McDonald & Dunn Forest Management Planning Process

Spring 2022 – Early 2024

OSU College of Forestry
McDonald-Dunn Research Forest Faculty Planning Committee Meeting #16
316 Peavy Forest Science Center or Zoom (Join Zoom Meeting)
31 October 2023, noon-2pm

Agenda

Meeting Purpose:

- Share information on recent and upcoming modeling and writing efforts
- Make decisions on process to be implemented to evaluate tradeoffs
- Brainstorm about monitoring efforts needed to evaluate if goals are being met

Start Time	Activity
noon	**Review where we've been and where we're going**
12:05pm	**Recap decisions made regarding metrics to be used to assess tradeoffs among land allocation scenarios**
12:10pm	**Discuss process to be used to assess tradeoffs**
12:45pm	**Recap decisions made regarding changes to the table of contents of the new plan**
1:00pm	**Discuss indicators of performance and sustainability**
1:55pm	**Next steps**
2:00pm	**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:

- October 31, 12:00 - 2:00 - FPC meeting (agenda)
  Zoom link: https://oregonstate.zoom.us/j/96772313273?pwd=TzJGT3FpYlZORm1ac2FxMjMrMGNrdz09
- November 14, 12:00 - 2:00 - FPC meeting
  Zoom link: https://oregonstate.zoom.us/j/96772313273?pwd=TzJGT3FpYlZORm1ac2FxMjMrMGNrdz09
- November 28, 12:00 - 2:00 - FPC meeting
  Zoom link: https://oregonstate.zoom.us/j/96772313273?pwd=TzJGT3FpYlZORm1ac2FxMjMrMGNrdz09
- December 12, 12:00 - 2:00 - FPC meeting
  Zoom link: https://oregonstate.zoom.us/j/96772313273?pwd=TzJGT3FpYlZORm1ac2FxMjMrMGNrdz09

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, meeting summary)
- Mar. 20, 2023, Faculty Planning Committee Meeting (agenda, presentation, video recording, meeting summary)
- Mar. 21 & 22, 2023, Academic User Listening Sessions (open forums)
- Mar. 27, 2023, SAC and FPC Joint Field Tour
- Apr. 13, 2023, Stakeholder Advisory Committee Meeting (agenda, presentation 1, presentation 2, video recording, meeting summary)
- Apr.17, 2023, Faculty Planning Committee Meeting (agenda, presentation, video recording, meeting summary)
- May 1, 2023, Faculty Planning Committee Meeting (agenda, presentation, video recording, meeting summary)
- June 12, 2023, Faculty Planning Committee Meeting (agenda, presentation, video recording, meeting summary)
- Oct. 17, 2023, Faculty Planning Committee meeting (agenda, presentation, video recording, meeting summary)

SUBMIT YOUR COMMENTS

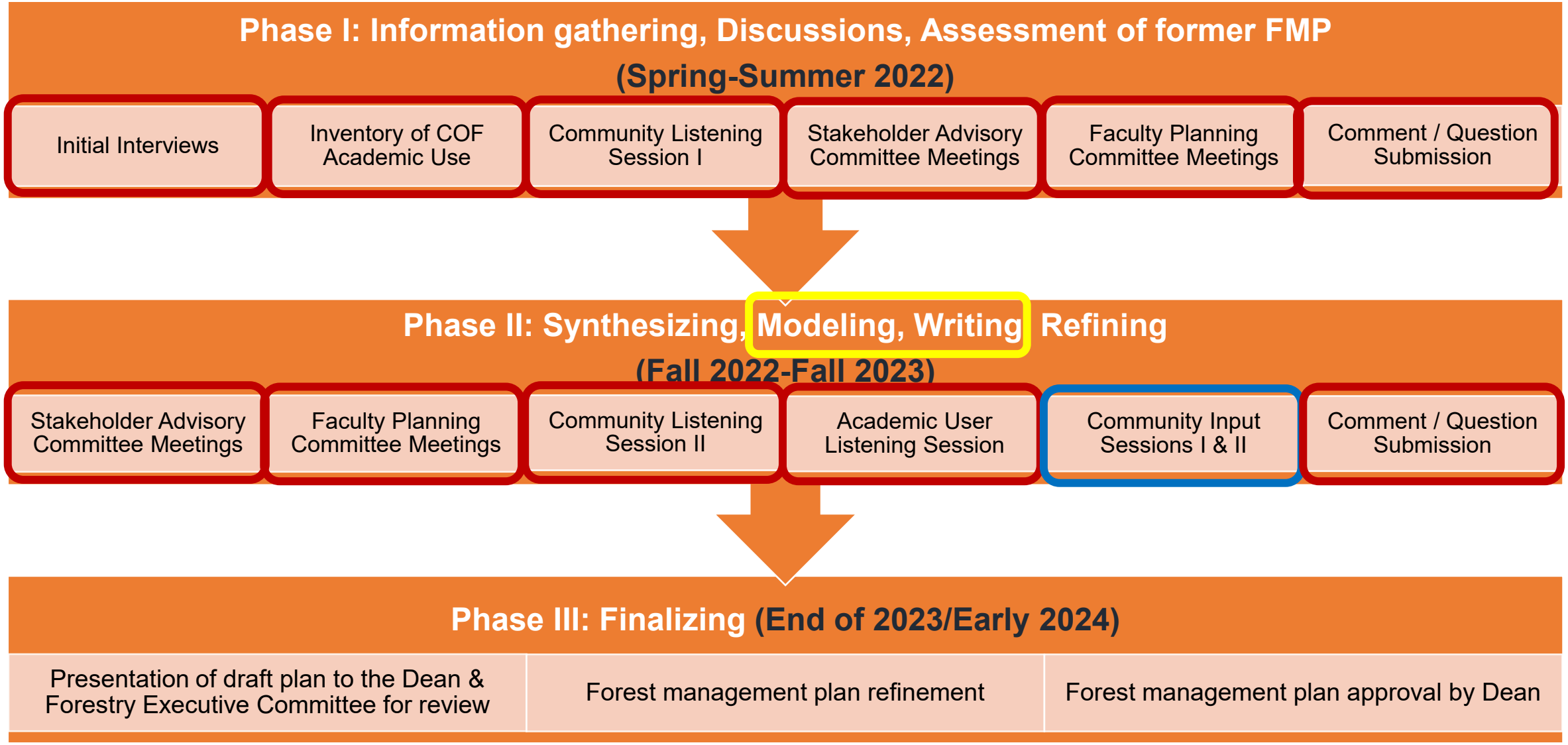
SUBMIT YOUR QUESTIONS

STAY CONNECTED

READ PUBLIC COMMENTS

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

McDonald-Dunn Research Forest Management Planning Process



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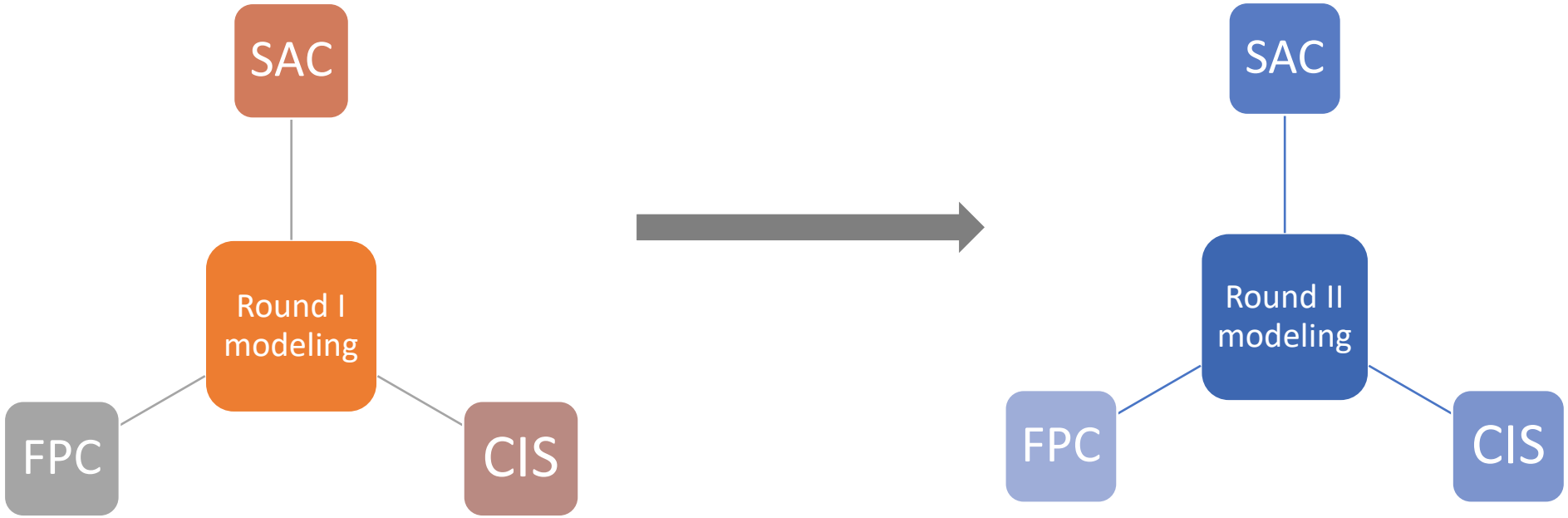


Recap: 5 new ‘Forest Management Strategies’

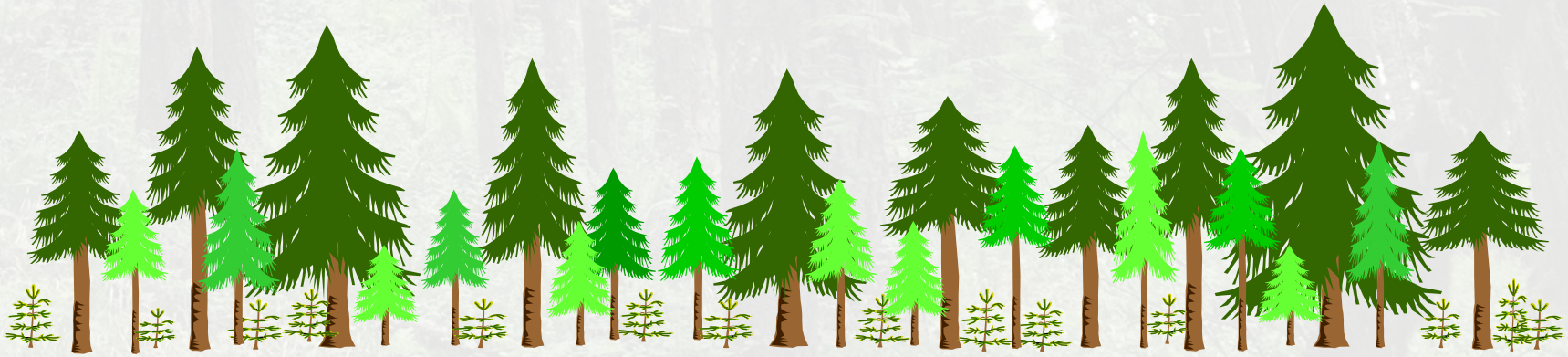
A. Even-aged, short rotation

B. Even-aged, long rotation

C. Multi-aged, multi-species

D. Managed reserves

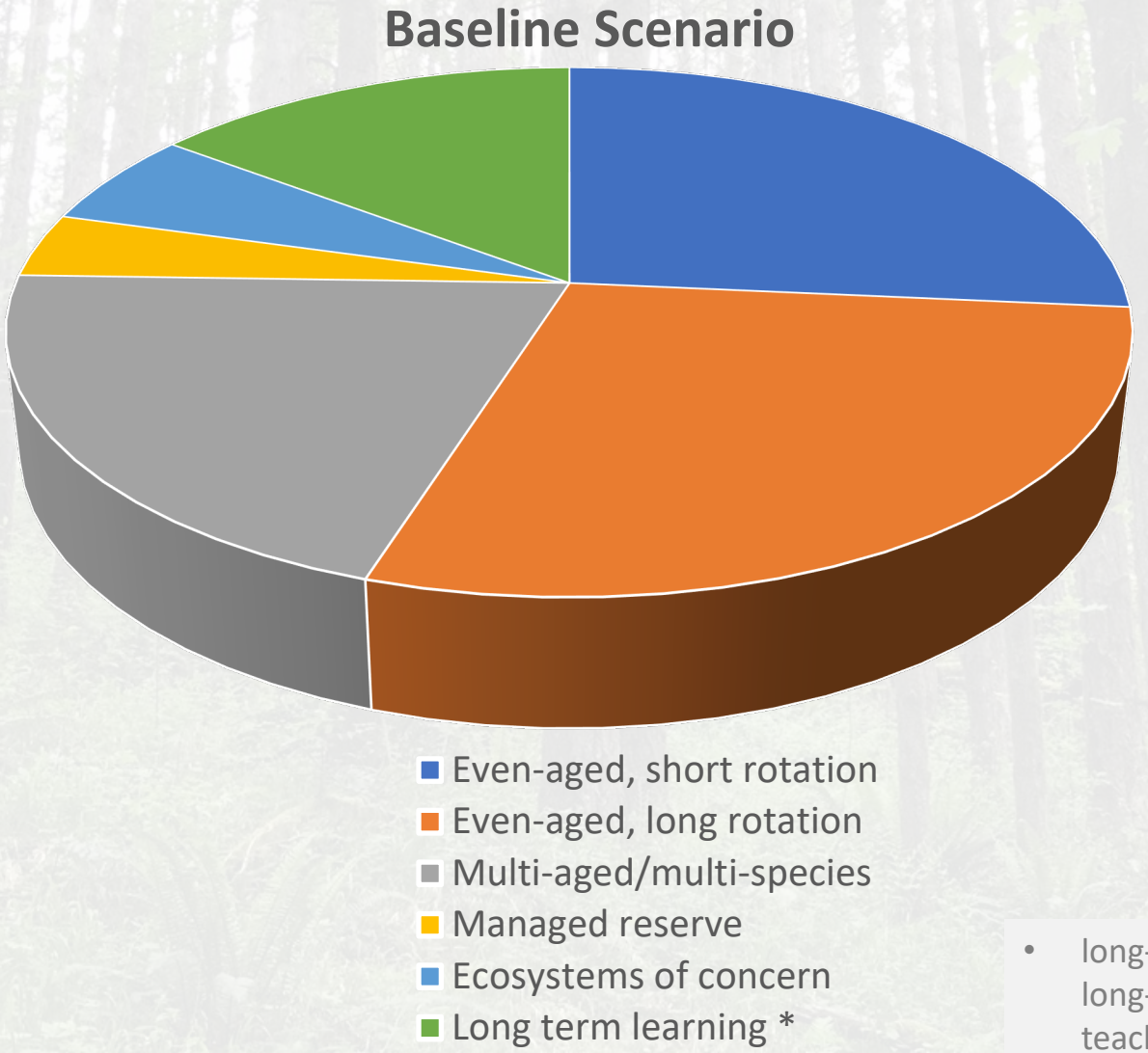
E. Ecosystems of concern (meadows, oak woodlands, riparian)

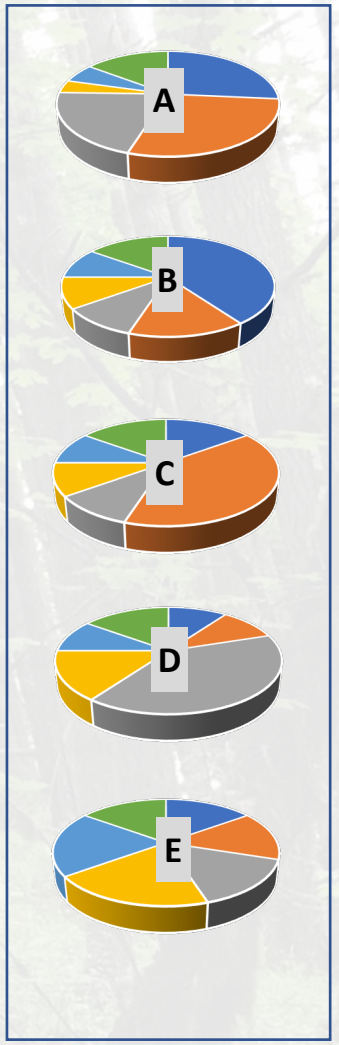


Overview of each new 'Management Strategy'

	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 *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 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: We'll be evaluating the merits of several 'scenarios'

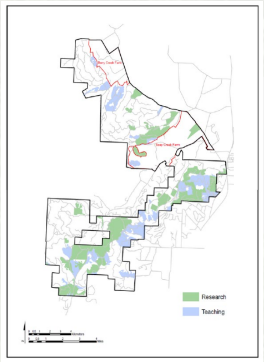




- long-term learning = acreage used for long-term research and recurring teaching and demonstrations

Recap: Modeling of Scenarios to Evaluate Tradeoffs

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%



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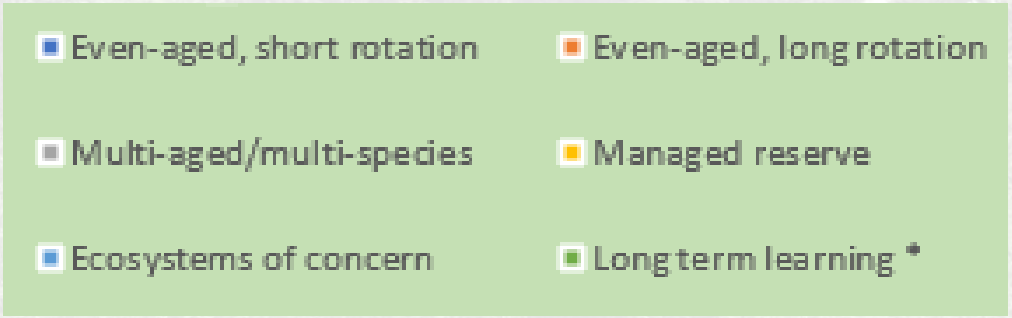
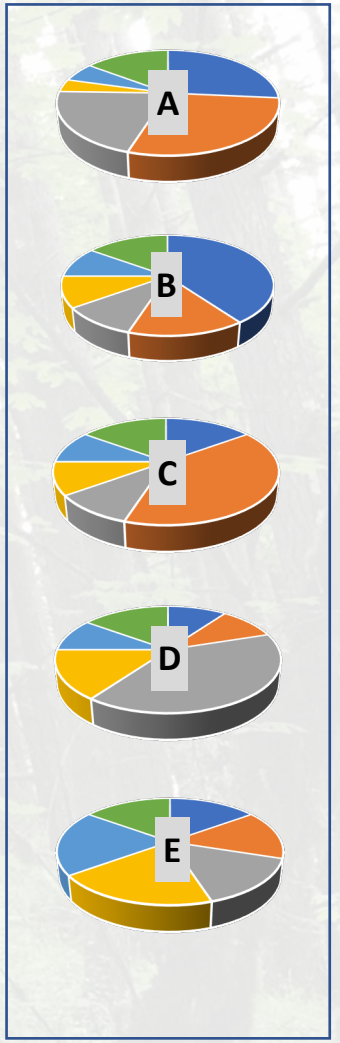
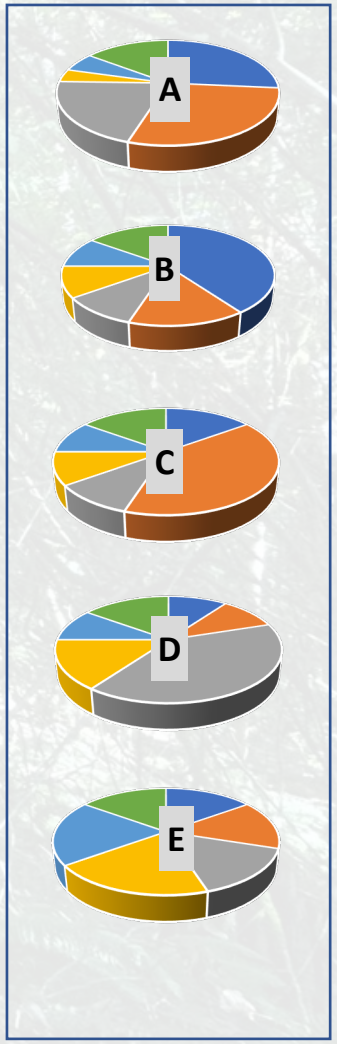




Evaluating the merits of several ‘scenarios’

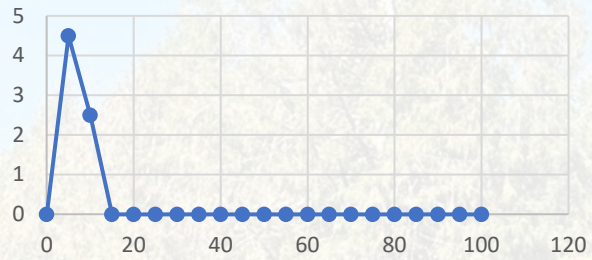
Further discussion of the values to use to assess tradeoffs among *management strategies?*

Forest Value
Biodiversity
Carbon storage
Culturally important species
Forest products
Recreation suitability / Scenic beauty
Resilience - density
Resilience - composition
Revenue
Wildfire risk

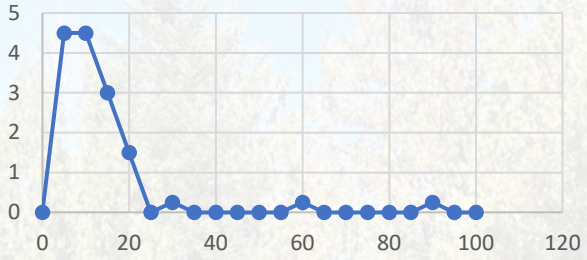


Modeling Biodiversity – example data shown below, derived through expert opinion
- could we use a similar approach for Culturally Important Species?

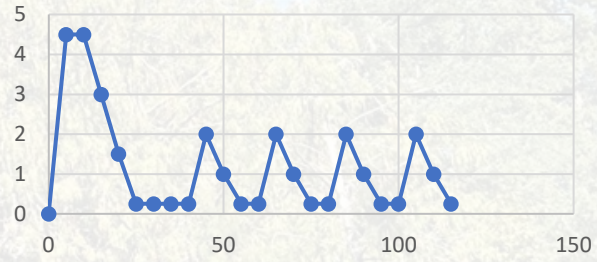
Even-aged short rotation



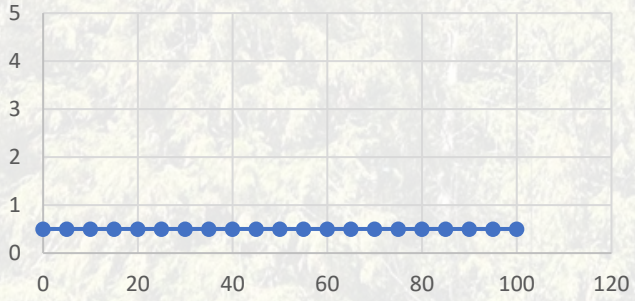
Even-aged long rotation



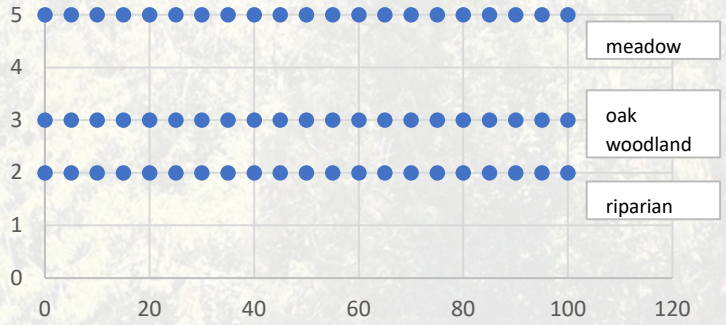
Multi-age multi-species



Managed reserve



Ecosystems of concern



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Further discussion of the values to use to assess tradeoffs among *management strategies?*

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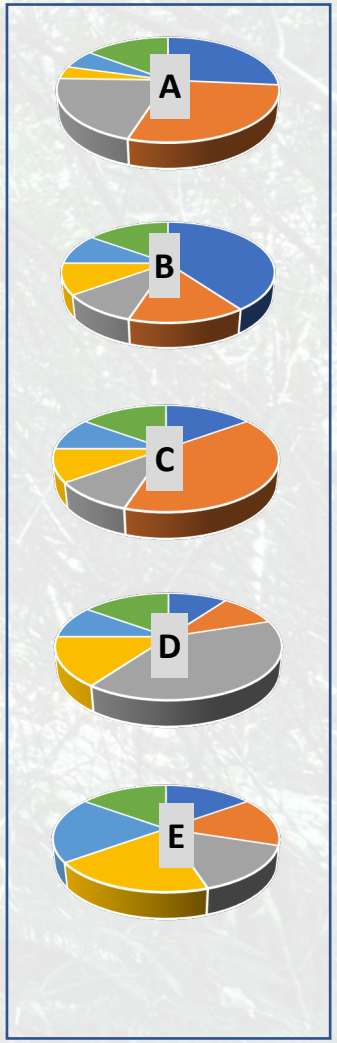
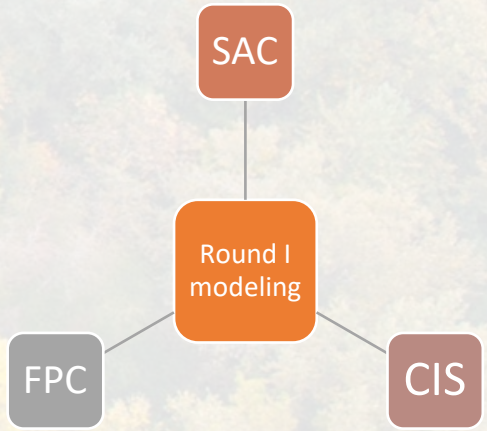


Options for assessing tradeoffs among scenarios

- We will have 9 “forest values” to compare across 5 scenarios
- Ultimately, FPC, SAC, and the community will weigh in on their degree of preference for each
- We need to decide on process to be used to assess



- <u>Some options</u>
  - Assess with true values, each on a different scale
  - Convert quantitative values for each metric to qualitative (high, medium, low)
  - Convert quantitative values for each metric to ranking (1, 2, 3, 4, 5)

Options for assessing tradeoffs among scenarios

- Raw numbers (mock-up numbers are inserted below as placeholders to show the variety of scales across forest values)

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	3.8	2.5	3.9	2.1	3.4
Carbon storage	820 MT C/ha	1640 MT C/ha	1010 MT C/ha	940 MT C/ha	1730 MT C/ha
Culturally important species	2.4	3.1	3.6	3.7	2.9
Forest products	5.1 MMBF	5.8 MMBF	4.7 MMBF	4.2 MMBF	3.7 MMBF
Recreation suitability/scenic beauty	3.3	3.1	3.9	3.5	3.7
Resilience - density	144 trees/ha	159 trees/ha	150 trees/ha	162 trees/ha	138 trees/ha
Resilience - composition	4.0	3.8	4.5	4.6	4.3
Revenue	$1.0 M	$1.2 M	$0.8 M	$0.6 M	$0.4 M
Wildfire risk	42	49	40	46	44

Options for assessing tradeoffs among scenarios

- Qualitative (high, medium, low) (mock-up ratings are inserted below as placeholders to demo this approach)

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	High	Low	High	Low	Medium
Carbon storage	Low	High	Medium	Low	High
Culturally important species	Low	Medium	High	High	Low
Forest products	High	High	Medium	Low	Low
Rec suitability/scenic beauty	Low	Low	High	Medium	High
Resilience - density	Low	High	Medium	High	Low
Resilience - composition	Low	Low	High	High	Medium
Revenue	High	High	Medium	Low	Low
Wildfire risk	Low	High	Low	High	Medium

High
Medium
Low

Options for assessing tradeoffs among scenarios

- Ranking (1 through 5) (mock-up rankings are inserted below as placeholders to demo this approach)

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	4	2	5	1	3
Carbon storage	1	4	3	2	5
Culturally important species	1	3	4	5	2
Forest products	4	5	3	2	1
Rec suitability/scenic beauty	2	1	5	3	4
Resilience - density	2	4	3	5	1
Resilience - composition	2	1	4	5	3
Revenue	4	5	3	2	1
Wildfire risk	2	5	1	4	3

Highest (5)
Moderately high (4)
Moderate (3)
Moderately Low (2)
Lowest (1)

Draft Table of Contents of the New Plan – version discussed during 17 Oct FPC meeting

Draft New Plan TOC - Oct 2023

- **Table of Contents**
- **Executive Summary**

Chapter 1 - Introductory Context

1.1 Intent of the 2024 McDonald-Dunn Forest Plan
1.2 Defining the Vision, Mission, and Goals for Research and Demonstration Forests (2021)
1.3 Developing the 2024 McDonald-Dunn Forest Plan (2022-2023)
1.4 Overview of Recent History of the McDonald-Dunn Forest (past 30 years)
1.4.1 The 1993 Plan
1.4.2 The 2005 plan
1.4.3 Suspension and Resumption of the 2005 Plan

Chapter 2 - Site Description

2.1 Location of the Forest
2.2 Biophysical Conditions
2.3 History of Ownership and Land Use
2.4 Cultural Resources
2.5 Zoning and Regulations
2.6 Harvest History and Recreation Use History *(Does Jenna have historical data on rec use? From what period?)*
2.7 Current Forest Conditions

Chapter 3 - New Management Paradigms

3.1 Tribal Engagement

3.1.1+ Content to be decided upon in consultation with tribal members
3.1.x Processes to be Used …

3.2 Fostering Learning Opportunities

3.2.1 Long-term Research
3.2.2 Dedicated Teaching Areas *(Fitz & Brent should decide if this section and map are warranted)*
3.2.3 Processes to be Used to Initiate Use of the Forest for Research, Teaching, or Outreach

3.3 Forest Management Strategies

3.3.1 The Five Management Strategies
3.3.2 Analyses Used to Allocate Land to each Management Strategy
3.3.3 Timber Harvest Schedule
3.3.4 Anticipated Future Forest Conditions
3.3.5 Alternative Funding Mechanisms *(Is this the best location for this?)(How will we write this?)*

3.4 Maintaining Biodiversity

3.4.1 At-risk Plants & Wildlife
3.4.2 Management of Wildlife Habitat
3.4.3 Management of Aquatic resources *(Should aquatic be lumped with riparian EOC?) (Guidance?)*
3.4.4 Management of Vegetation Communities of Concern *(Should this be oak woodlands & meadow?) (Guidance?)*
3.4.5 Management of Legacy Trees, Snags, & Down Wood

3.5 Managing Threats to Forest Health

3.5.1 Climate Change
3.5.2 Invasive Species
3.5.3 Wildfire
3.5.4 Insects & Disease *(Do we need to recruit an author for this?)*
3.5.5 Development (WUI)

3.6 Human Dimensions

3.6.1 Recreation
3.6.2 Cultural Heritage *(Is this redundant with 3.1.1?)*
3.6.3. Vandalism

3.7 Enhancing Community Engagement

3.7.1 Community Science *(Do we have a starting point for this?)*
3.7.2 Interpretation *(Do we have a starting point for this?)*
3.7.3 Communication Strategies *(Do we have a starting point for this?)*

Chapter 4 - Plan Implementation

4.1 Roles - Research Forest Staff, Forest Executive Committee, Dean
4.2 Annual Reporting
4.3 Adaptive Management/Continuous Improvement
4.4 Performance & Sustainability Indicators

- **Literature Cited**
- **Glossary**
- **Appendices**

Draft Table of Contents of the New Plan – version revised after discussion on 17 Oct; changes in red

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2.4 Cultural Resources
2.5 Zoning and Regulations
2.6 ~~Harvest~~ Disturbance History
2.7 Recreation Use History
2.8 Current Forest Conditions

Chapter 3 - New Management Paradigms

3.1 Tribal Engagement
3.1.1+ Content to be decided upon in consultation with tribal members
3.1.x Processes to be Used …
3.2 Fostering Learning Opportunities
3.2.1 Long-term Research Areas
3.2.2 ~~Dedicated Teaching Areas~~ High Use Teaching and Outreach Areas
3.2.3 Processes to be Used to Initiate Use of the Forest for Research, Teaching, or Outreach
3.3 Forest Management Strategies
3.3.1 The Five Management Strategies
3.3.2 Analyses Used to Allocate Land to each Management Strategy
3.3.3 Timber Harvest Schedule
3.3.4 Anticipated Future Forest Conditions
~~3.3.5 Alternative Funding Mechanisms~~ ~~*(This does not seem the best location for this – where should it go?)*~~
3.4 Biodiversity
3.4.1 At-risk Plants & Wildlife
3.4.2 Management of Meadows
3.4.3 Management of Oak Woodlands
3.4.4 Management of Riparian & Aquatic Areas
3.4.5 Management of Vegetation Communities of Concern *(Do we need this?)*
3.4.6 Management of Legacy Trees, Snags, & Down Wood
3.4.7 Management of Hardwoods
3.5 Threats to Forest Health
3.5.1 Climate Change
3.5.2 Invasive Species
3.5.3 Wildfire
3.5.4 Insects & Disease
~~3.5.5 Development (WUI)~~
3.6 Human Dimensions
3.6.1 Recreation
3.6.2 Cultural Heritage *(Remove this section if it is redundant with 2.4 and/or 3.1.1)*
3.6.3 Wildland-Urban Interface
3.6.4 Vandalism
3.7 Enhancing Community Engagement
3.7.1 Volunteering
3.7.2 Interpretation
3.7.3 Communication Strategies
3.7.4 Community Science
3.7 Enhancing Economic Sustainability *(Should we create an additional section for this material?)*
3.7.1 Sustained Income Generation
3.7.2 Additional Potential Sources of Income

Chapter 4 - Plan Implementation

4.1 Roles - Research Forest Staff, Forest Executive Committee, Dean
4.2 Annual Reporting
4.3 Adaptive Management/Continuous Improvement
4.4 Performance & Sustainability Indicators

- **Literature Cited**
- **Glossary**
- **Appendices**

Indicators of Performance and Sustainability

- 2005 Plan
  - defined 7 goals
  - set 1-4 objectives for each goal
  - proposed 1-8 indicators for each objective

- New plan
  - FRAC defined 10 goals for all Research Forests
  - we should begin to consider relevant objectives and indicators for each goal
  - the idea is to define monitoring, to enable adaptive management