Faculty Planning Committee Meeting (agenda, presentation, video recording, meeting summary)
- Nov. 7, 2022, Community Listening Session (agenda, presentation, video recording, meeting summary)
- Nov. 22, 2022, Faculty Planning Committee Meeting (agenda, presentation, video recording, meeting summary)
- Dec. 5, 2022, Stakeholder Advisory Committee (agenda, presentation, video recording, meeting summary)
- Dec. 6, 2022, Faculty Planning Committee 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.
- Dec. 13, 2022, Stakeholder Advisory Committee Meeting (agenda, video recording, meeting summary)
- Dec. 20, 2022, Faculty Planning Committee Meeting (agenda, presentation, video recording, meeting summary)
- Jan. 18, 2023, Stakeholder Advisory Committee (agenda, presentation, video recording)
- Jan. 23, 2023, Faculty Planning Committee Meeting (agenda, presentation, video recording)

SUBMIT YOUR COMMENTS	SUBMIT YOU	R QUESTIONS	STAY CONNECTED
READ PUE	BLIC COMMENTS	HISTORIC DOCUMENTS - MCDONALD 2004-P	

## **Upcoming Events**

• Field Tour

- one weekday afternoon and one weekend morning in Feb or early March
- scheduling poll to ID best options
- o any preferences on issues to view/discuss?
- Academic User Listening Session
  - Faculty, staff, students
  - Intent of better understanding constraints in using the forest for R/T/O
  - Will be scheduled for late Feb late March
  - One during the workday and one in the evening; both hybrid



## **Overarching Principles**

McDonald-Dunn Research Forests Overarching Principles Guiding New Forest Management Plan - Working Draft

Each principle described below reflects the Vision/Mission/Goals identified for the Research Forests plus input received during the development of the McDonald-Dunn Forest management plan from the Stakeholder Advisory Committee (SAC), Faculty planning Committee (FPC), or the general public between June and December 2022. Each principle is written so as to provide overarching suggestions for the management of the McDonald-Dunn Research Forest in the context of the three missions of the College of Forestry Research Forests.

### FOUNDATIONAL PREMISES

• Operate as an actively managed forest that advances the forestry profession by informing best practices in all aspects of forest management. The McDonald-Dunn Research Forest (hereafter "forest") is a working forest that provides opportunities for research, teaching, and outreach while providing social and cultural benefits to a variety of users including the College of Forestry, Oregon State University, and the surrounding community.

• Serve as a demonstration forest that provides diverse research and learning opportunities for students and the public, while being open for public use. The forest will provide learning opportunities on all aspects of active forest management, demonstrating principles associated with sustainably managing forests for multiple values. The forest will also provide a wide variety of use values to the public.

• Be adaptive and accountable. Feasible monitoring expectations will be built into the management plan to enable adaptive management. The plan will incorporate enough flexibility to allow for adjustments over time in response to unforeseen opportunities and constraints as well as new information produced on the College Forests and elsewhere.

### CREATE LEARNING OPPORTUNITIES

• Provide opportunities to conduct innovative research on emerging issues. The forest will be managed so as to create opportunities to conduct research on the role that managed forests can play in the production of and trade-off between a wide variety of ecosystem services, from the genetic to the ecosystem to the social scale.

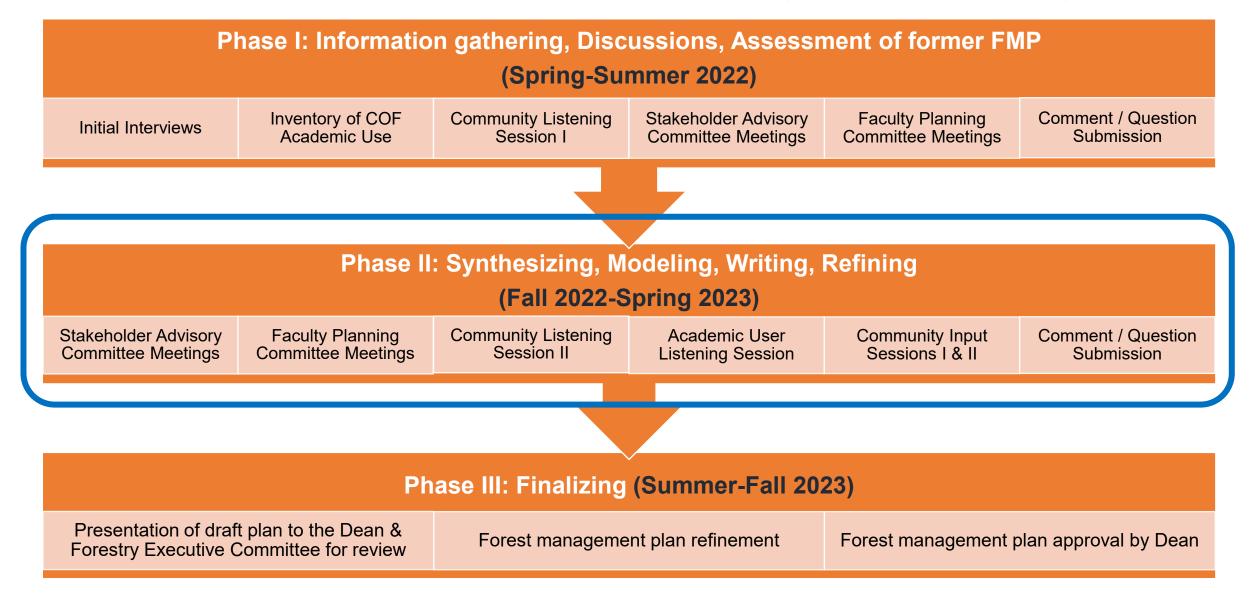
• Utilize creative approaches to monitor trends over time. Inventory and monitoring efforts will seek to incorporate opportunities to pair traditional inventory and monitoring approaches with emerging technology to ensure accuracy and cost-efficiency, while also creating opportunities for research and education.

• Foster public awareness and understanding of sustainable forest management.

Interpretation of management and research actions, coupled with outreach on the forest, will

seek to promote broader understanding and awareness of the role of actively managed forests to produce and support resilient ecosystems, forest products, and healthy communities.

### **McDonald & Dunn Research Forests Management Planning Process**



### **McDonald & Dunn Research Forests Management Planning Process**

PHASE 1	INFORMATION GATHERING, DISCUSSIONS, ASSESSMENT OF 2005 PLAN		
1a	Information Gathering		
1b	Discussions, Assessment of 2005 Forest Plan		
PHASE 2	SYNTHESIZING, MODELING, REFINING, WRITING		
2a	Synthesizing		
2b	Modeling Refining		
2c	Writing		
PHASE 3	PRESENTING, REFINING, FINALIZING		

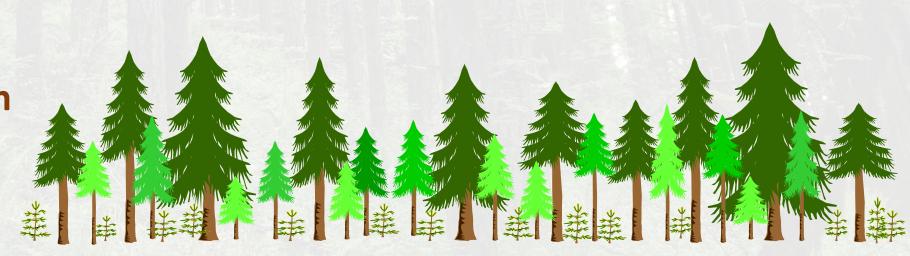
[Compact overview of the plan development process]

### **McDonald & Dunn Research Forests Management Planning Process**

PHASE 2	SYNTHESIZING, MODELING, REFINING, WRITING	
2a	Synthesizing	
	SAC meetings -write synthesis document to share with FPC -identify new 'management strategies' & 'scenarios' -consider structure & components of the new plan <u>FPC meetings</u> -write overarching principles document to share with SAC -identify new 'management strategies' & 'scenarios'	Detailed view of Phase 2 of the plan development process
	-consider structure & components of the new plan	
2b	Modeling, Refining	
	Modeling Evaluation of merits of each scenario (SAC, FPC, Community Input Session I)	
	Modeling Evaluation of merits of each scenario (SAC, FPC, Community Input Session II)	
2c	Writing	
	Drafting of chapters (various work groups and individuals)	

### **Defining each new 'Forest Management Strategy'**

- A. Even-aged, short rotation
- **B. Even-aged, long rotation**
- C. Multi-aged, multi-species
- **D.** Mature
- **E.** Restoration



### **Defining each new 'Forest Management Strategy'**

	Even-aged short rotation	Even-aged, long rotation	Multi-aged, multi- species	Mature	Restoration
Overview	Even-aged plantations of Douglas-fir (or other climatic-appropriate species) will be established and managed to be financially competitive by maximizing yields of wood products valuable for domestic mills.	Even-aged forests of Douglas-fir (or other climatic-appropriate species) will be established and managed to provide older forest conditions and produce high quality wood for domestic mills.	Multi-aged, mixed-species forests of primarily Douglas-fir will be established and managed using <u>shelterwood-with- retention</u> and <u>group-selection with</u> <u>variable retention</u> regeneration harvests with the intent to create openings, regenerate new age classes of trees, and maintain structural diversity and visual aesthetics. Douglas-fir will be the primary tree species; other native tree species will be encouraged.	These areas will be managed with a light touch to maintain older forest structural diversity and visual aesthetics. This management strategy basically allows and follows forest succession developmental processes with little human intervention.	Restoration efforts will be undertaken in native grasslands, oak savanna, oak woodlands, and aquatic systems. Two strategies will be employed: (1) retain and conserve the most at-risk and highest value components of ecological and cultural diversity, and (2) use intensive efforts to improve and restore broader ecological and/or cultural functions at specific sites.
Stand establishment	Planted seedlings will be from the best genetically selected material available for timber production but will also consider genetic seed sources adapted to a changing climate. Planting densities will be such as to avoid the need for precommercial thinning. Competing vegetation will be managed to minimize growth loss from competing vegetation for the first 1-3 years.	Planted seedlings will be from the best genetically selected material available for timber production but will also consider genetic seed sources adapted to a changing climate. Initial stocking rates will be appropriate for the site with enough established trees to accommodate multiple commercial thins over the rotation. Competing vegetation will be managed to minimize growth loss from competing vegetation for 1-3 years, and then will allow competing vegetation to grow.	Shelterwood-with-retention - Group-selection with variable retention - regeneration will occur in small (1.5-4.0 acre) openings. Harvests will retain individual trees, clumps of thinned and unthinned trees, no-touch areas, and openings of varying size (x.x-x.x acres). Regeneration may be from planted seedlings (both conifer and hardwoods) or natural regeneration. Vegetation management will minimize growth from competing vegetation for the first 1-2 years (or as needed to insure free-to- grow seedlings), and then allow competing vegetation to grow.	Active conifer and hardwood regeneration efforts may occur under limited circumstances (e.g., large-scale natural disturbances such as windstorms or wildfires) or allowed to regenerate on their own from natural seeding.	In oak savanna and oak woodland areas designated to receive intensive restoration efforts, oaks may be purposefully established at appropriate densities along with other native vegetation that historically occurred in these ecosystems.

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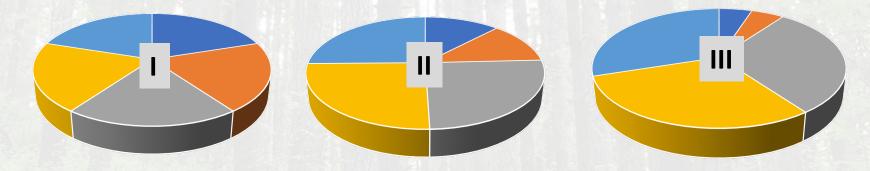
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## What is a 'scenario'?

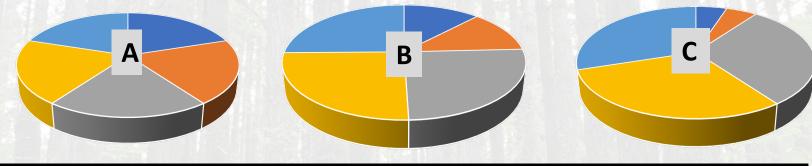
 Here are some example scenarios, reflecting varying proportions of each management strategy:



- Each management strategy provides slightly different ecosystem services
- A comparison of *scenarios* will enable evaluation of tradeoffs

## **Evaluating the merits of each 'scenario'**

• Example scenarios reflect varying proportions of *management strategies*:



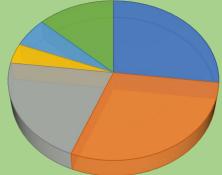
Value	Scenario A	Scenario B	Scenario C
Biodiversity	Low	High	Moderate
Carbon storage	Moderate	High	Moderate
Revenue	High	Low	Moderate

## **Evaluating the merits of each 'scenario'**

What values would we want to evaluate as we discuss tradeoffs among *management strategies?* 

Value	Relevant metrics	
Biodiversity		
Carbon storage		
Revenue		B
Resilience		
?		
?		
?		

## **Developing relevant 'scenarios'**



- What are our desired future conditions?
- What advantages are there to having more or less acreage of each 'management strategy'?

	Advantages of having more	Advantages of having less
Even-aged, short rotation		
Even-aged, long rotation		
Multi-aged/multi-species		
Mature/Reserve		
Restoration		

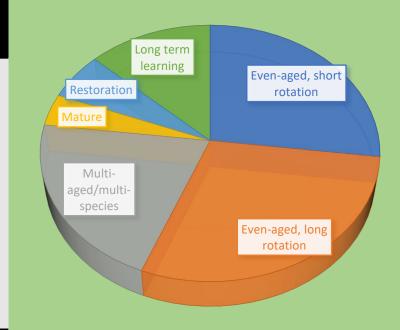
## **Evaluating the merits of each 'scenario'**

• What characteristics would we expect to increase/decrease as we vary the proportions of each "management strategy"?

Value	Even aged, short rotation	Even aged, long rotation	Multi Age Multi spp	Mature/ Reserve	Restoration	
Age class distribution						
Biodiversity						
Carbon storage						
Revenue						
Resilience (SDI)						
Water yield						
?						

### **Potential scenarios, AKA proportions of 'Management Strategies'**

Proportion	Feasible ranges	Scenario A	Scenario B	Scenario C
Even-aged, short rotation	5-40%	27%		
Even-aged, long rotation	5-40%	29%		
Multi-aged/multi-species	5-40%	21%		
Mature	5-10%	4%		
Restoration	5-10%	6%		
Long term learning	13-20%	13%		
TOTAL		100%		



### Ramification of future acquisition – 2x modeling

			current conditions			
	Management Strategy	feasible ranges	(scenario A)	scenario B	scenario C	scenario D
ship	even-aged, short rotation	5-40%	27			
ers	even-aged, long rotation	5-40%	29			
Ň	multi-aged, multi-species	5-40%	21			
ť	mature	5-10%	4			
1 E	restoration	5-10%	6			
3	long-term learning	10%	13			
			100	0	0	0
c	even-aged, short rotation	5-40%	adjusted			
	even-aged, long rotation	5-40%	adjusted			
uisitio	multi-aged, multi-species	5-40%	adjusted			
S	mature	5-10%	adjusted			
Ŧ	restoration	5-10%	adjusted			
Š	long-term learning	10%	adjusted			
			0	0	0	0

