McDonald & Dunn Forest Management Planning Process

Spring 2022 – Fall 2023

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

Agenda

Meeting Purpose:

- *Finalize underlining principles and definitions for each 'management strategy'*
- *Define criteria used to evaluate tradeoffs among 'scenarios'*
- *Describe opportunities created by each management strategy*

Start Time	Activity
11:00am	**Welcome & overview of upcoming events**
11:05am	**Finalize guidelines/definitions for the 5 new 'management strategies'**
11:30am	**Revisit criteria to be used to evaluate tradeoffs among 'scenarios'**
12:00pm	**Revisit matrix of opportunities created by each 'management strategy'**
12:30pm	**Revisit draft Table of Contents for the new plan**
12:50pm	**Next steps**
1:00pm	**Adjourn**

MCDONALD-DUNN RESEARCH FOREST PLANNING PROCESS

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 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:

- March 20, 2023, 11:00am – 1:00pm – Faculty Planning Committee Meeting (agenda, 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/8948549218?pwd=Uko4L2hYNnpQU0dlWlhWWGxhcFZFZz09
- March 21, 2023, 5:30 - 7:00pm – Open Forum – A listening session for faculty, staff, and students who use the forests for research, teaching, or outreach
- March 22, 2023, 8:30 - 10:00am – Open Forum – A listening session for faculty, staff, and students who use the forests for research, teaching, or outreach

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, meeting summary)
- Jan. 23, 2023, Faculty Planning Committee Meeting (agenda, presentation, video recording, meeting summary)
- Feb. 6, 2023, Faculty Planning Committee Meeting (agenda, presentation, video recording, meeting summary)
- Feb. 20, 2023, Faculty Planning Committee Meeting (agenda, presentation, video recording, meeting summary)
- Feb. 25, 2023, SAC and FPC Joint Field Tour
- Mar. 1, 2023, Stakeholder Advisory Committee Meeting (agenda, presentation, video recording, meeting summary)
- Mar. 6, 2023, Faculty Planning Committee Meeting (agenda, presentation, video recording)

SUBMIT YOUR COMMENTS

SUBMIT YOUR QUESTIONS

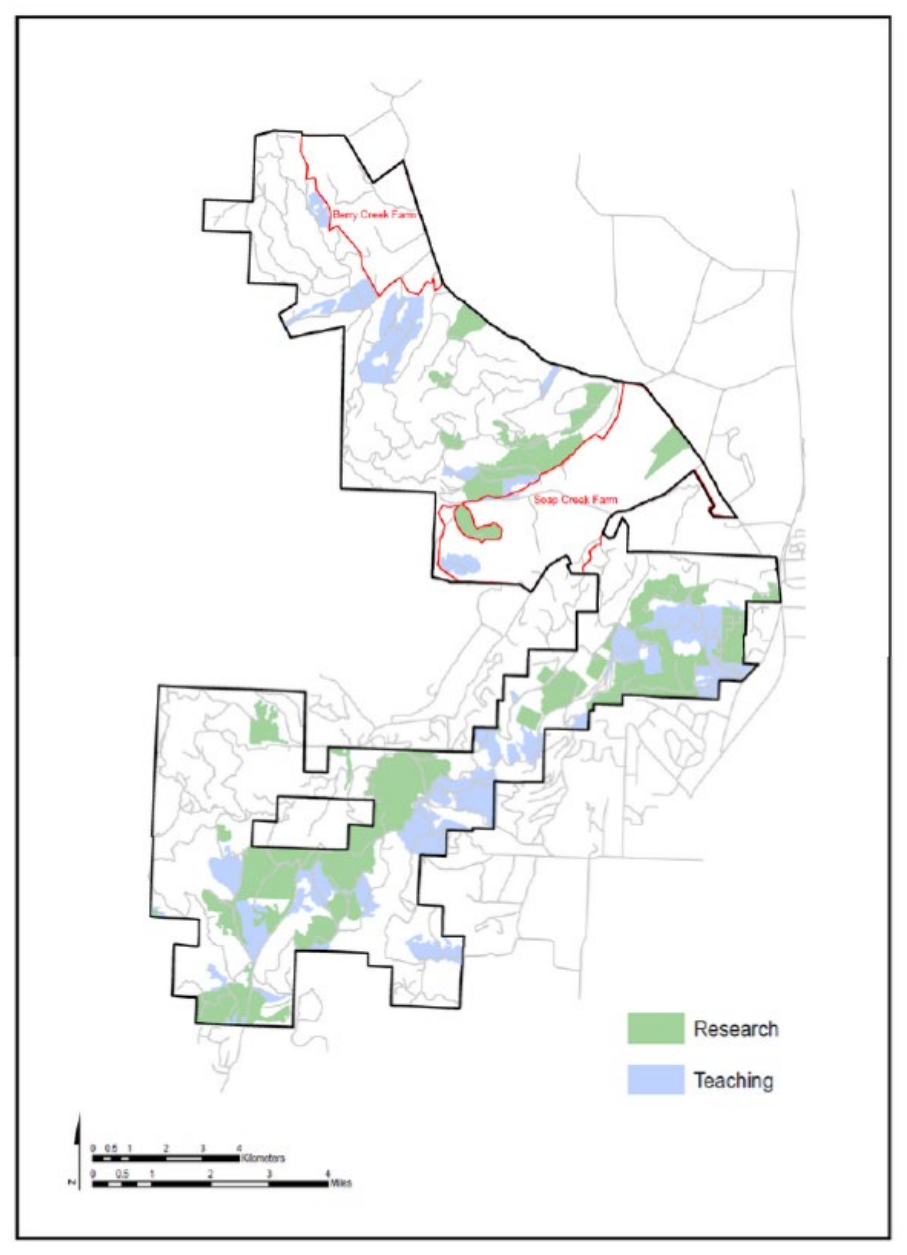
STAY CONNECTED

READ PUBLIC COMMENTS

HISTORIC DOCUMENTS - MCDONALD-DUNN RESEARCH FOREST PLANNING 2004-PRESENT

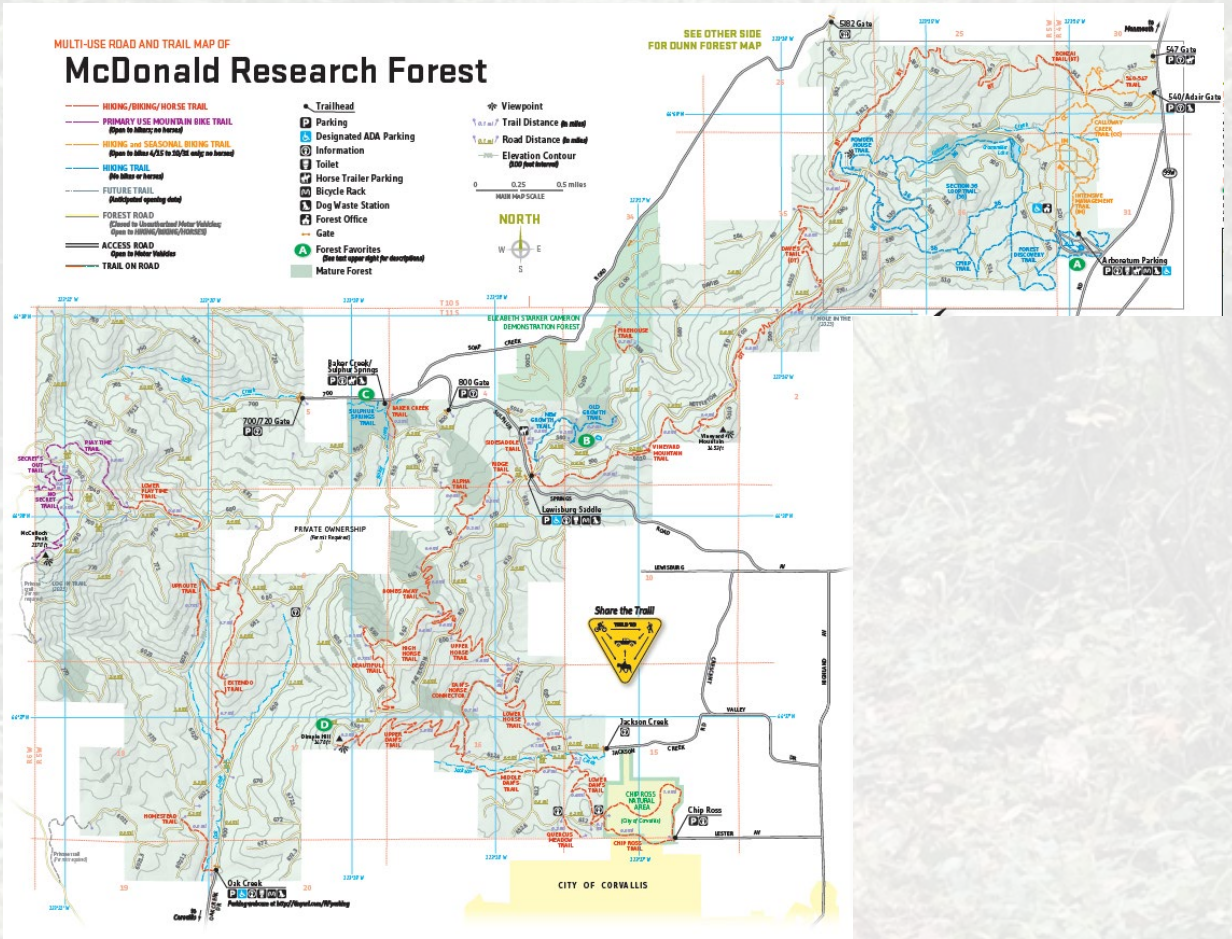
Upcoming Events

- Academic User Listening Session [Open Forums]
  - For faculty, staff, & students who use or *could* use the forests for learning
  - Intent
    - Understand which regions are used for R/T/O
    - Understand constraints in using the forest for R/T/O
  - Hybrid drop-in sessions
    - 21 March 5:30-7pm
    - 22 March 8:30-10am
  - Advertised to department heads across all colleges

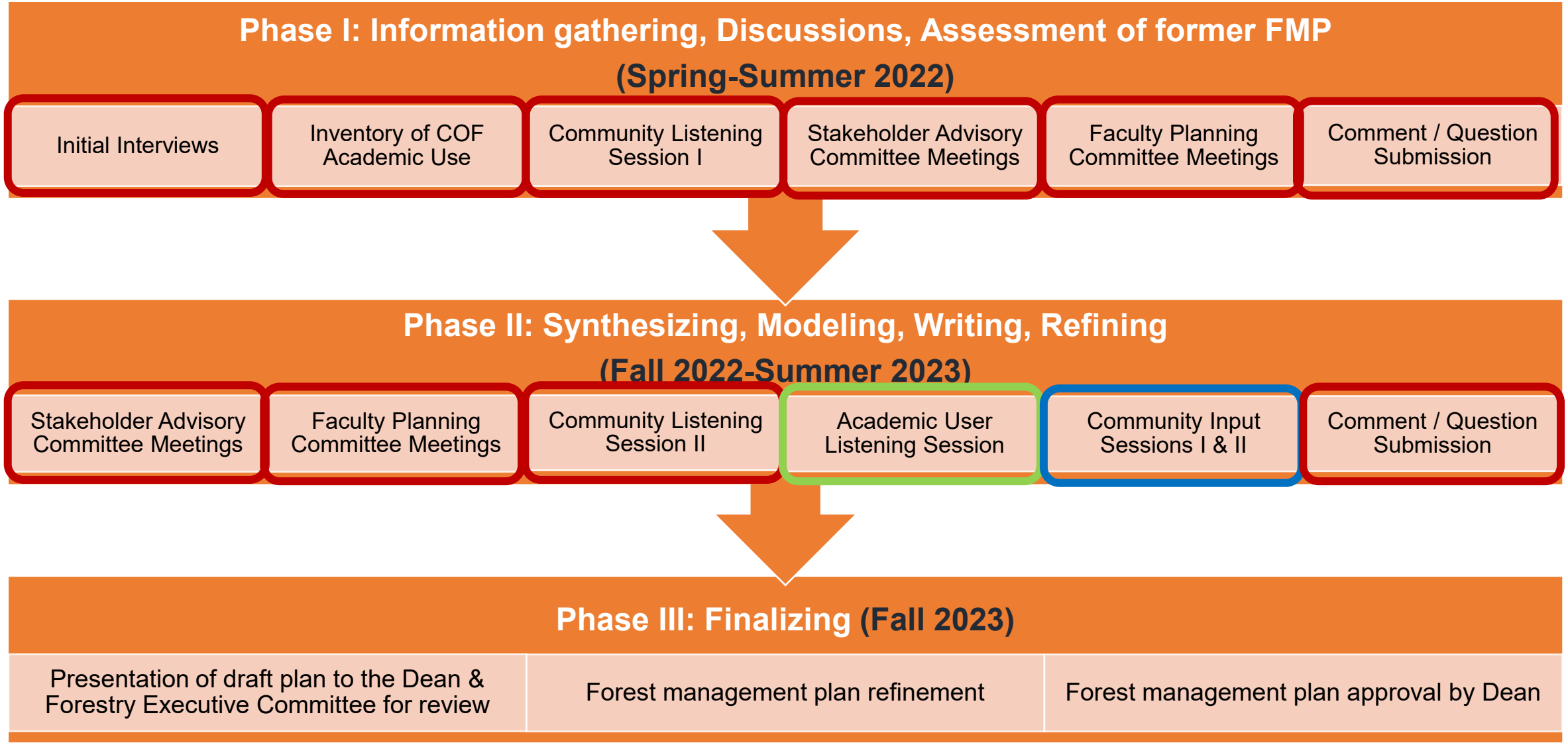


Upcoming Events

- SAC-FPC Field Tour
  - weekday option: Mon, March 27, 1-5pm



McDonald & Dunn Research Forests Management Planning 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*
	FPC meetings *-write overarching principles document to share with SAC* *-identify new 'management strategies' & 'scenarios'* *-consider structure & components of the new plan*
2b	**Modeling, Refining**
Round 1	Modeling Evaluation of merits of each scenario (SAC, FPC, Community Input Session I)
Round 2	Modeling Evaluation of merits of each scenario (SAC, FPC, Community Input Session II)
2c	**Writing**
	Drafting of chapters (various work groups and individuals)

Detailed view of Phase 2 of the plan development process

Defining each new ‘Forest Management Strategy’

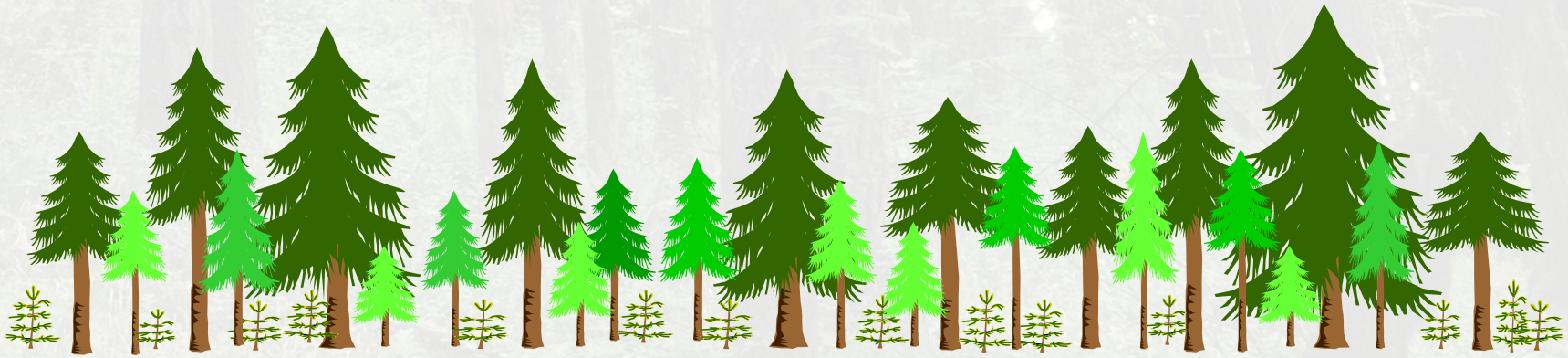
A. Even-aged, short rotation

B. Even-aged, long rotation

C. Multi-aged, multi-species

D. Managed reserves

E. Ecosystems of concern



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

[version after FPC meeting on 6 March 2023]

	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 *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.	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.	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.

	Even-aged short rotation	Even-aged long rotation	Multi-aged multi-species	Managed reserves	Ecosystems of concern
Stand establishment	Employs intensive site preparation following industry standards (prescribed fire and vegetation control) for ease of planting and early 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 sufficient to meet the Oregon Forest Practices Act and with the intent to ~~but~~ avoid the need for precommercial thinning, but PCT would be allowed if warranted. Spacing will be more or less ~~intentionally~~ uniform. Competing vegetation will be managed to minimize growth loss of tree seedlings for the first 1-5 years until trees are free-to-grow, and then competing vegetation will be allowed to grow. ~5% of hardwood trees and/or resprouts will be identified and purposely left free to grow in the understory throughout the rotation.	Employs adequate site preparation to plant and establish a stocked young stand. 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 with an eye to longer rotations. Initial stocking rates will be appropriate for the site conditions with enough established trees to accommodate multiple commercial thinning harvests within the rotation, with the intent to avoid PCT but allowing it if warranted. Spacing can be variable and appropriate to the site. Competing vegetation will be managed with less herbicide than short rotations, with the intention of limiting tree seedling mortality during the first 1-3 years, and then competing vegetation will be free to grow. ~10% of hardwood trees and/or resprouts will be identified and purposed left free to grow in the understory throughout the rotation.	A combination of pile burning, broadcast burning, and limited surface herbicide treatments will be used for site preparation in understory and/or small openings. Seedlings will be interplanted to augment natural regeneration of conifers from seed and hardwoods from both sprouts and seed, with an eye to species richness and genetic variability. *Shelterwood with residuals* will maintain an appropriate overstory density to allow understory trees to grow. Overstory trees may be spaced uniformly or variably, dictated by site, stand, and windthrow risk conditions. *Group-selection harvests* will contain small (1.5-4.0 acre) openings. *Variable retention regeneration harvests* will retain individual trees, clumps of thinned and unthinned trees, and/or no-touch areas that are dictated by site, stand, and windthrow risk	Typically, stands will regenerate continuously on their own from natural seeding. Active conifer and hardwood regeneration efforts may occur in areas subjected to large-scale disturbances (e.g., windstorms, ice storms, or wildfires), or when adding acres to the reserve base. Invasive vegetation will be managed to ensure establishment and growth of tree seedlings and culturally significant species.	*Oak savanna/woodlands* – in areas designated to receive intensive restoration treatment, oaks may be purposefully established through seed or seedlings at appropriate densities along with other native and culturally significant vegetation that historically occurred in these ecosystems. Site preparation with prescribed fire and/or judicious surface herbicide use may be required. *Meadows* – may require site preparation with prescribed fire and/or judicious surface herbicide use and seeding of other appropriate native herbaceous vegetation. *Riparian systems* - in areas designated to receive small-scale restoration treatment, limited harvests will occur with site preparation and planting at appropriate densities along with other native vegetation that historically occurred in these ecosystems.

	Even-aged short rotation	Even-aged long rotation	Multi-aged multi-species	Managed reserves	Ecosystems of concern
Intermediate treatments	Thinning and other intermediate stand treatments will only be done if justifiable economically or if needed to respond to an unplanned disturbance event to maintain the health of each the stand. ~5% of hardwoods would be retained in thinning treatments.	The first commercial thinning will occur as dictated by stand conditions, likely around 28-34 years of age. Additional commercial thinning entries will be done until final harvest using a variety of thinning approaches. The last thinning will occur no later than 10-15 years before final harvest. ~10% of hardwoods would be retained in thinning treatments	*Shelterwood-with-residuals* - understory trees may be commercially thinned when needed (likely 30-40 years of age) depending on the overstory density. If overstory trees die, replacement trees may be assigned from the understory cohort to maintain the two-storied canopy structure over time. *Group-selection* – Periodic thinning will be used to increase vertical and horizontal structure, maintain health, and provide interim income. *Variable retention regeneration harvests* – Periodic thinning will be used to increase vertical and horizontal structure, maintain health, and provide interim income.	All areas may receive intermediate treatment under limited circumstances: • Treatment of invasive species • Removal of individual trees due to safety concerns • Prescribed burning to emulate historical processes and for research purposes. Areas newly added to the reserve base may need intermediate treatment under limited circumstances: • Irregular thinning or creation of gaps to promote characteristics of historical late-seral forest conditions typical of the region and in light of climate change	*Oak savanna/woodlands* - treatments could include prescribed burning, control of invasive plants, and/or precommercial thinning to remove young invading conifers. *Meadows* – treatments could include repeat prescribed burning and control of invasive plants and invading conifers. *Riparian systems* – treatments could include additional structural thinning, repeat prescribed burning, and control of invasive plants. *Aquatic systems* – In-stream and pond treatments could include removal of invasive species, including invasive aquatic plants.

	Even-aged short rotation	Even-aged long rotation	Multi-aged multi-species	Managed reserves	Ecosystems of concern
Stand age	Rotation lengths will be regulated primarily by age that maximizes net revenue production. Rotations will be 30-60, likely 35-45 years.	Rotations typically will be 60-90 years, with a small percentage (<10%) managed to 120 years.	*Shelterwood-with-residuals* - 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. *Group-selection* - 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. *Variable retention harvest* – Re-entry harvest will occur every 15-30 years to create 3-4 age classes.	NA. The age of the oldest trees in these stands will continue to increase over time adding to the age-class diversity across the forest.	NA. The age of the oldest trees in oak ecosystems ~~and riparian 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.
Legacy elements	Procedures will follow OFPA regulations (i.e., retain wildlife trees and CWD in harvest units >25 acres).	Procedures will exceed OFPA regulations (i.e., retain additional legacy trees, green trees, snags, and CWD).	This management system maintains abundant living and dead structure constantly within each stand in an effort to create and sustain diverse forest conditions.	NA – it is the legacy	*Oak savanna/woodlands* – old conifers with an open grown character dating to pre-settlement will be retained. *Meadows* – NA *Aquatic/riparian systems* - large old trees and big logs will be retained or enhanced both in-stream and in riparian zones.

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

[version after FPC meeting on 6 March 2023]

	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. Application of Indigenous knowledge may be incorporated in earl-seral stages of forest development for culturally important plants and animals.*	*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. Application of Indigenous knowledge may be incorporated in early-seral as well in later stage of forest development for culturally important plants and animals.*	*Manage in a way that creates learning and research opportunities about managing multi-aged and/or multi-species stands ~~to support diverse forest values recognized by a variety of cultures~~ Application of Indigenous knowledge may be incorporated in early seral as well in later stages of forest development for culturally important plants and animals.*	*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 for culturally important plants and animals.*	*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 for culturally important plants and animals.*

	Even-aged short rotation	Even-aged long rotation	Multi-aged multi-	Managed reserves	Ecosystems of concern
Opportunities created	• Offers dependable financial returns • Early-seral provid so e hunters short rotations ensure edge habitat important for some wildlife species • Short rotations allow testing & demonstration of climate adaptability using alternative genetics of Douglas-fir or other species • Enables demonstration of the longevity and character of early-seral conditions and use of prescribed fire Creates learning portunities about st operations, tion, mai compari carbon seque between Douglas-fi and alternative species	high-quality logs/wood that fills niche markets • Provides net carbon sequestration potential relative to shorter tations hetically re leg stand old trees, broadleaf shru provides habitat fo wildlife throughout the life of each stand • The variety in stand age promotes biodiversity across the landscape • Older stands fill a gap on the landscape because there are few such forests on lands under other ownership • Creates learning opportunities about managing and financing rotation lengths longer than is underburning	returns • Multi-aged stands with varying degrees of within-stand complexity will promote overall biodiversity and a broad suite of habitat conditions for wildlife • Continuous cover ensures visual aesthetics • Provides enhanced recreational portunities s net carbon ion in multi- d multi- sp • Multi- species st on the landsca because there are such forests on lands under other ownership • Creates learning opportunities about managing with complex silvicultural techniques, and investigations of operational costs and harvest costs associated with non-typical silvicultural approache and woodland owners	oration preserve future carbon markets • Allows exploration of opportunity costs and direct costs and benefits of conserving late seral conditions • Sustains relatively undisturbed conditions that promote habitat for some plant and wildlife species • Provides preferred aesthetic conditions for recreation • Net carbon sequestration will be seful for arisons arning about om inva climate climate-indu disturbances as age and tree densit increase • Provi old d benefits associated with their active management	• Enables research, teaching, and demonstration on all aspects of ecosystem toration and monitoring meadow, and quatic systems e to s incurred by re maintena ms for unique eco • Enhances bio y improving hea distinct ecosyste and at the landsc • Demonstrates pot applications of Ind knowledge • Reduces wildfire ri WUI through strate breaks in oak woo • Creates healthy e of native meadow woodlands, filli the landscape w exist on land her ownershi • Increas nse to ope nerships al entities d in restoration les learning about restoration principles, the ecology of native plants, first foods, and invasive species reduction

Replaced by a matrix (next slide)

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Opportunities Created – this is material extracted from the definition table, arranged according to 8 subject categories, in response to a suggestion from the SAC to reorganize this info

Forest Values	Even-aged short rotation	Even-aged long rotation	Multi-aged, multi-species	Managed reserves	Ecosystems of concern
Learning, training, & demonstration opportunities	Creates learning opportunities about harvest operations, regeneration, vegetation treatments, fuels management, and comparison of net carbon sequestration between Douglas-fir and alternative species; Enables demonstration of the longevity and character of early-seral conditions and use of prescribed fire; Short rotations allow testing & demonstration of climate adaptability using alternative genetics of Douglas-fir or other species	Creates learning opportunities about managing and financing rotation lengths longer than is typical; Provides training opportunities on thinning and underburning	Creates learning opportunities about managing with complex silvicultural techniques, and investigations of operational costs and harvest costs associated with non-typical silvicultural approaches; Demonstrates complex approaches for small-scale forest operations and woodland owners	Creates learning opportunities about long-term risks from invasive species, climate change, and climate-induced disturbances as trees age and tree densities increase; Provides outreach opportunities about the importance of old forests and benefits associated with their active management	Enables research, teaching, and demonstration on all aspects of ecosystem restoration and monitoring for oak, meadow, and riparian/aquatic systems; Enables learning about restoration principles, the ecology of native plants, first foods, and invasive species reduction; Demonstrates potential applications of Indigenous knowledge; Creates chance to understand costs incurred by restoration and maintenance programs for unique ecosystems
Finances	Offers dependable financial returns	Offers dependable financial returns	Offers reduced and variable financial returns	Enables exploration of non-timber benefits and preserves options for future carbon markets; Allows exploration of opportunity costs and direct costs and benefits of conserving late seral conditions	Offers opportunity to learn about costs incurred by restoration of various ecosystem types
Habitat conditions	Early-seral conditions provide habitat for some plant & wildlife species; Short rotations ensure edge habitat important for some wildlife species	Retention of more legacy elements at stand initiation (e.g., old trees, CWD, broadleaf shrubs) provides habitat for wildlife throughout the life of each stand; The variety in stand age across stands in this strategy promotes biodiversity across the McD forest	Multi-aged stands with varying degrees of within-stand complexity will promote overall biodiversity and a broad suite of habitat conditions for wildlife	Sustains relatively undisturbed conditions that promote habitat for some plant and wildlife species	Enhances biodiversity by improving health in three distinct ecosystem types and at the landscape scale
Carbon		Provides net carbon sequestration potential relative to shorter rotations	Enables net carbon sequestration in multi-aged stands and multi-species stands	Net carbon sequestration will be useful for comparisons	
Forest products	Produces logs/wood for typical markets	Produces high-quality logs/wood that fills niche markets			
Recreation & aesthetics	Early-seral conditions are preferred by some hunters; harvest units provide temporary vistas	Is aesthetically appealing	Provides enhanced recreational opportunities; Continuous cover ensures visual aesthetics	Provides preferred aesthetic conditions for recreation	
Wildfire risk	With effective site preparation, reduces surface loading within units and interrupts wildfire flow across watersheds; a short window of vulnerability as a plantation	With effective site preparation, reduces surface loading within units and interrupts wildfire flow across watersheds; a longer window of vulnerability as an older plantation prior to thinning and prescribed fire	Requires careful management of surface and ladder fuels (mechanical and prescribed fire) in order to reduce wildfire risk given the continuous forest cover created by this regime	Vulnerability to wildfire is managed by isolation from continuous fuel beds in the watershed, through treatment of adjacent units and/or fire breaks	Restoration and maintenance of meadows, savannas and woodlands reduce wildfire risk, particularly in the WUI through strategic placement; riparian management zones, in contrast, represent corridors for wildfire
Unique features provided relative to the surrounding region		Older stands fill a gap on the landscape because there are few such forests on lands under other ownership	Multi-age and multi-species stands fill a gap on the landscape because there are few such forests on lands under other ownership	Older stands fill a gap on the landscape because there are few such forests on lands under other ownership	Creates healthy examples of native meadows and oak woodlands that fill a gap on the landscape because few exist on lands under other ownership
Other					Enhances partnerships with external entities interested in restoration; Increases social license to operate

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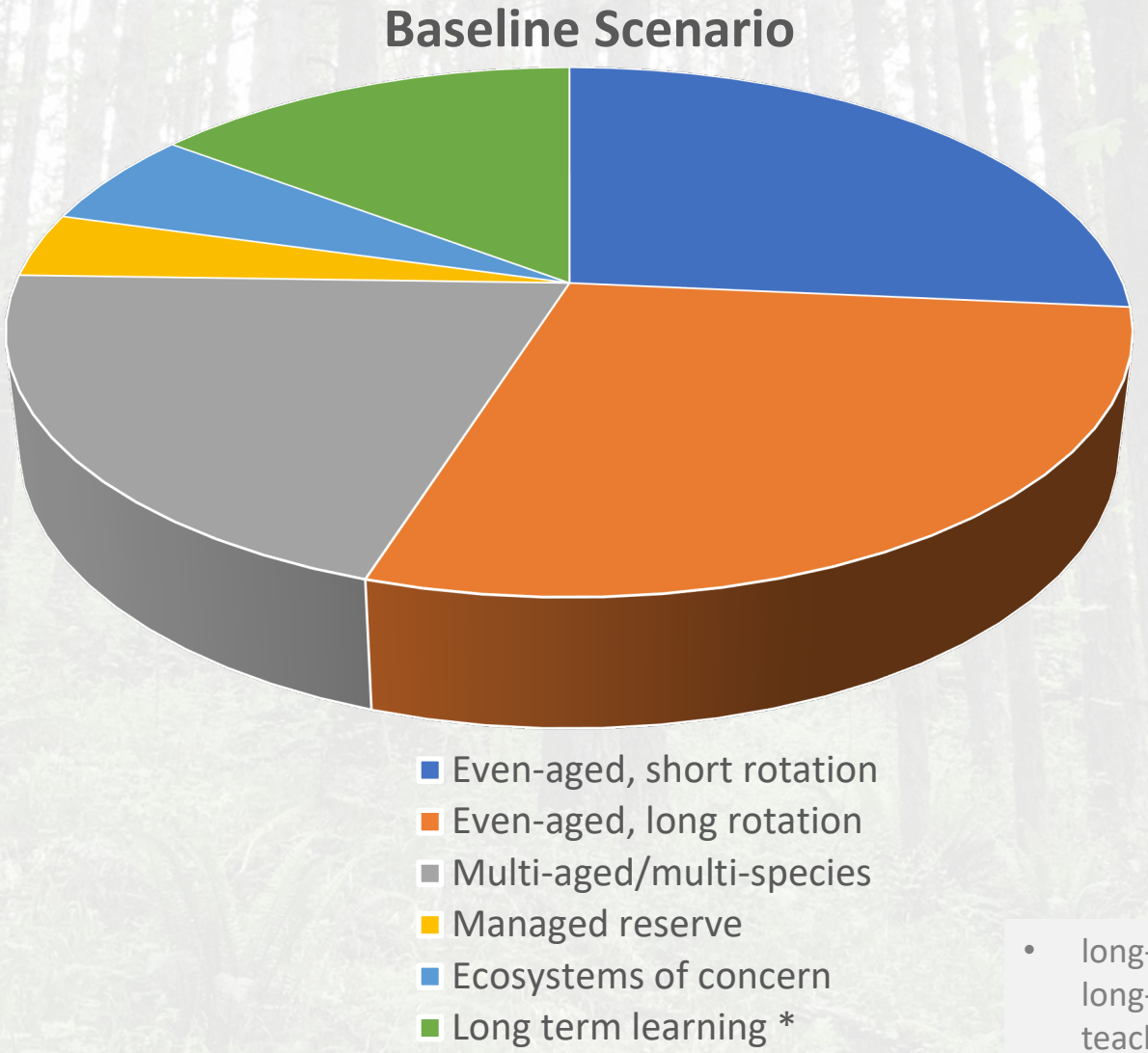
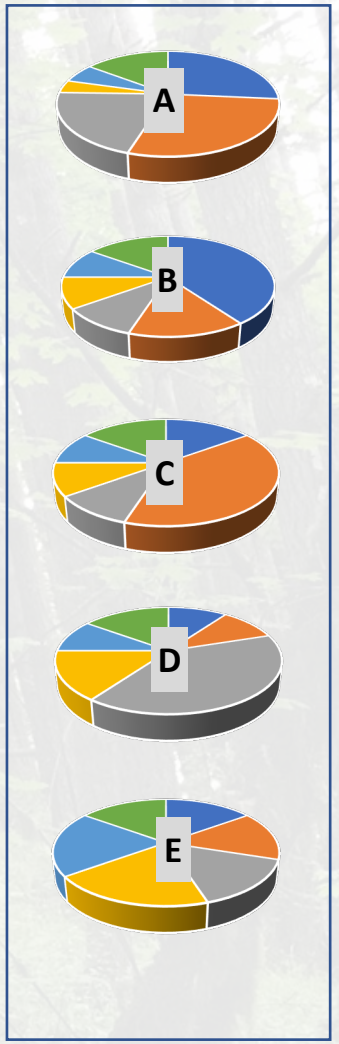
5 ‘scenarios’ discussed at the last FPC meeting

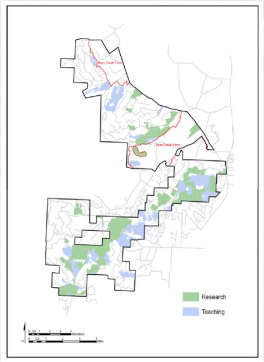




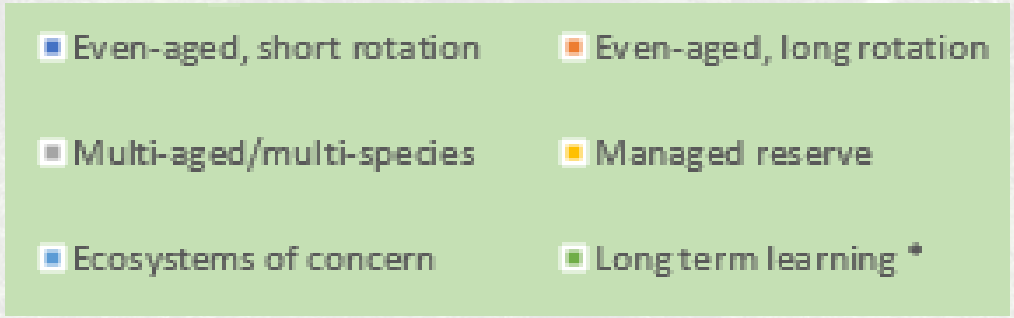
- long-term learning = acreage used for long-term research and recurring teaching and demonstrations

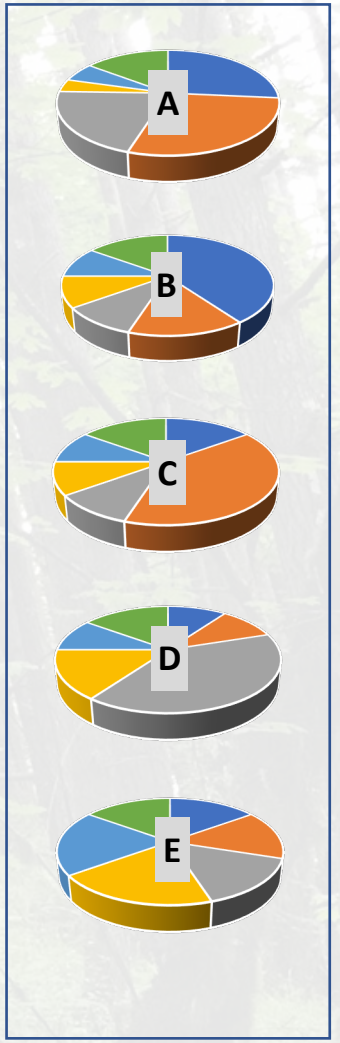
5 Scenarios to be modeled

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	27%	40%	15%	10%	15%
Even-aged, long rotation	29%	15%	40%	10%	15%
Multi-aged/multi-species	21%	10%	10%	40%	15%
Managed reserve	4%	10%	10%	15%	20%
Ecosystems of concern	6%	10%	10%	10%	20%
Long term learning *	15%	15%	15%	15%	15%
TOTAL	100%	100%	100%	100%	100%



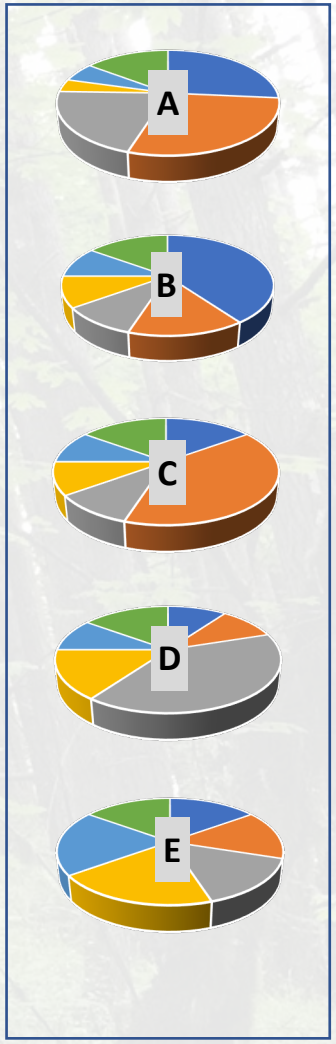
- long-term learning = acreage used for long-term research and recurring teaching and demonstrations





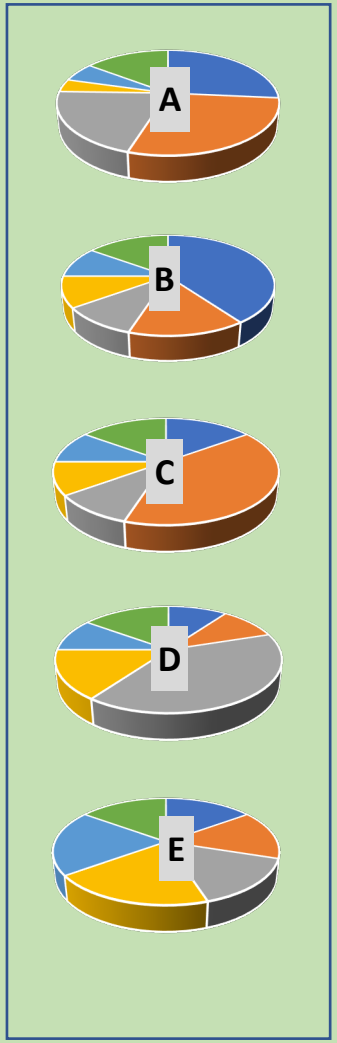
What metrics should be used to evaluate scenarios?

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					
Carbon storage					
Cultural values					
Forest products					
Recreation suitability & needs					
Resilience					
Revenue					
Wildfire risk					



Forest values to be used to evaluate the merits of each scenario

Value	Relevant metrics
Biodiversity	**Stand age class distribution** (a measure of the diversity of forest age class) **Forest cover** (a measure of habitat suitability for some species) **Tree species diversity** **Invasive species cover** **# of Species of Concern** **Snag density, diameter, and/or basal area**
Carbon storage	**Aboveground biomass** (a measure of biomass of stem wood, bark, and foliage) **Stand age class**
Cultural values	**% cover of plant species of cultural value**
Forest products	**Log diameter and length** **Total board ft and cubic ft by species; defect**
Recreation suitability & needs	**Qualitative measure of preferences for various rec users**
Resilience to natural disturbance	**Stand Density Index** (a measure of tree density and size)
Revenue	**Projected** (a dollar value projected to be earned through timber harvest & used for restoration)
Wildfire risk	**Composite index** (derived from **Canopy bulk density, Canopy base height, Canopy cover**)



Draft Table of Contents of the New Plan

Who will lead on writing each section of the New Plan?

- **Executive Summary**
- **Introductory Context**
  - I. Goals of the McDonald-Dunn Forest; desired future conditions
  - II. Development of Vision, Mission, Goals for College of Forestry Research Forests in 2020
  - III. Development of McDonald-Dunn Research Forest Plan in 2022-2023
  - IV. Overview of Recent History of the McDonald-Dunn Forest (1993 plan; 2005 plan; suspension; resumption)
- **Site Description**
  - I. Location
  - II. Biophysical Conditions
  - III. History: Ownership, Morril Act, Land Use
  - IV. Cultural Resources
  - V. Zoning, Regulations
  - VI. Harvest History and Recreation Use History
  - VII. Current Forest Conditions
- **New Management Paradigms**
  - **I. Prioritization of Opportunities for Research, Teaching, & Demonstration**
    - a. Long-term Research Projects
    - b. Dedicated Teaching Areas
    - c. Research, Teaching, & Demonstration Projects
  - **II. Forest Management Regimes that Create Learning Opportunities & Ensure Financial Sustainability**
    - a. Five Management Regimes
    - b. Timber Harvest Schedule
    - c. Future Forest Condition: Growth & Yield
    - d. Alternative Funding Mechanisms
  - **III. Incorporation of Native American Perspectives**
    - a. *TBD*
  - **IV. Maintaining Biodiversity** — **Technical workgroup**
    - a. At-risk Plants & Wildlife
    - b. Management of Wildlife Habitat
    - c. Management of Aquatic resources
    - c. Management of Vegetation Communities of Concern
    - d. Management of Legacy Trees, Snags, & Down Wood
  - **V. Managing Threats to Forest Health** — **Technical workgroup**
    - a. Climate Change
    - b. Invasive Species
    - c. Wildfire
    - d. Insects & Disease
    - e. Development (WUI)
    - f. Vandalism
  - **VI. Nurturing Human Dimensions** — **Technical workgroup**
    - a. Recreation
    - b. Cultural Heritage
  - **VII. Enhancing Community Engagement** — **FPC group effort**
    - a. Community Science
    - b. Interpretation
    - c. Communication Strategies
- **Plan Implementation** — **FPC group effort**
  - I. Roles - Research Forest Staff, Forest Executive Committee, Dean
  - II. Annual Reporting
  - III. Adaptive Management/Continuous Improvement
  - IV. Performance & Sustainability Indicators
- **Literature Cited**
- **Glossary**
- **Appendices**

Meetings of the FPC Spring Term

- We're entering a new phase, with a focus on modeling and writing
- We'll continue with biweekly meetings Spring Term
  - The entire FPC will plan to meet once per month during April, May, and June
    - Work on those components of the plan that need group discussion (red sections on previous slide)
  - The second meeting each month will be for technical work groups to work on crafting sections of the plan
    - Work on those components of the plan that need technical expertise (blue sections on previous slide)
  - We'll select a day of week/time of day through a new scheduling poll