Western Oregon State Forests HCP

September 16, 2020

ICF

KEARNS & WEST

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- Put yourself on mute when not speaking (phone & webinar platform)
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- Say your name and affiliation before speaking
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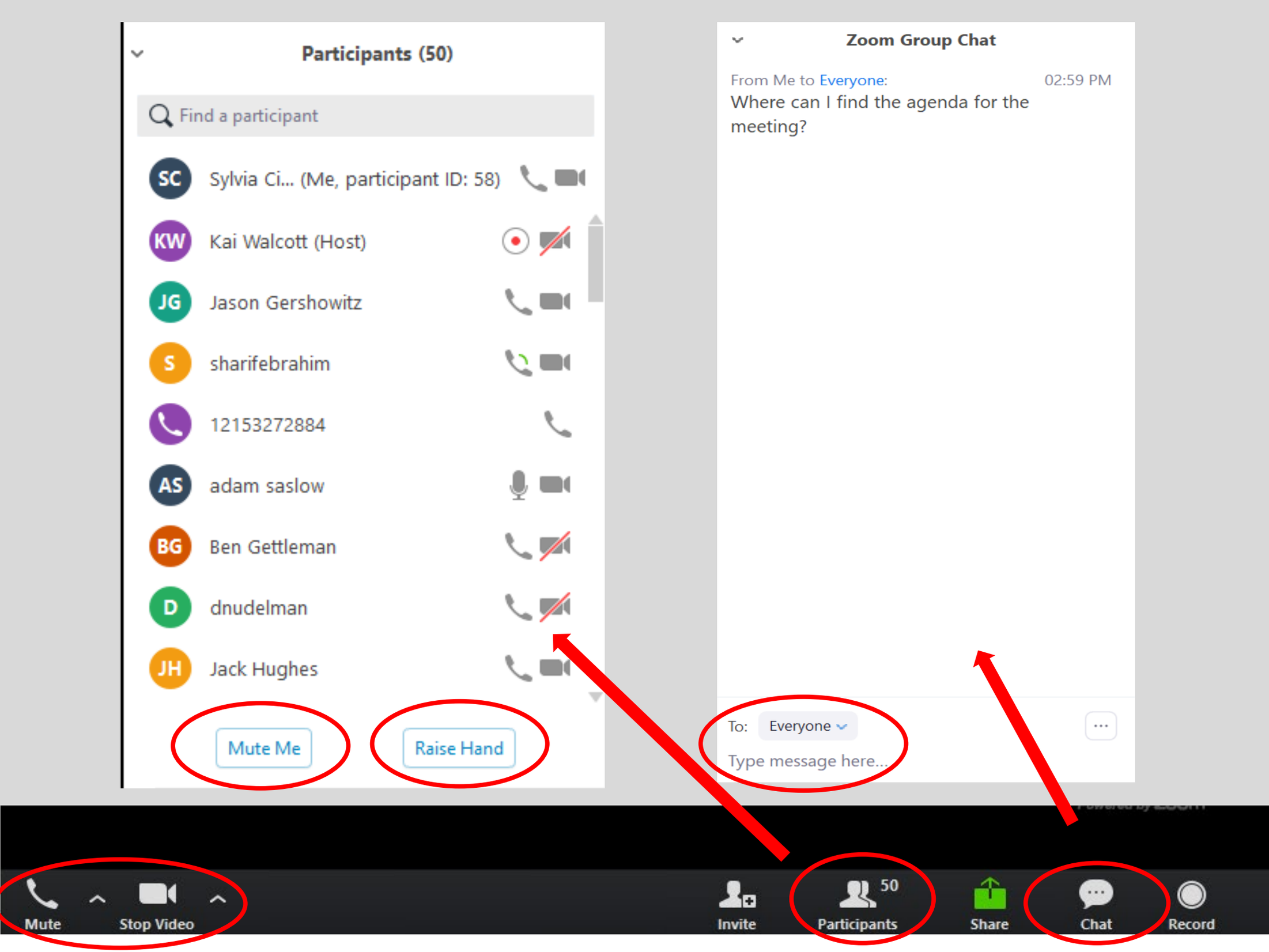
- The meeting will include time for Q&A and input. You can provide comments verbally or by email to Jason.R.COX@oregon.gov


Participants (50)
Find a participant
SC Sylvia Ci... (Me, participant ID: 58)
KW Kai Walcott (Host)
JG Jason Gershowitz
S sharifebrahim
12153272884
AS adam saslow
BG Ben Gettleman
D dnudelman
JH Jack Hughes
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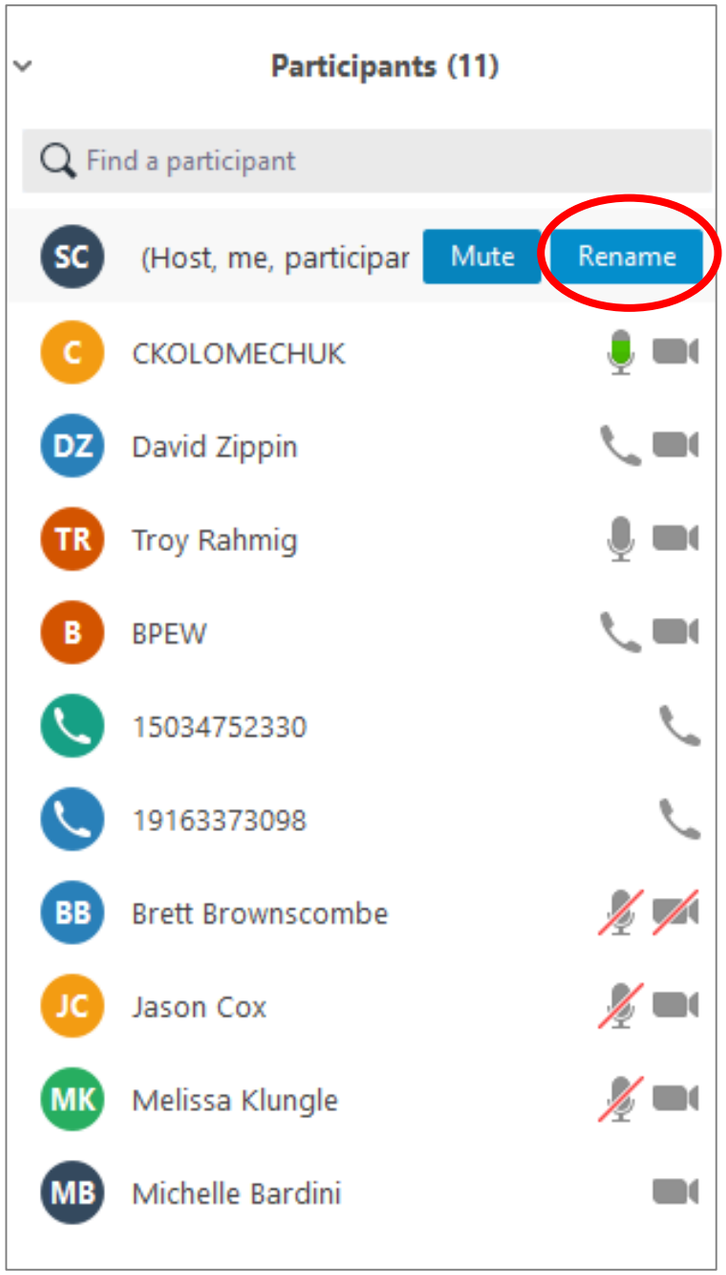

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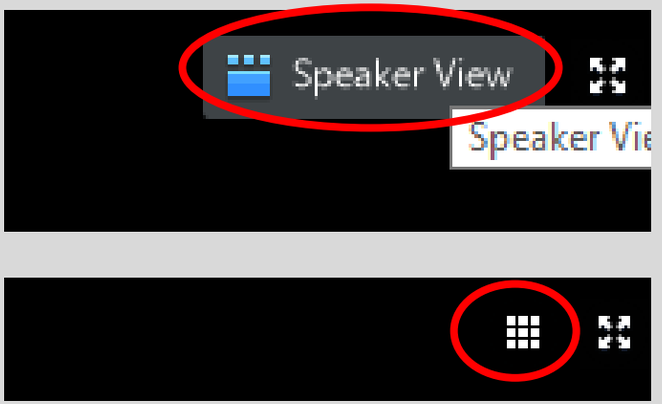
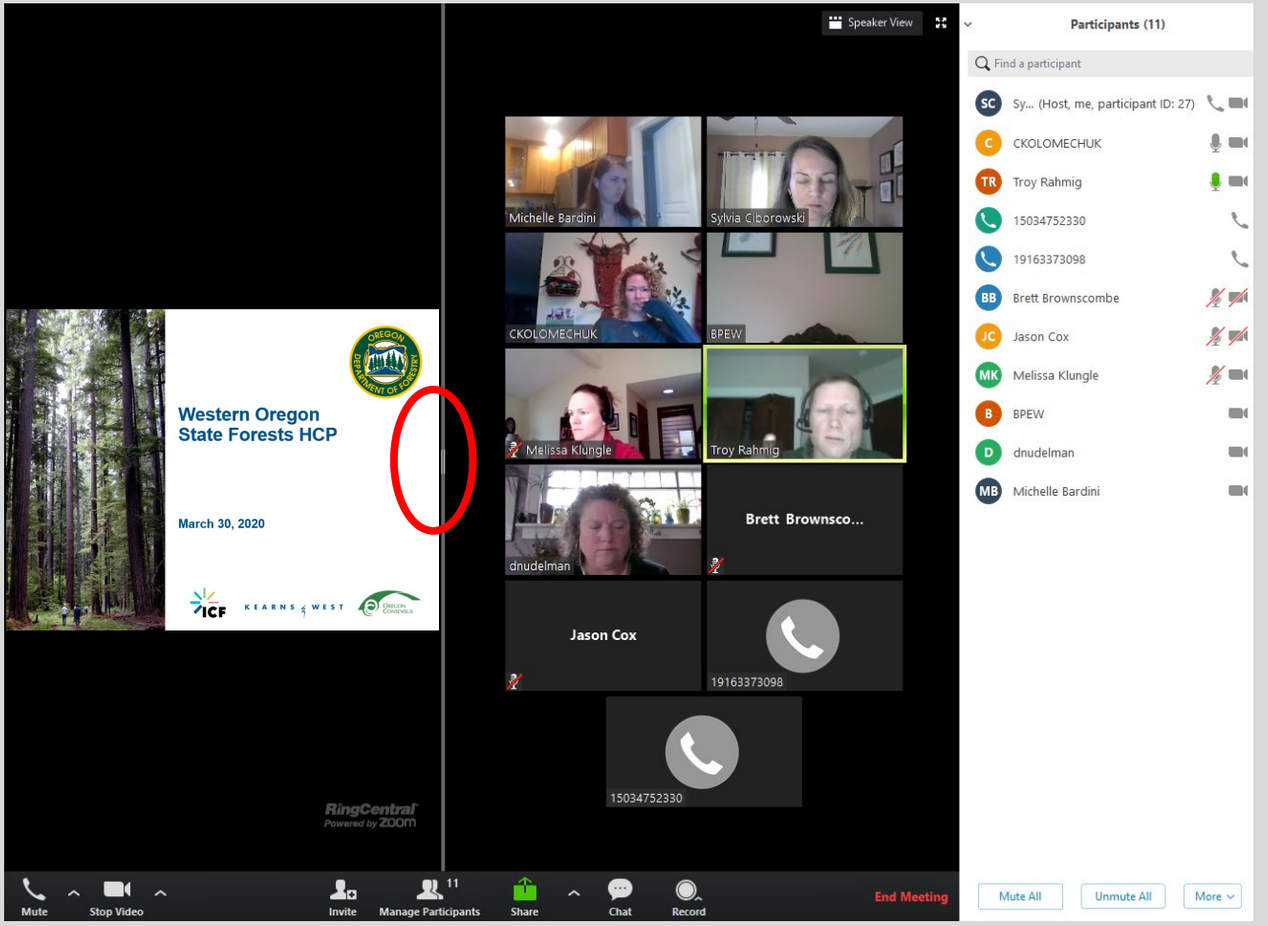
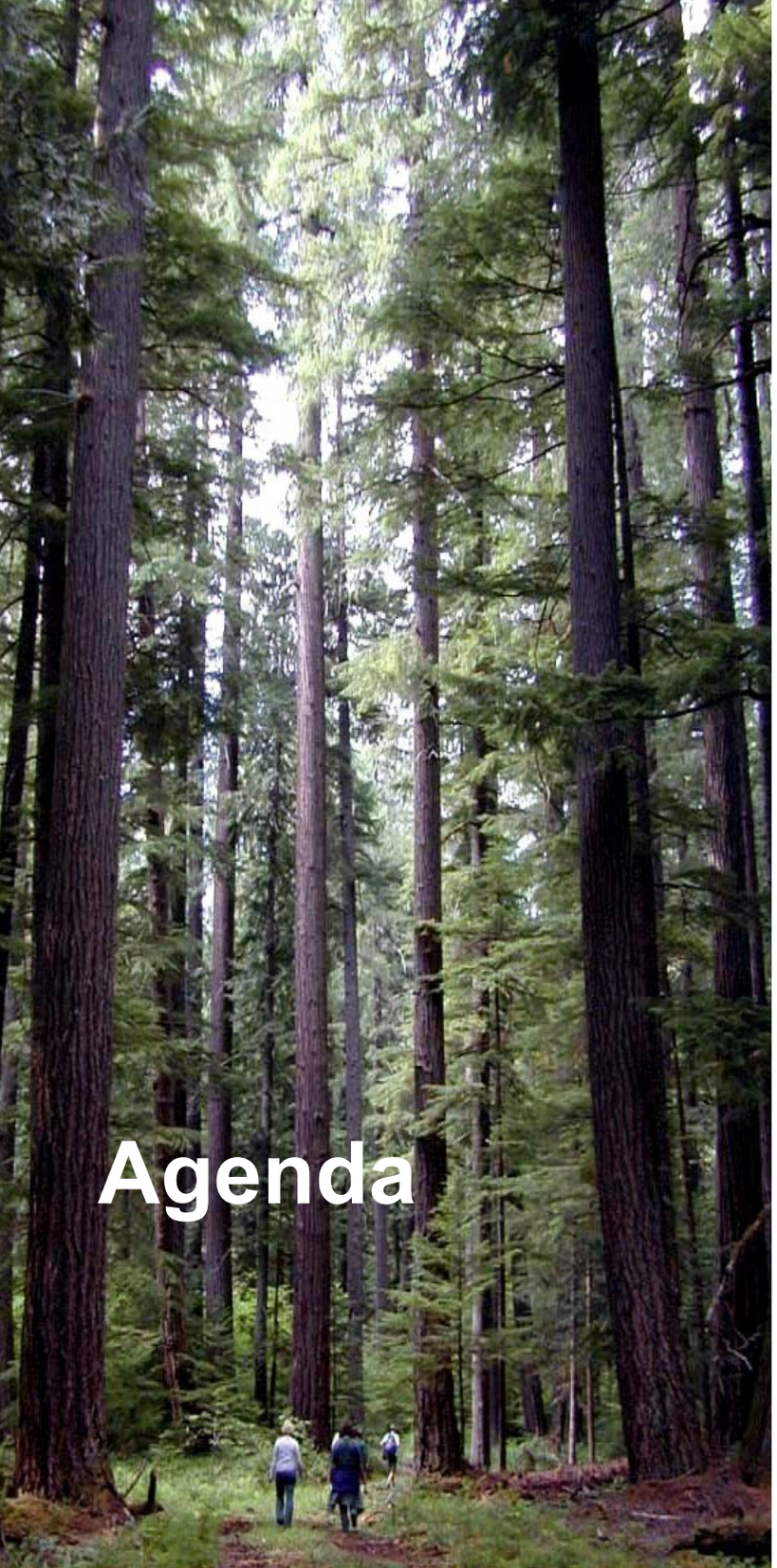


2) Adjust video and shared document size



Introductions and Welcome



Agenda

1. Introductions and Welcome
2. Updates on HCP
3. Conservation Strategy Updates
    1. Updates to HCAs, including maps
    2. Refinements to RCAs
4. Overview of Comparative Analysis
5. Summary and Next Steps
6. Additional Discussion Time

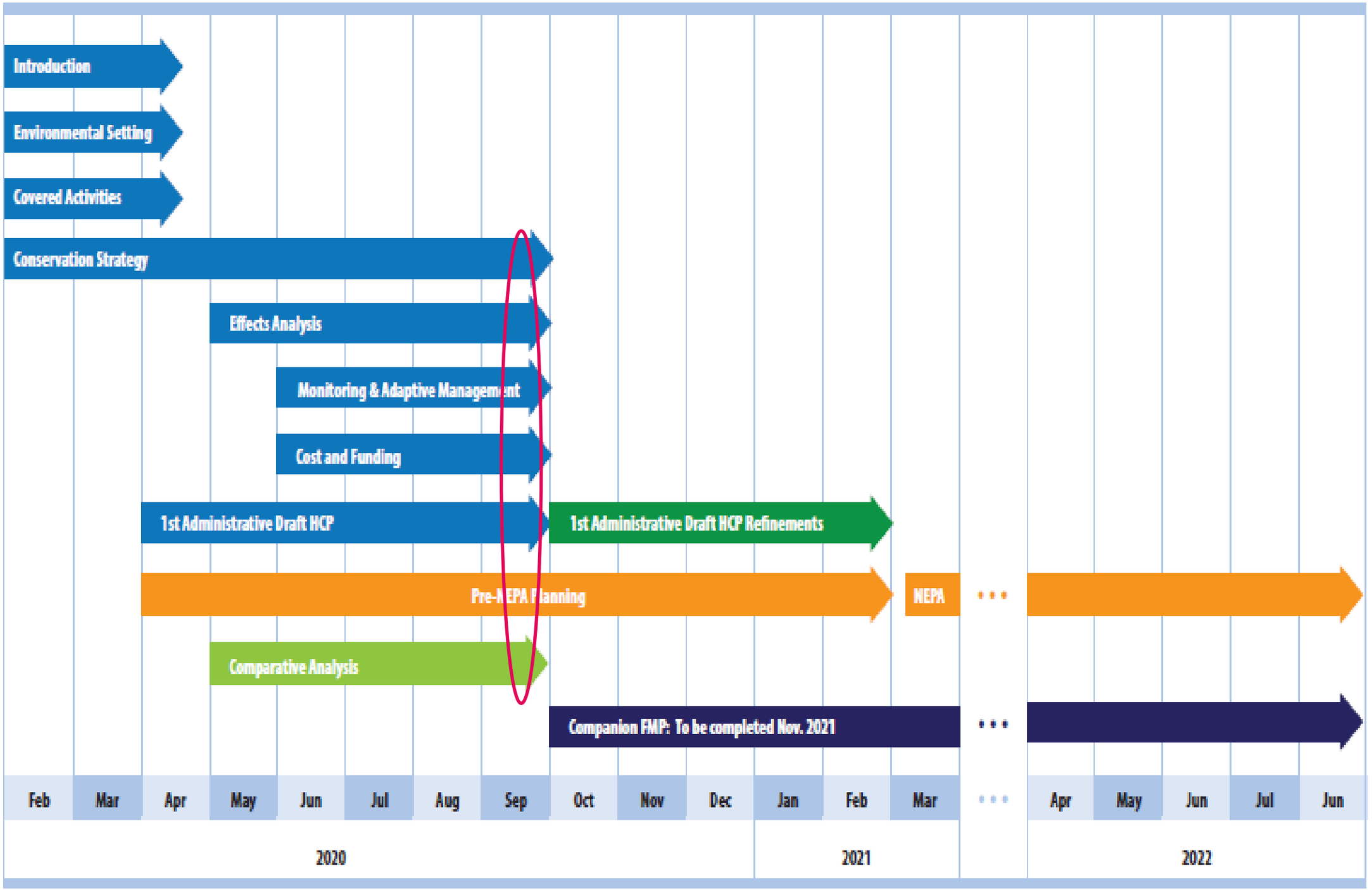
Discussion Guidelines

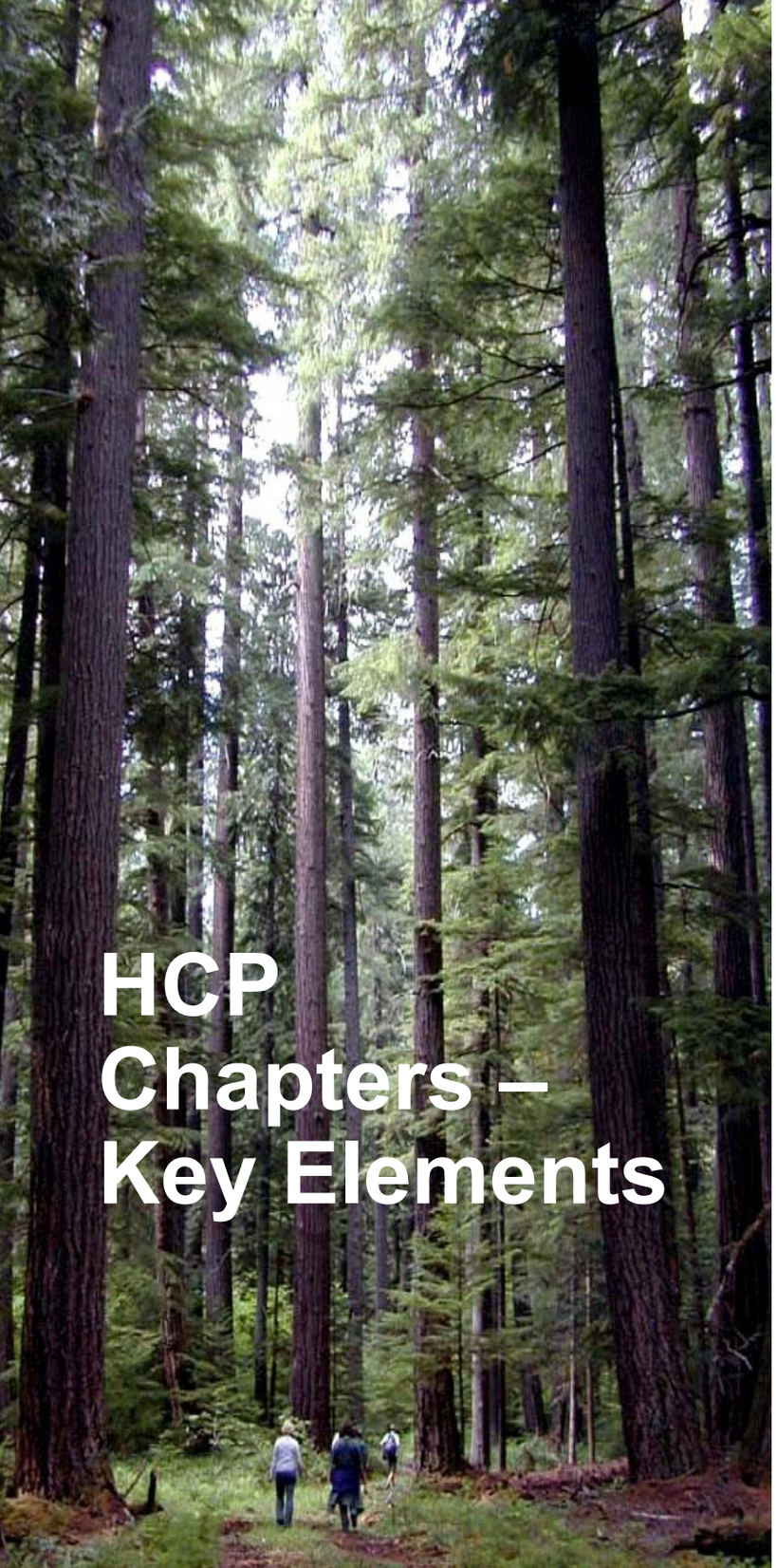
- Honor the agenda
- Provide a balance of speaking time
- Listen to understand and ask questions to clarify
- Respect each other's viewpoints, values and interests
- Focus comments on topics at hand – be hard on the issues and soft on the people

HCP Update

- Schedule
- HCP Chapter Elements and Status

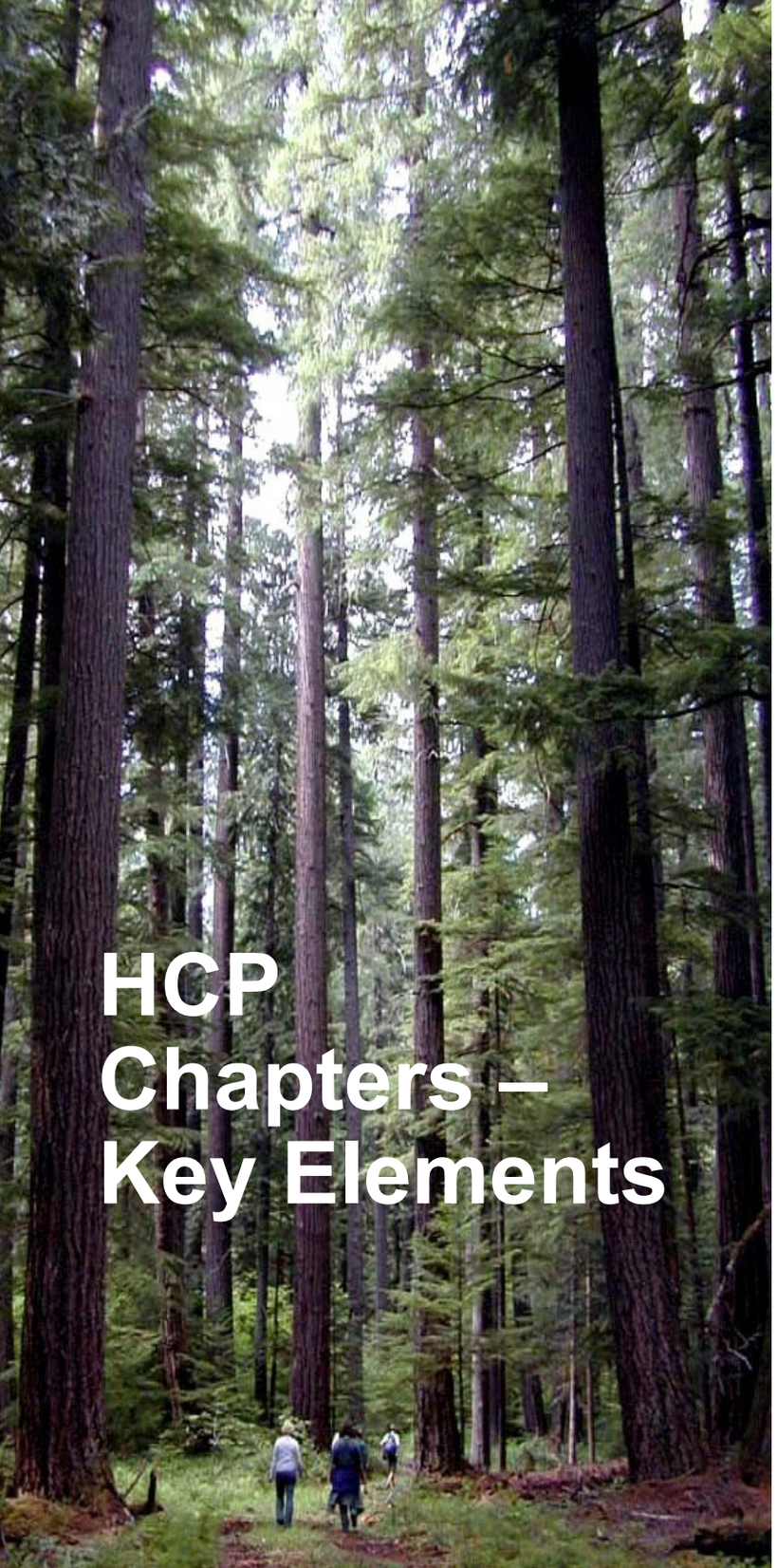
Draft HCP Development Timeline





HCP Chapters – Key Elements

- Chapter 1 – Introduction
- Chapter 2 – Environmental Setting
- Chapter 3 – Covered Activities
- Chapter 4 – Conservation Strategy
- Chapter 5 – Effects Analysis
- Chapter 6 – Monitoring and Adaptive Management
- Chapter 7 – Assurances
- Chapter 8 – Implementation
- Chapter 9 – Cost and Funding
- Chapter 10 – Alternatives to Take

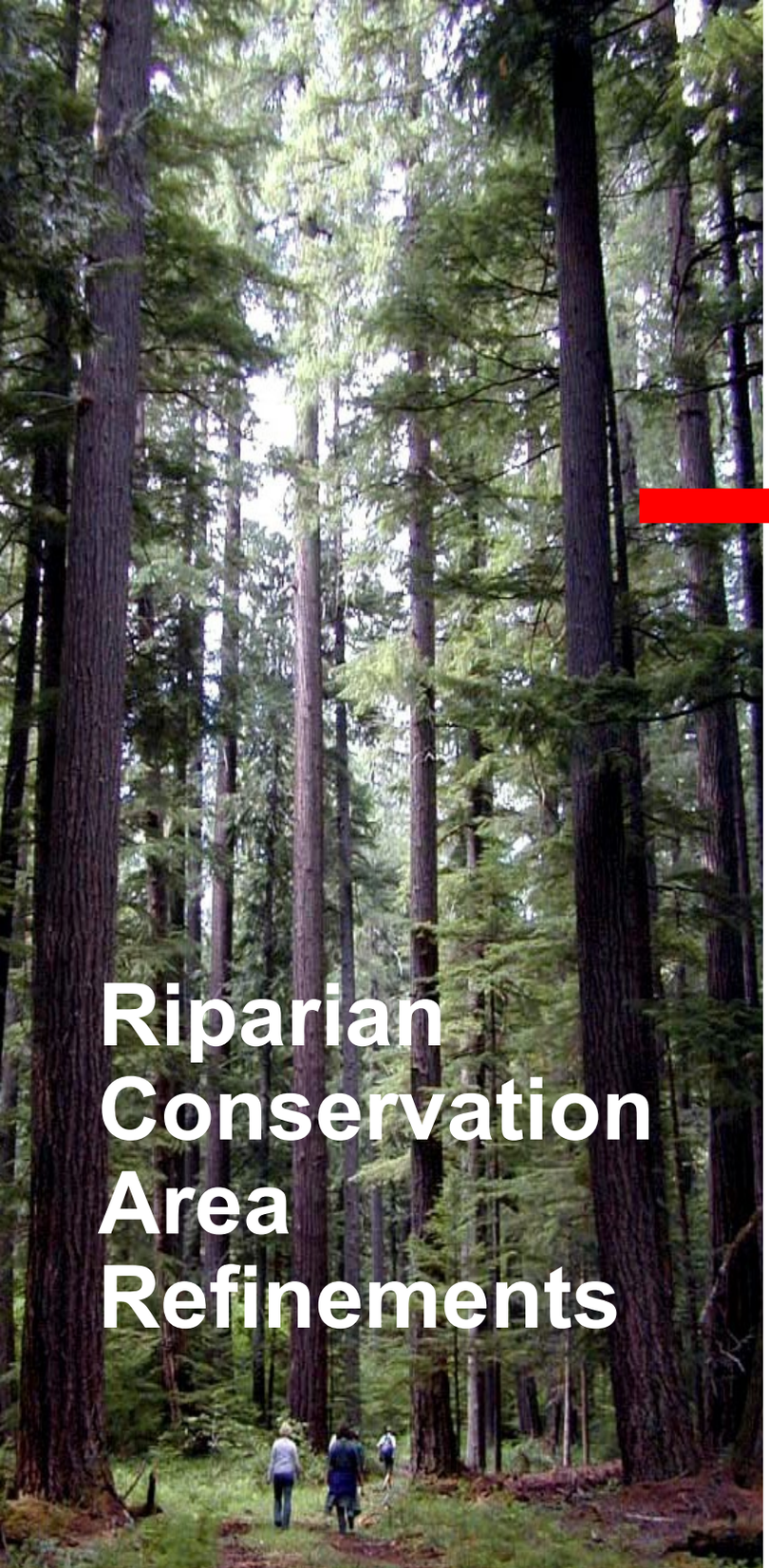


HCP Chapters – Key Elements

- Chapters will be provided to the Board of Forestry and posted online – September 21
- Chapters provided to the Board have been reviewed by the Scoping Team
- Some refinements will occur following the Board meeting
- Information that is still under discussion is identified in the draft
- Refinements will not significantly change conservation, economic, or social outcomes, as described in the Comparative Analysis

Conservation Strategy Refinements

- Riparian Conservation Area Updates
- Habitat Conservation Area Updates and Maps
- Management in HCAs



Riparian Conservation Area Refinements

Table 4-3. Minimum Buffer Widths (Horizontal Distance) for All Type F and Large and Medium Type N

Stream Type	Minimum Management Area Width (feet)	
	Type F	Type N
Large	120	120
Medium	120	120
Small	120	See Table 4-4
Seasonal[a]	120	See Table 4-4

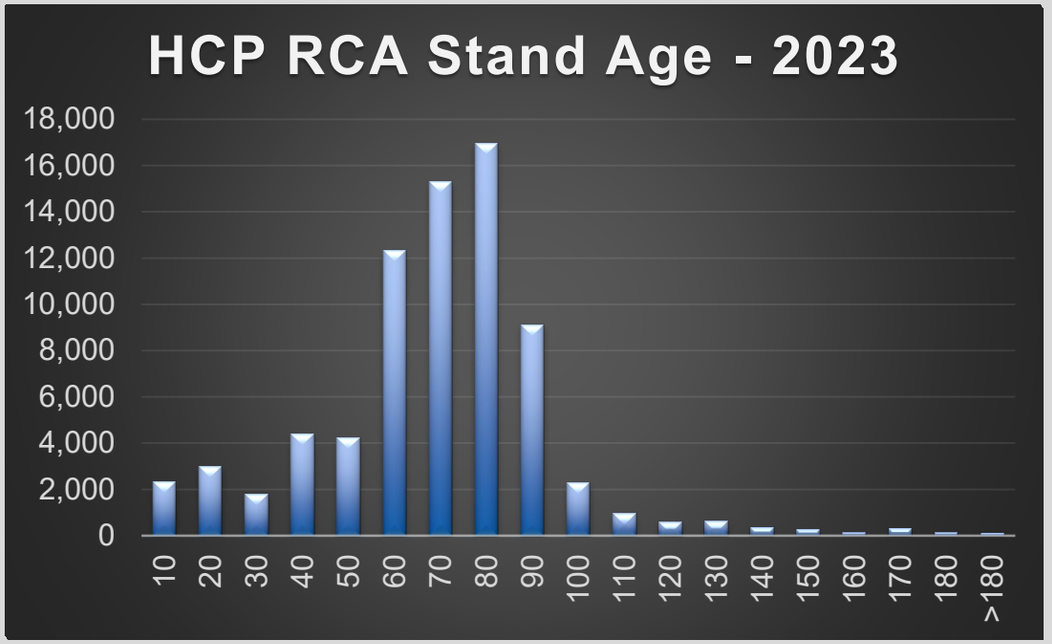
[a] Seasonal: A stream that does not have surface flow after July 15.

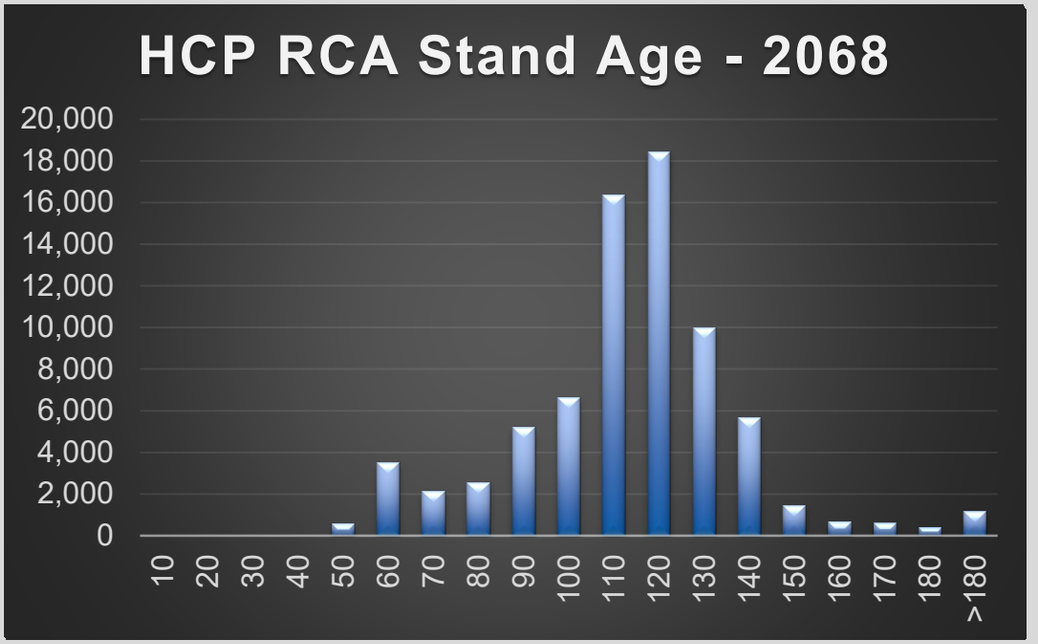
Table 4-4. Minimum Riparian Conservation Area Widths (Horizontal Distance) for Small Perennial and Seasonal Type N Streams

Stream Type	Minimum Management Area Width (feet)	
	Within 500-foot Temperature Zone	Upstream of 500-foot Temperature Zone
Perennial small Type N	120	35
Potential debris flow track (Seasonal Type N)[a]	50	35
High energy (Seasonal Type N)[b]	50	35
Seasonal other (Type N)[c]	0[d]	0[d]

Notes:
[a] Potential debris flow tracks: Reaches on seasonal Type N streams that have a high potential of delivering wood to a Type F stream.
[b] High Energy: Reaches on seasonal Type N streams that have a high potential of delivering wood and sediment to a Type F stream during a high-flow event.
[c] Seasonal: A stream that does not have surface flow after July 15.
[d] A 35-foot equipment restriction zone will apply to these streams.

Change in RCA Stand Age During Permit Term

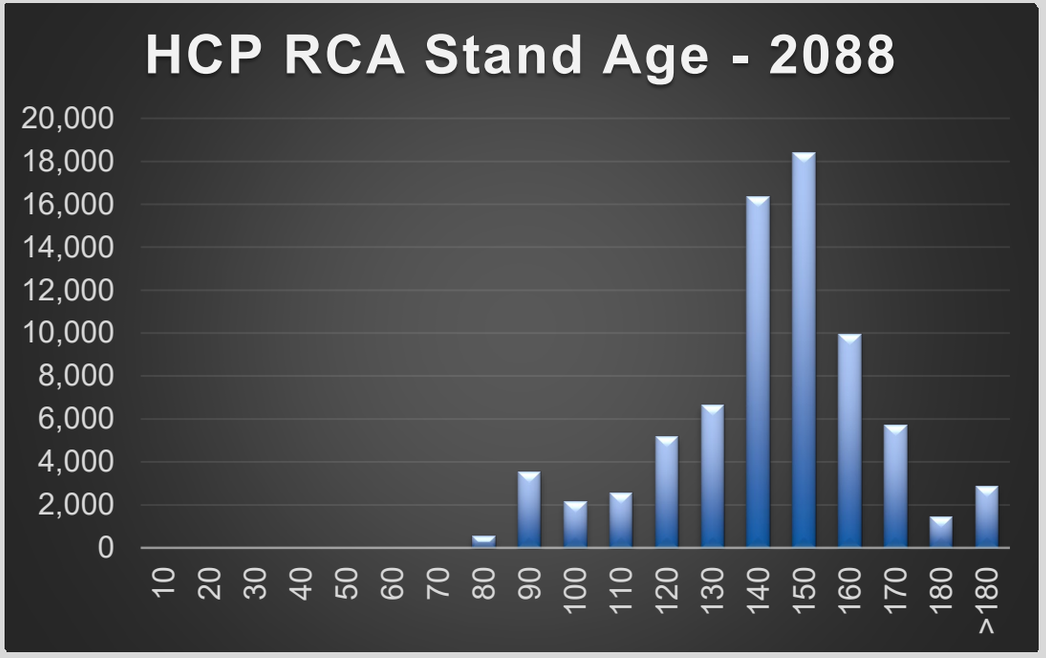


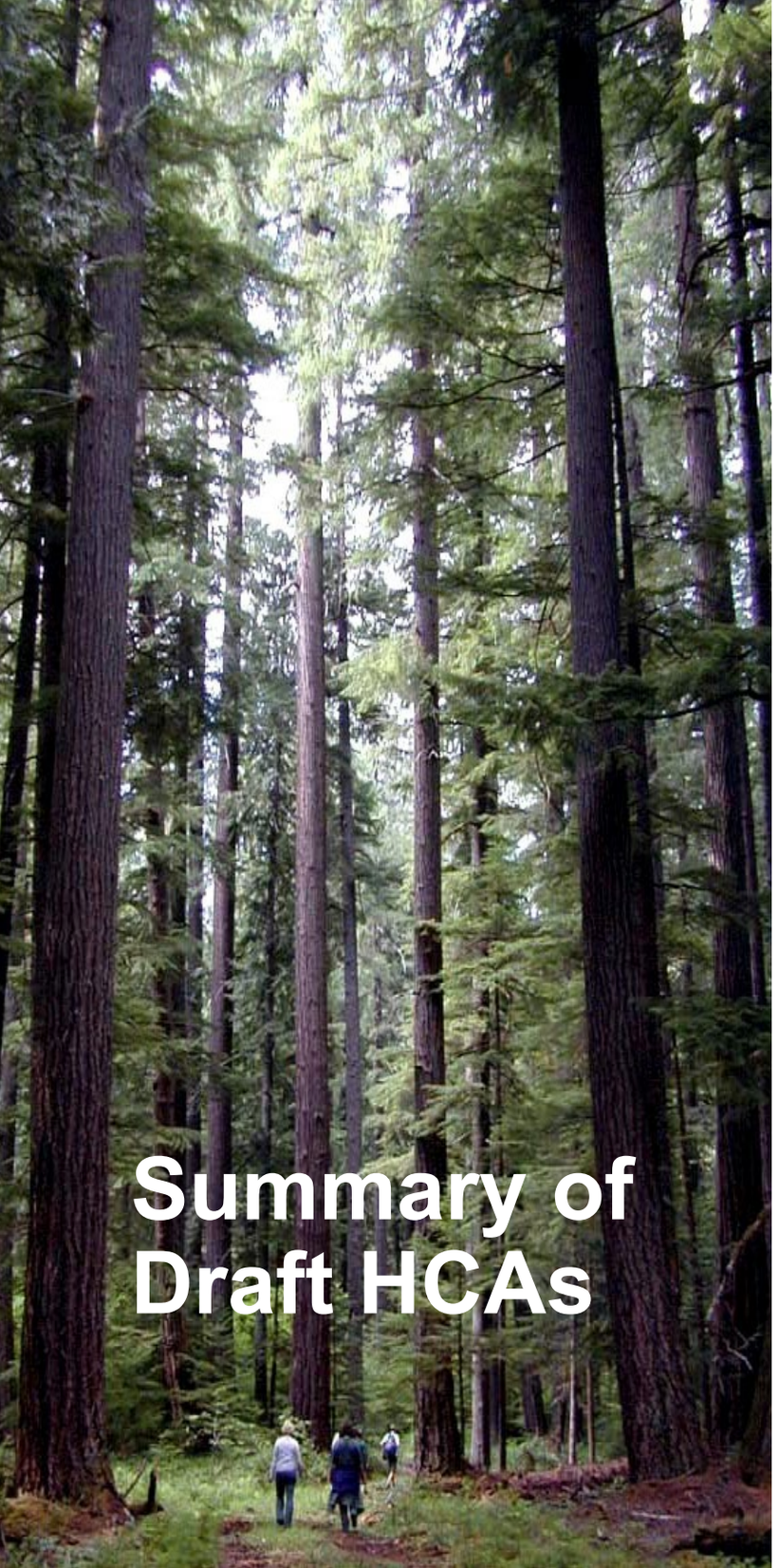


77,000 acres total

- 37,000 inside HCAs

- 41,000 outside HCAs



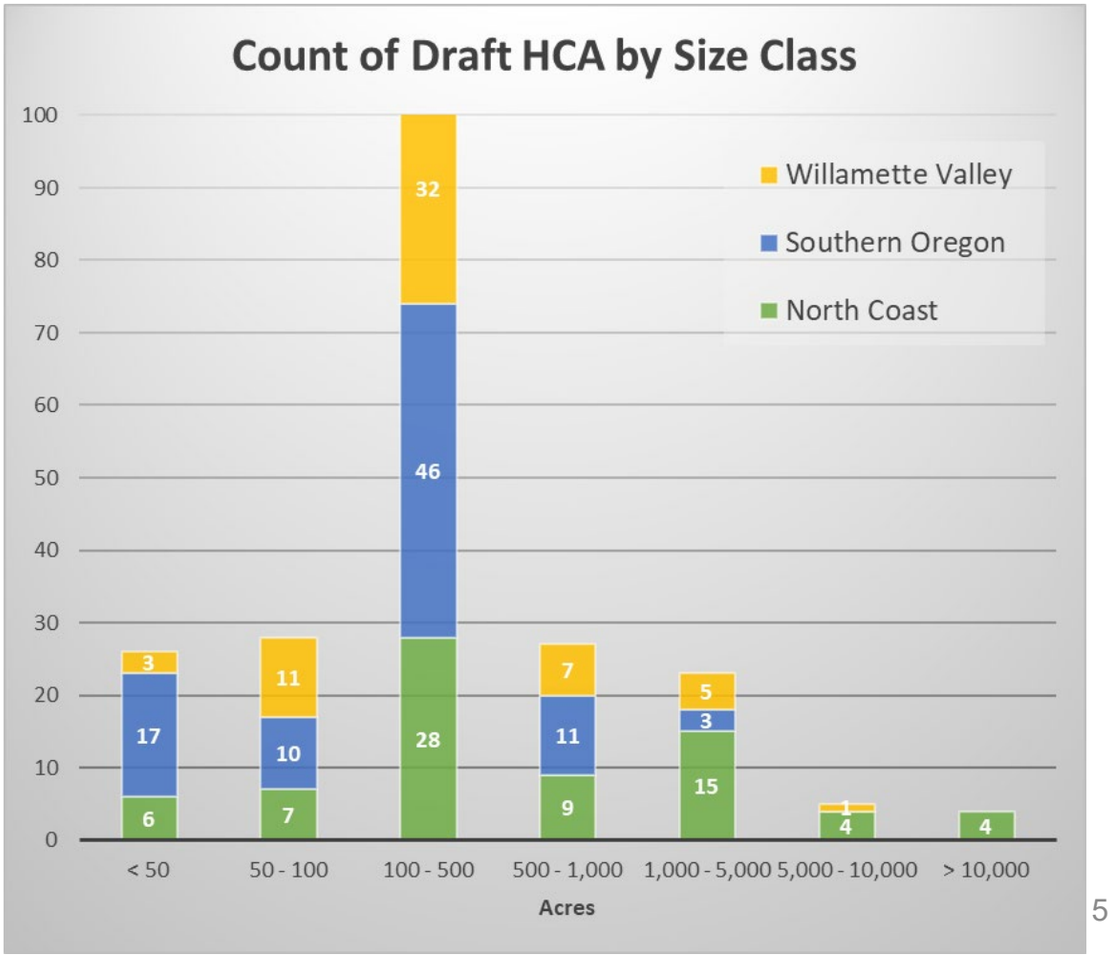


Summary of Draft HCAs

Final Draft HCA Size and Distribution

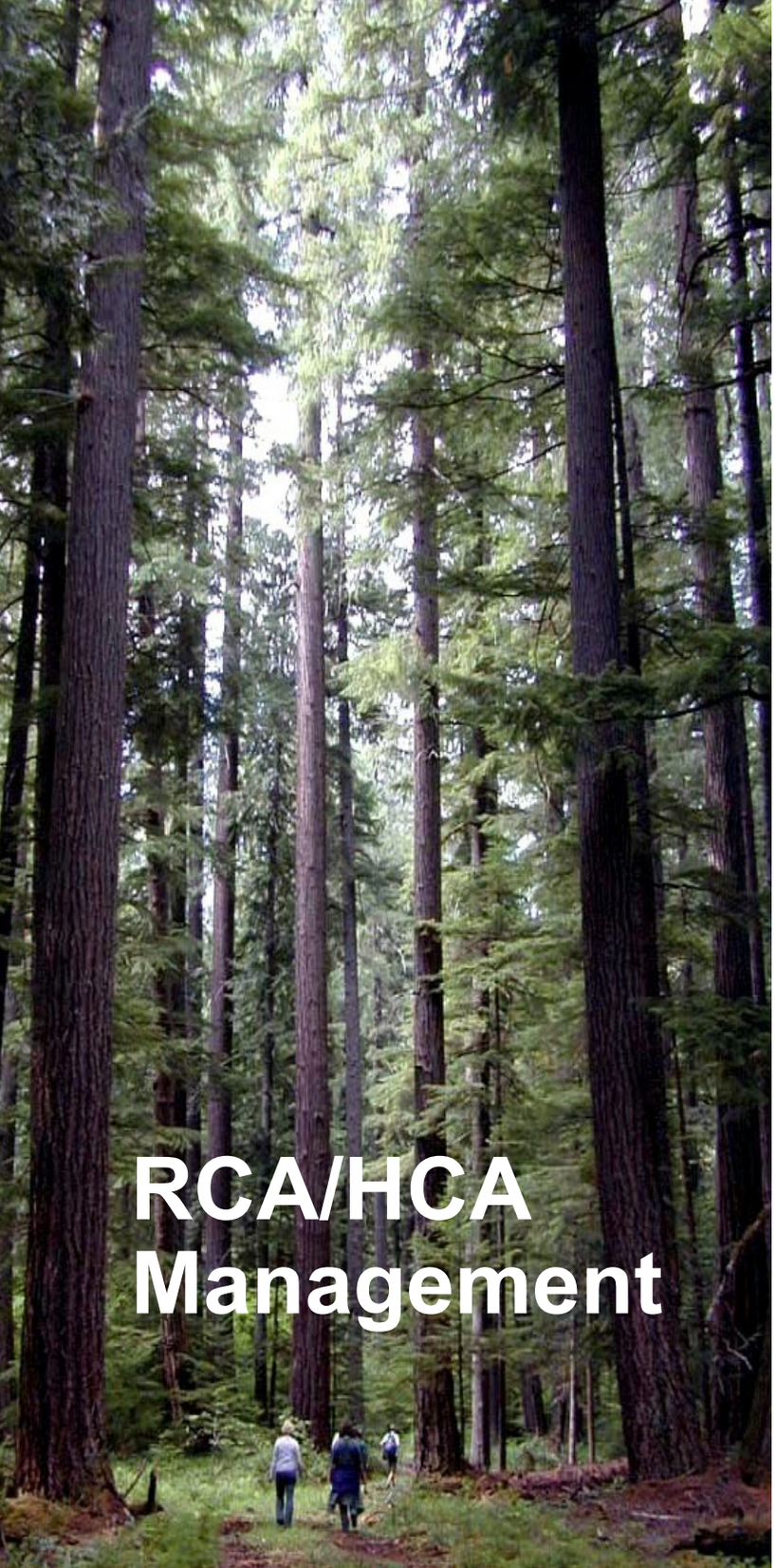
Permit Area	275,000 (43%)
North Coast	217,000 (43%)
Willamette Valley	33,000 (40%)
Southern Oregon	25,000 (47%)

Sizes of Draft HCAs vary across Permit Area



Total Combined HCA and RCA (to nearest 1,000 acres)

Location	HCAs	RCAs (inside/outside HCAs)	Total (% of Permit Area)*
Permit Area	**239,000**	**37,000 / 41,000**	**317,000 (50%)**
North Coast	186,000	31,000 / 35,000	252,000 (39%)
Willamette Valley	30,000	4,000 / 4,000	38,000 (6%)
Southern Oregon	23,000	2,000 / 2,000	27,000 (4%)



Management Activities

- No habitat management or harvest in RCAs
- Management focus in HCAs
  - Aligned with Biological Goals and Objectives
  - Management increases the quantity and quality of habitat over the permit term
- Silvicultural Treatments
  - Density management to promote growth in young stands – large trees, canopy diversity
  - Selective harvests employing variable retention to promote horizontal diversity and patch dynamics
  - Regeneration of stands with low potential to develop habitat for covered species
    - Swiss Needle Cast infected stands
    - Hardwood stands that lack conifer

Q&A and Discussion on Conservation Strategies

Please click “Raise Your Hand” in the webinar or press *9 on your phone to ask a question or make a comment.

You may also email comments to Jason.R.COX@oregon.gov

Comparative Analysis

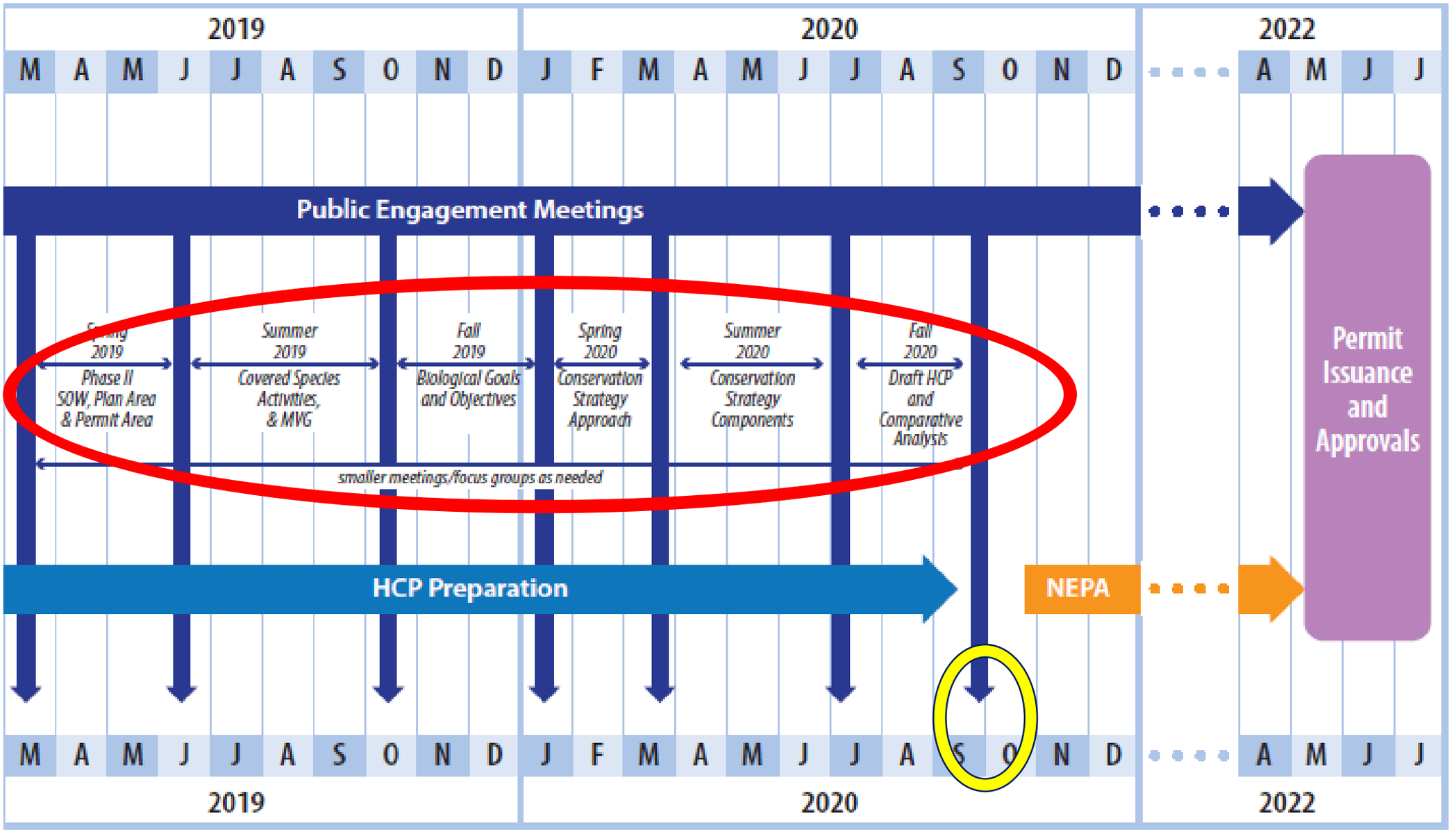
- Current FMP (cFMP)
- Draft FMP (dFMP)
- Habitat Conservation Plan (HCP)

Q&A and Discussion on Comparative Analysis

Please click “Raise Your Hand” in the webinar or press *9 on your phone to ask a question or make a comment.

Upcoming Stakeholder Engagement

Western Oregon State Forests HCP Stakeholder Engagement



Future Schedule

- **Counties:**
  - Continued effort to engage in FTLAC meetings
  - Individual representative conversations
- **Stakeholders:**
  - State Forest Advisory Committee (Sept. 17)
  - Joint Focus Group Meetings (Sept. 24)
  - Individual representative conversations

Board of Forestry meeting
October 6th

October 6 BOF Meeting

- Virtual meeting
- Opportunity for invited testimony and public testimony
- Visit Board website to learn how to provide public testimony and submit written comments

https://go.usa.gov/xGXEJ

- Written testimony must be submitted by 11:59 p.m. on Friday, Oct 2
- Oral testimony sign-up opens at 8:00 a.m. on Thursday, Oct 1. Limited slots available
- Sign up for Western Oregon HCP mailing list to get the latest updates

Closing Remarks

Discussion

This is an opportunity for further discussion on any topics presented at today's meeting.

Please click "Raise Your Hand" in the webinar or press *9 on your phone to ask a question or make a comment.

You may also email comments to Jason.R.COX@oregon.gov

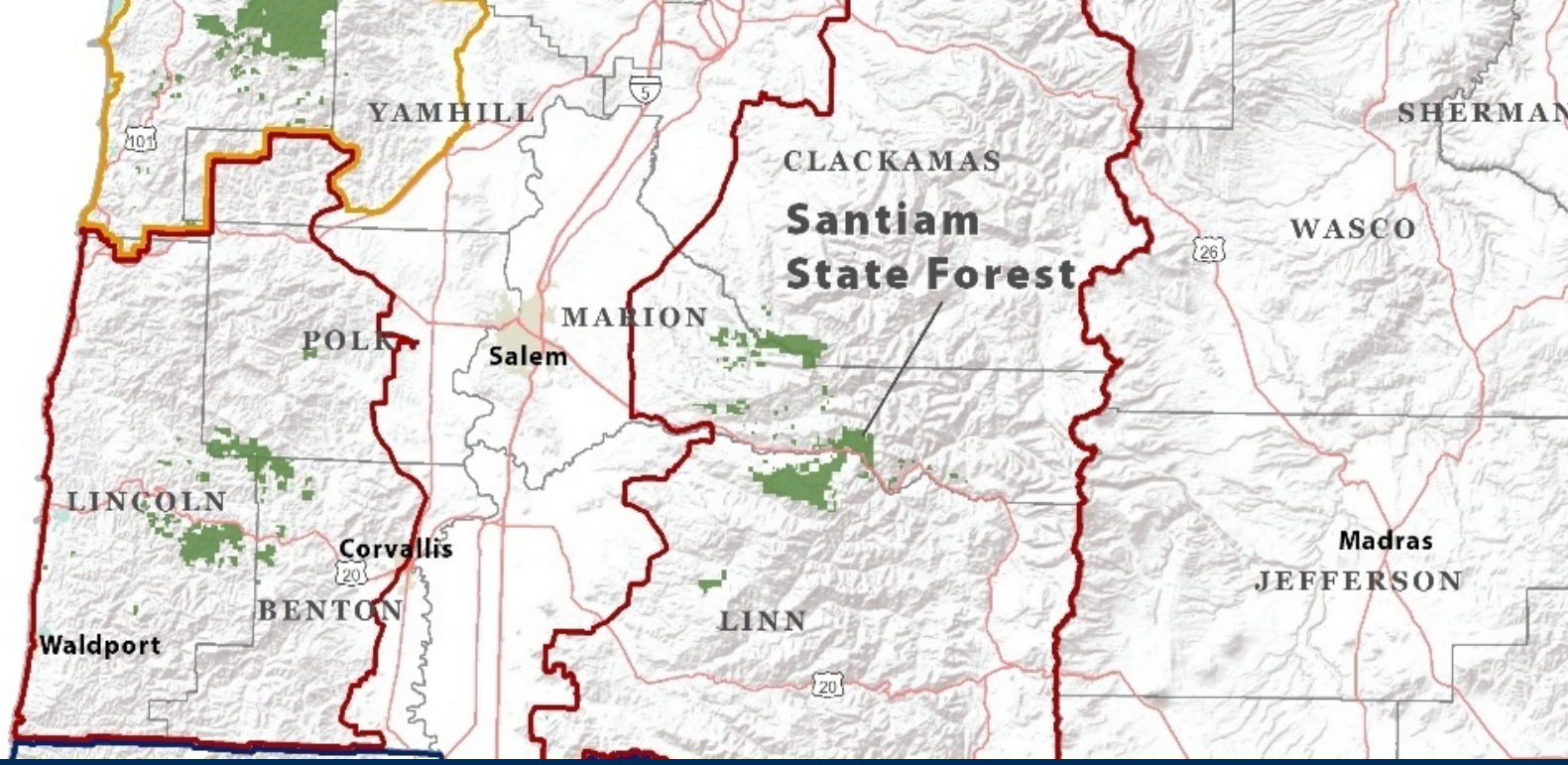
Western Oregon State Forests HCP

More Information

https://www.oregon.gov/ODF/AboutODF/Pages/HCP-initiative.aspx

Contact

Cindy Kolomechuk,
cindy.kolomechuk@oregon.gov,
503-945-7731



Western Oregon Comparative Analysis: cFMP, dFMP and HCP

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Comparative Analysis Purpose

- Compare expected outcomes for alternatives facing the Board of Forestry regarding the HCP and FMP
- Update understanding of expected outcomes of the HCP
- Expand analyses beyond financial implications to include conservation objectives
- Include current and draft FMP scenarios

Comparative Analysis Process

- HCP development process
  - Habitat models
  - Scoping and technical committees
- Forest Management Model
  - Linear programming model
  - Optimizes for net present value
- Coordination and analysis with topical experts

Scenarios for Analysis

- cFMP – current FMP
- dFMP – draft revision to current FMP
- HCP – Habitat Conservation Plan
- 75-year timeframe (2023-2097)
- Consider all identifiable differentiated outcome variables

Differences between BCA and CA

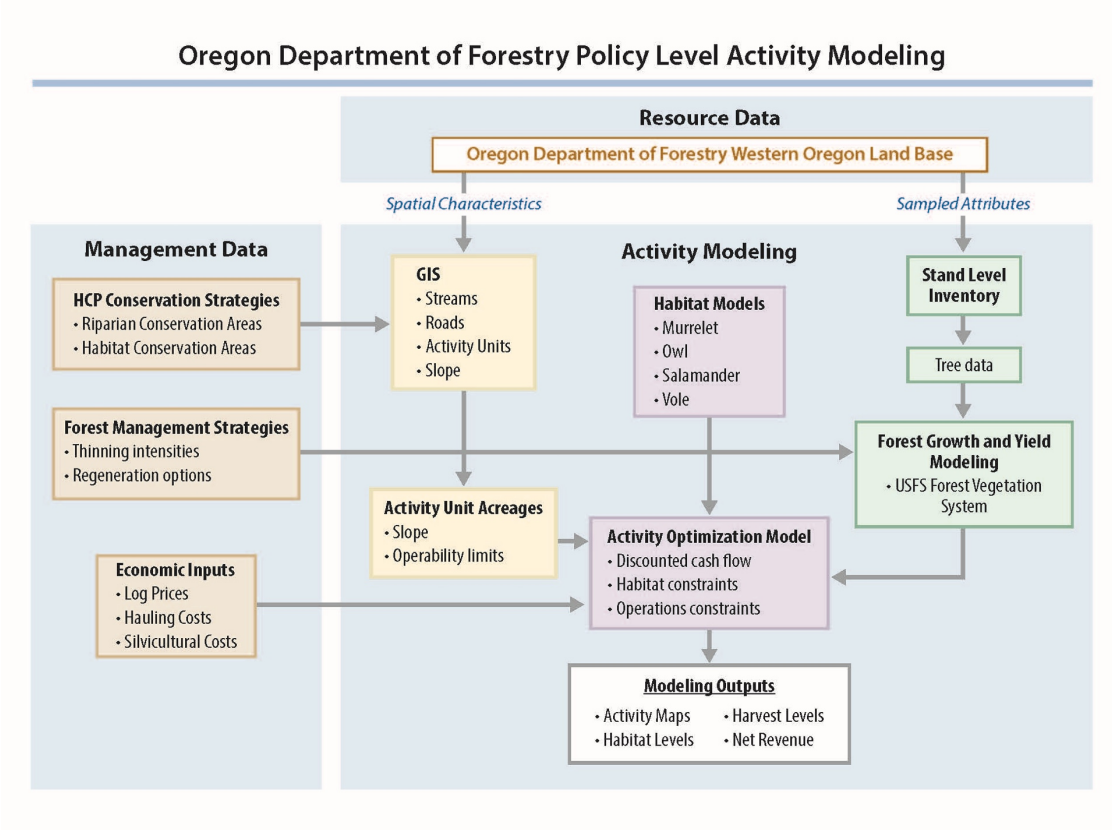
- More detailed spatial and non-spatial data on conservation areas and covered species habitat (HCA, LD, ELD)
- Clarity on HCP requirements
- Stand-level forest management data and harvest net revenue optimization model

Variables for Analysis

Variable	Units of Measure
Conservation	
Quality and Quantity of Terrestrial Habitat (Covered Species)	Acres of suitable and highly suitable habitat
Quality and Quantity of Aquatic Habitat (Covered Species)	Acres by stand age within riparian buffers
Covered species management and assurances	Acres subject to management and assurances
Covered species monitoring and assurances	Acres subject to monitoring and assurances
Quality and Quantity of Non-Covered Species Habitat	Acres by stand age and qualitative metrics
Habitat Fragmentation	Patch size (acres), Distance between patches (feet), and Interior: perimeter ratio
Economic	
Area Available for Harvest	Acres
Annual Harvest Volume	MMBF (million board-feet)
Annual Timber Revenue	Dollars
Timber Management Costs	Dollars
ESA Administration Costs	Dollars
Species Management Costs (Restoration)	Dollars
ODF Annual Operating Costs	Dollars
Timber Inventory	MMBF (million board-feet)
Revenue Payments to Counties: Pool of Revenue	Dollars
Social	
Carbon Storage	CO_2e metric tons (metric tons of carbon dioxide equivalent)
Recreation Opportunities	Facility/resource units and qualitative description
Cultural Benefits	Qualitative description

Policy Level Forest Management Model

- Built by Greg Latta (PhD) with ODF staff
- Stand-level, net harvest revenue optimization model (linear programming)
- Includes land-use constraints
- Includes application of species-specific habitat models
- Provides harvest, revenue, cost, forest inventory, carbon, and habitat outputs



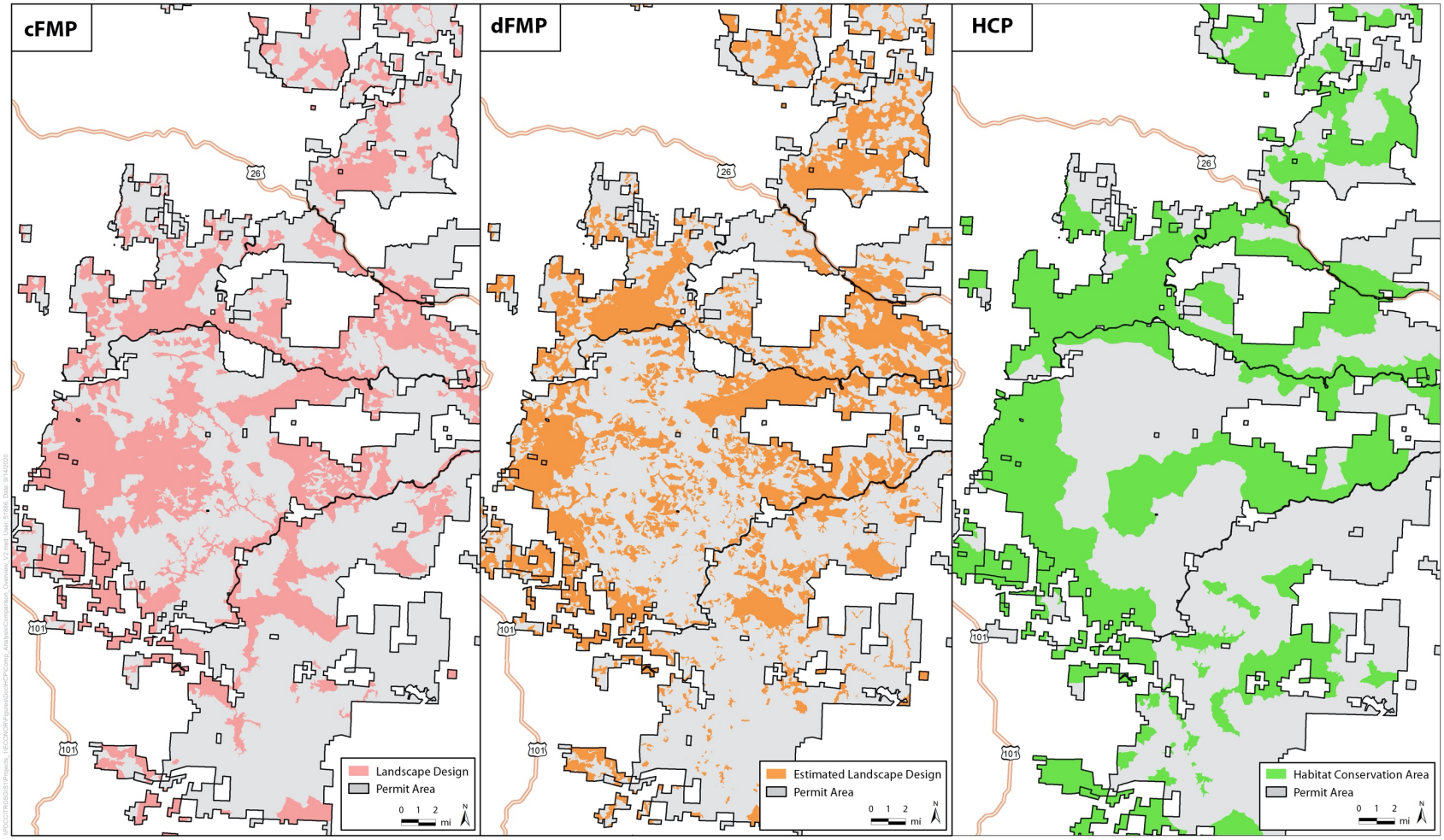
Key Model Assumptions

- 75-year timeframe
- 2017 Stand Level Inventory
- 2019 timber prices
- 2014 harvest costs
- Acres of new habitat constraints outside of landscape designs under cFMP (82k) and dFMP (95k)
- 3k acre increase in riparian buffers with HCP
- Some cost categories increasing over time
  - Species surveys, staff costs, ESA administration

Acreage Constraints (2097)

HCP has most acreage available for harvest, cFMP has least
cFMP has most constrained acres, HCP has the least

Example of Constraints on Landscape



Comparison between the landscape design (cFMP), estimate landscape design (dFMP), and habitat conservation areas (HCP)

HCP habitat protections in large clusters, cFMP & dFMP more diffuse

Conservation Area Configuration

Scenario	Number of Patches	Mean Distance between Patches (meters)	Mean Patch Size (acres)	Maximum Patch Size (acres)	Ratio of Perimeter to Area
cFMP	*231*	*500 (± 1,300)*	*770 (± 3,200)*	*41,300*	*6.2*
dFMP	*1146*	*180 (± 620)*	*150 (± 1,200)*	*28,800*	*9.2*
HCP	*255*	*2,400 (± 6,200)*	*1,100 (± 4,300)*	*47,700*	*2.9*

- HCP has the largest patch sizes (more resilient habitat)
- HCP has the lowest edge ratios (better species protection)
- cFMP has next largest patch sizes, next best edge configuration

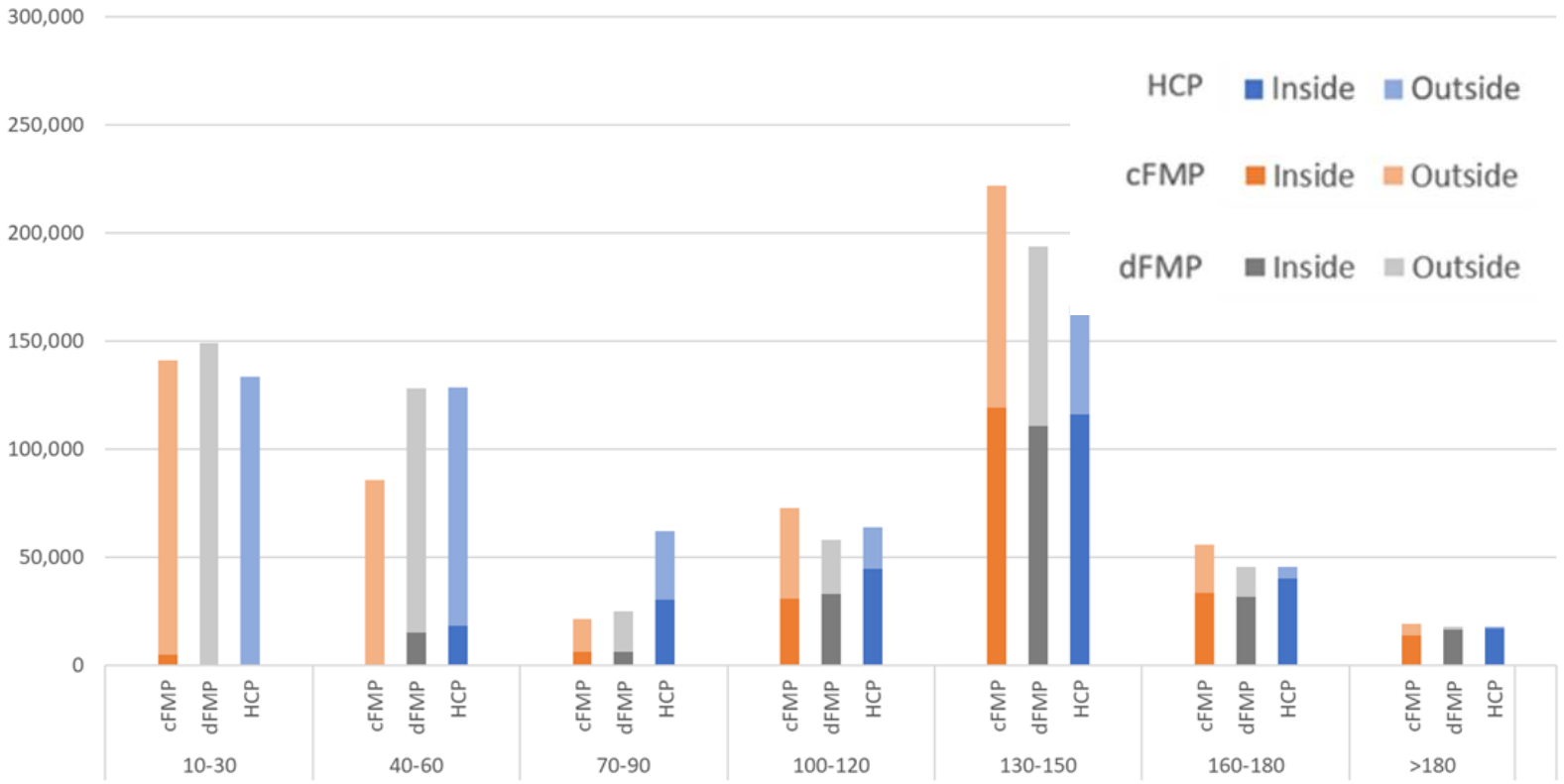
Alignment of Areas Designated for Conservation with Current Habitat

	Northern Spotted Owl			Marbled Murrelet		
	Highly Suitable	Suitable	Total	Highly Suitable	Suitable	Total
Acres	*3,400*	*21,900*	*25,200*	*1,600*	*11,000*	*12,700*
Amount protected by cFMP LD	*3,100 (92%)*	*16,500 (75%)*	*19,600 (78%)*	*1,500 (91%)*	*9,200 (83%)*	*10,600 (84%)*
Amount protected by dFMP ELD	*3,400 (100%)*	*21,500 (99%)*	*24,900 (99%)*	*1,600 (100%)*	*11,000 (100%)*	*12,700 (100%)*
Amount protected by HCP HCAs	*3,300 (98%)*	*16,900 (77%)*	*20,200 (80%)*	*1,600 (100%)*	*10,000 (90%)*	*11,600 (91%)*

- dFMP protects largest share of habitat
- HCP protects slightly more habitat than cFMP

Stand Age and Conservation Protections

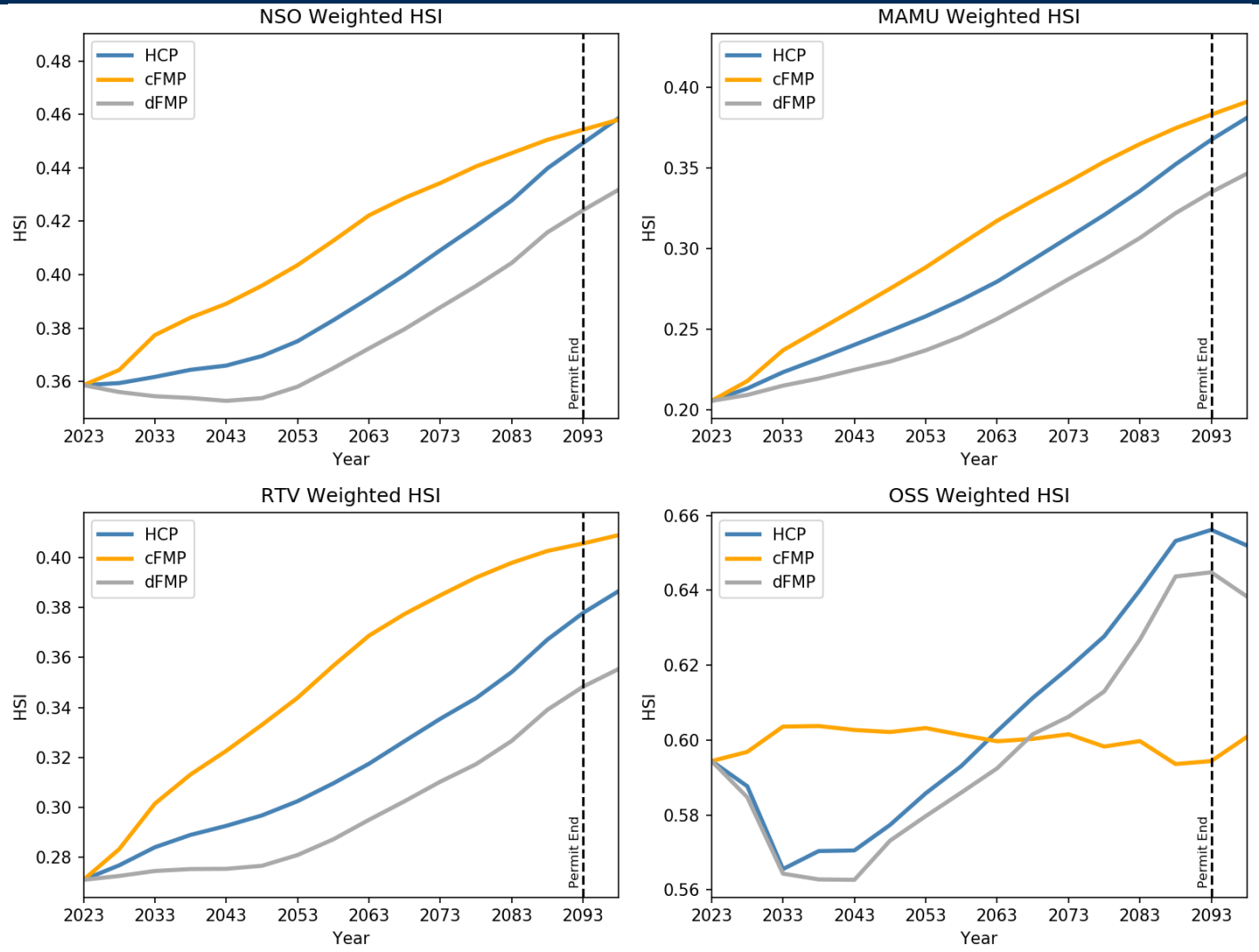
Average Forest Stand Age Class Distribution Inside and Outside Areas Designated for Conservation - 2083 - 2097 (acres)



While cFMP has older stands overall, HCP has the most old stands within protected areas.

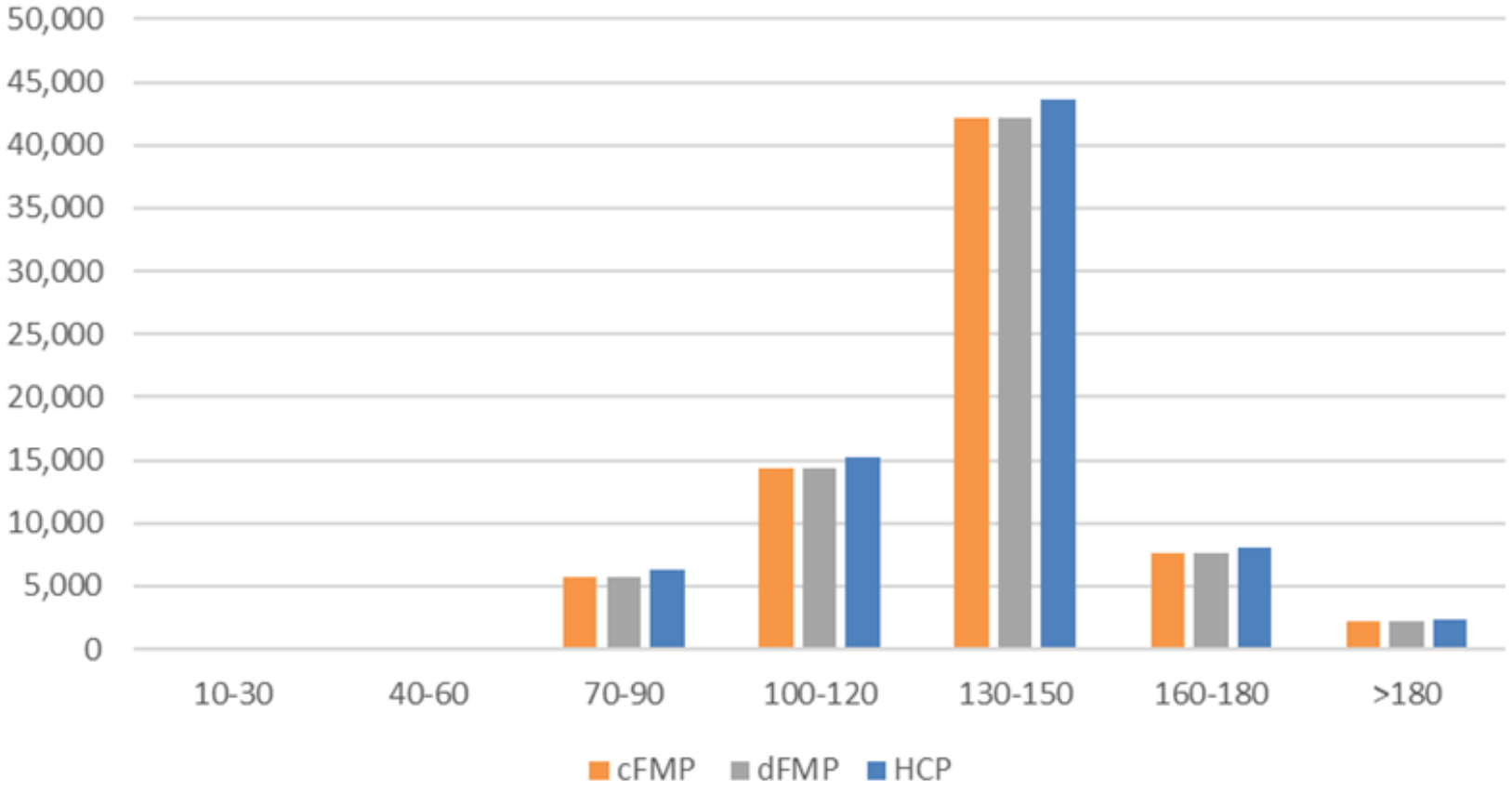
Future of unprotected stands are highly uncertain

Habitat Suitability



Suitable habitat increases for all three scenarios
cFMP has the most suitable habitat (weighted by area)
dFMP has the least suitable habitat (weighted by area)

Riparian Age Classes (2097)



Aquatic strategies for all three scenarios are strong; however the HCP provides the best potential outcomes.

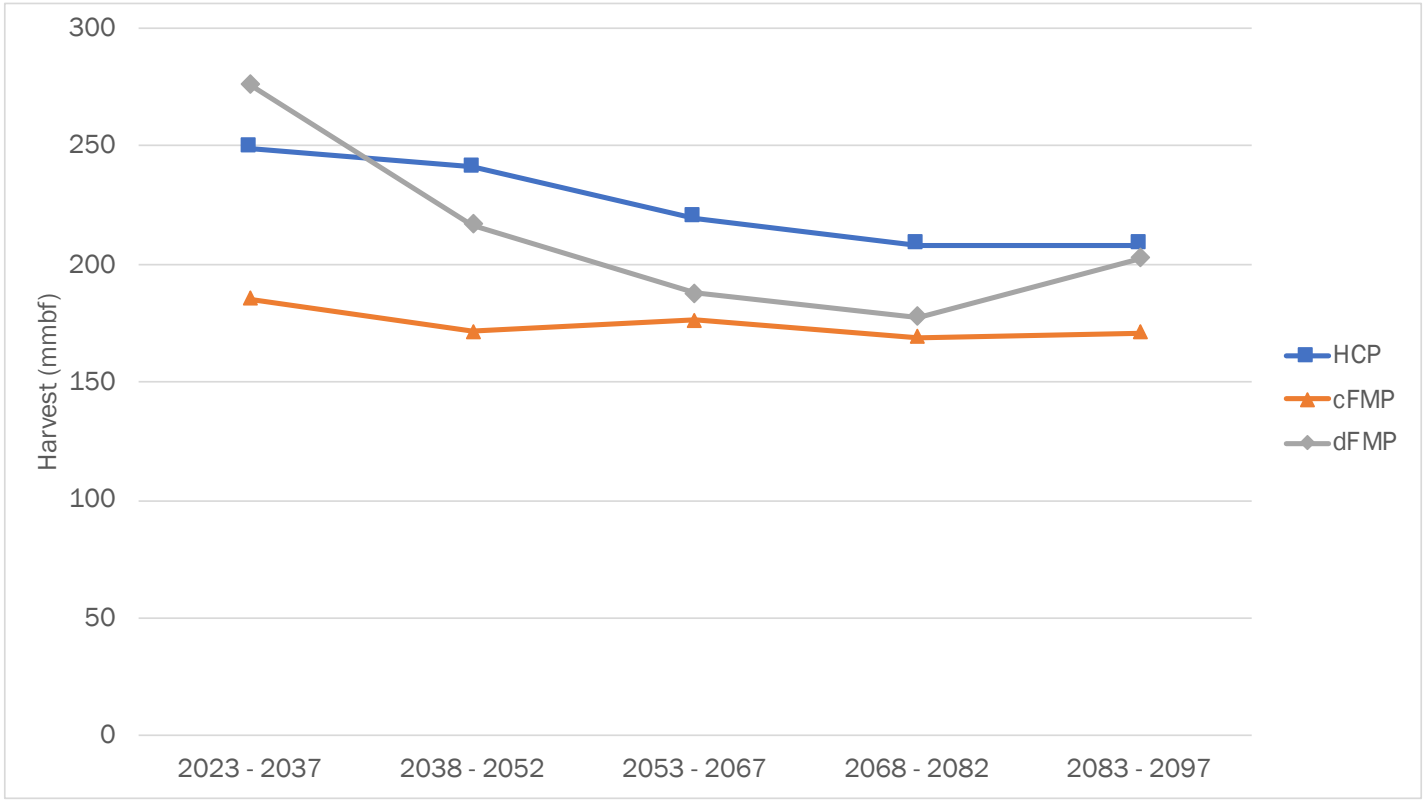
Timber and Economic Analysis

- Harvest Volume
- Harvest Costs and Revenue
- ODF Costs
- Net Revenue
- Distributed Revenue
- ODF Net Operating Income (NOI)

Acreage Constraints (2097)

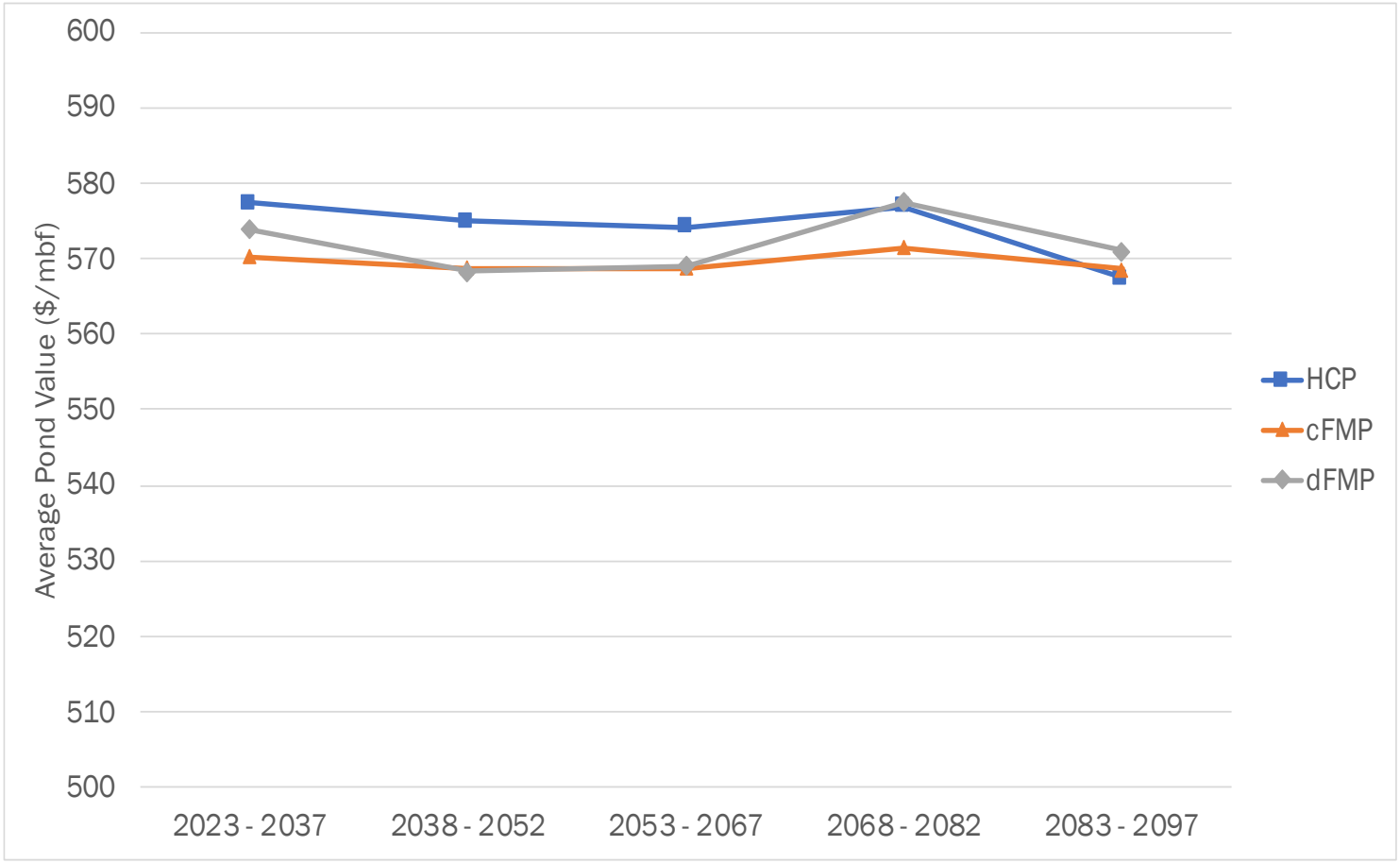
HCP has most acreage available for harvest, cFMP has least
cFMP has most constrained acres, HCP has the least

Average Annual Harvest Volume



HCP has the most harvest volume (225 mmbf)
Least under cFMP (175 mmbf)
Harvests decline over the timeframe for all scenarios

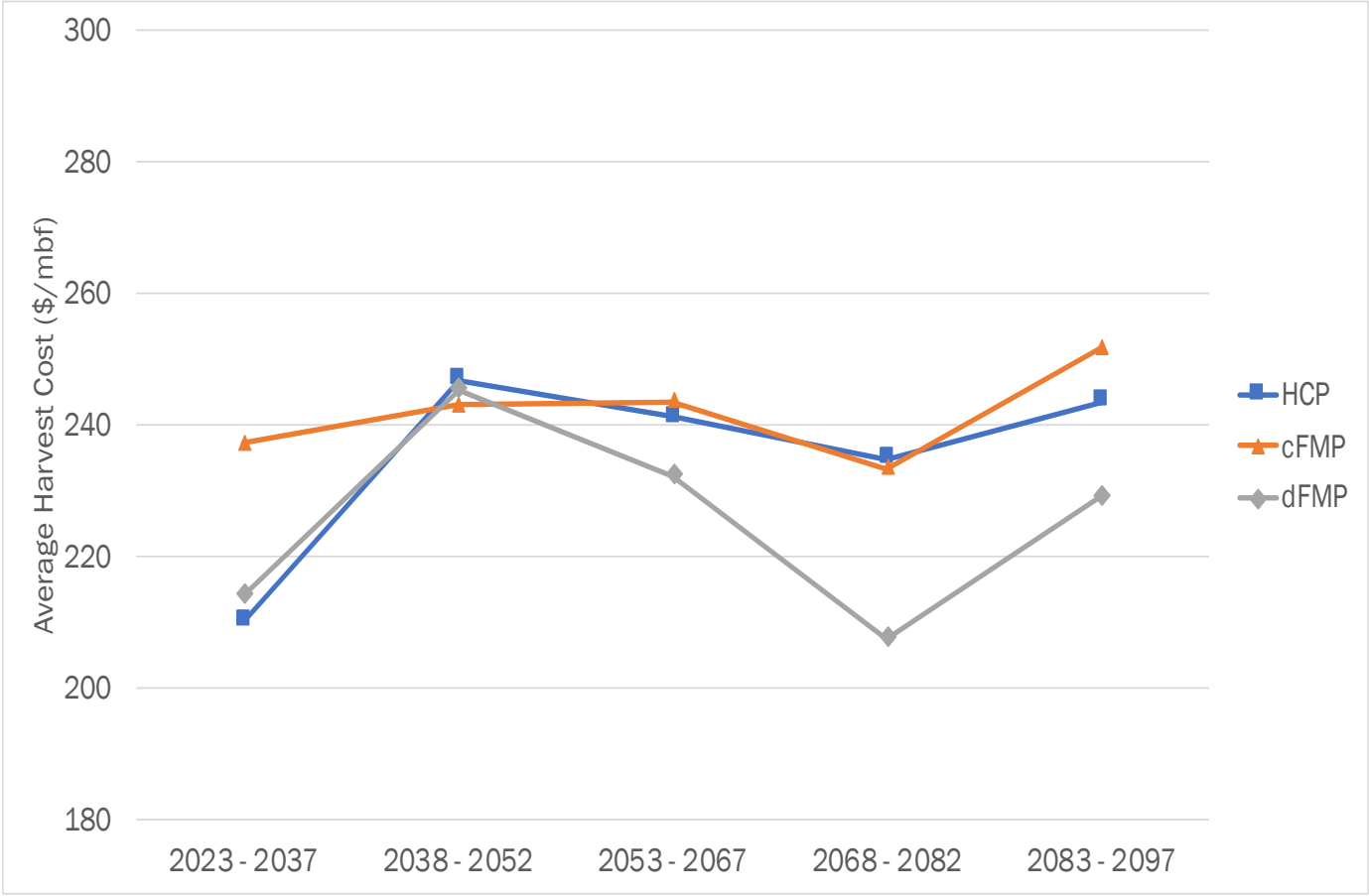
Timber Prices ($/mbf)



Note: Scale is zoomed in to the area of variation

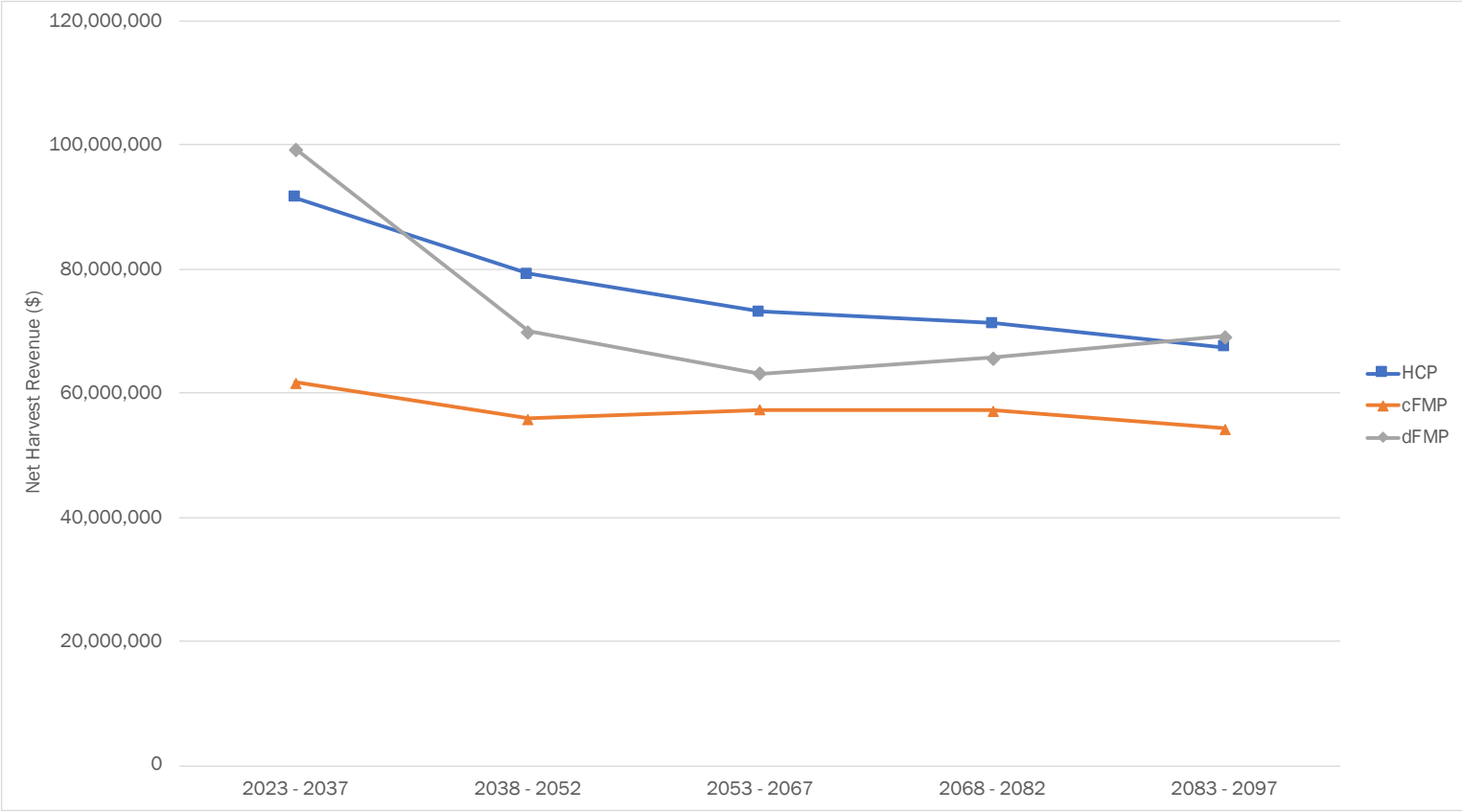
Timber prices (and value) per unit are generally strong with the HCP and dFMP

Per Unit Harvest Costs ($/mbf)



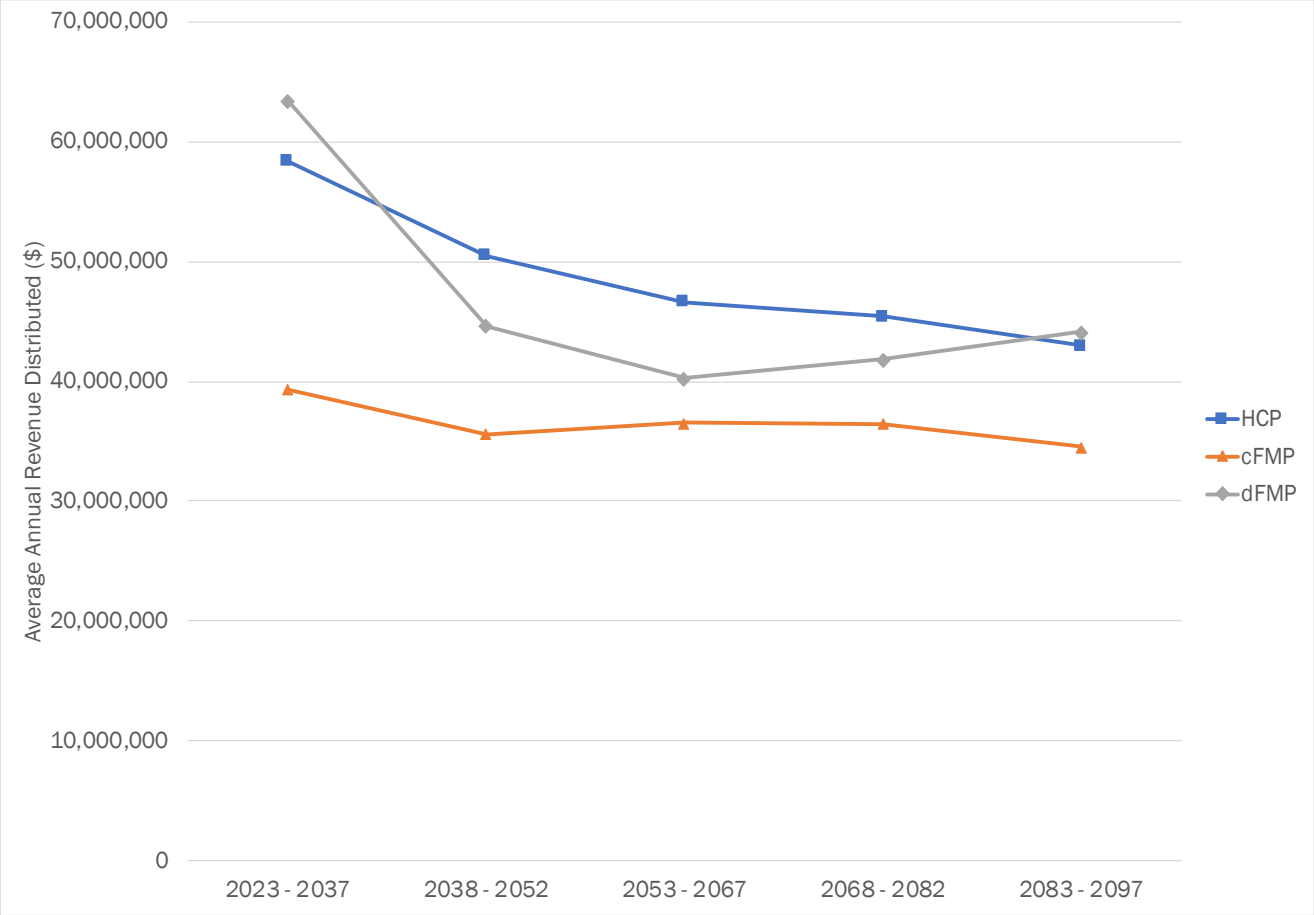
Harvest costs are generally lowest with the dFMP followed by the HCP

Annual Average Harvest Revenue



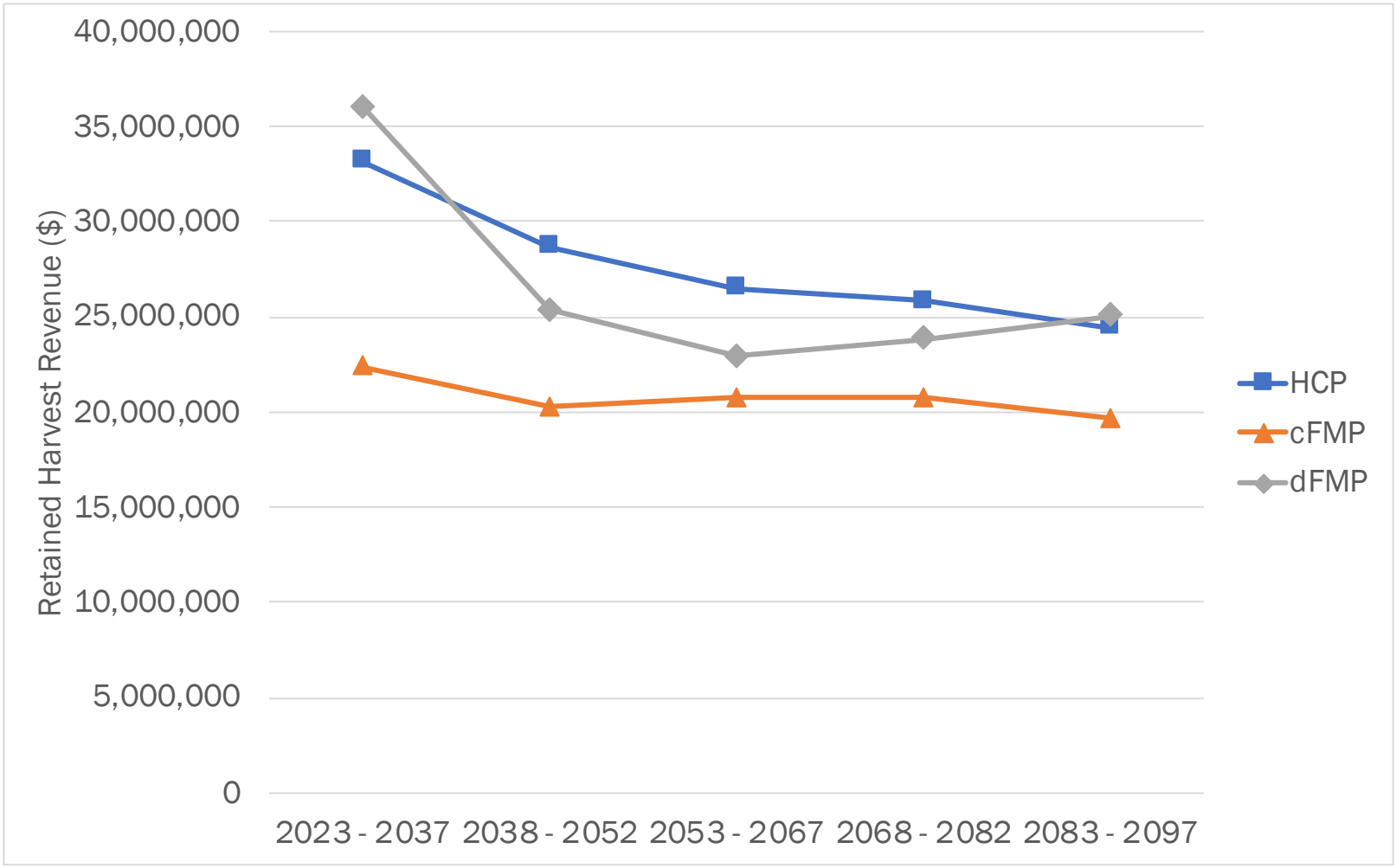
Harvest revenue (after harvest costs) is greatest with the HCP, followed by dFMP

Revenue Distributed to Counties



HCP provides the most distributed revenue ($3.7 billion)
cFMP provides the least distributed revenue ($2.7 billion)

ODF Retained Harvest Revenue



ESA-Related Costs

Cost Category	cFMP and dFMP	HCP	Annual HCP Cost Savings
ESA Administration	$ 3,049,197	$348,429	$ 2,700,768
Species Management[a]	$4,216,000	$3,095,296	$ 1,120,704
Total	**$ 7,265,197**	**$3,443,725**	**$ 3,821,472**

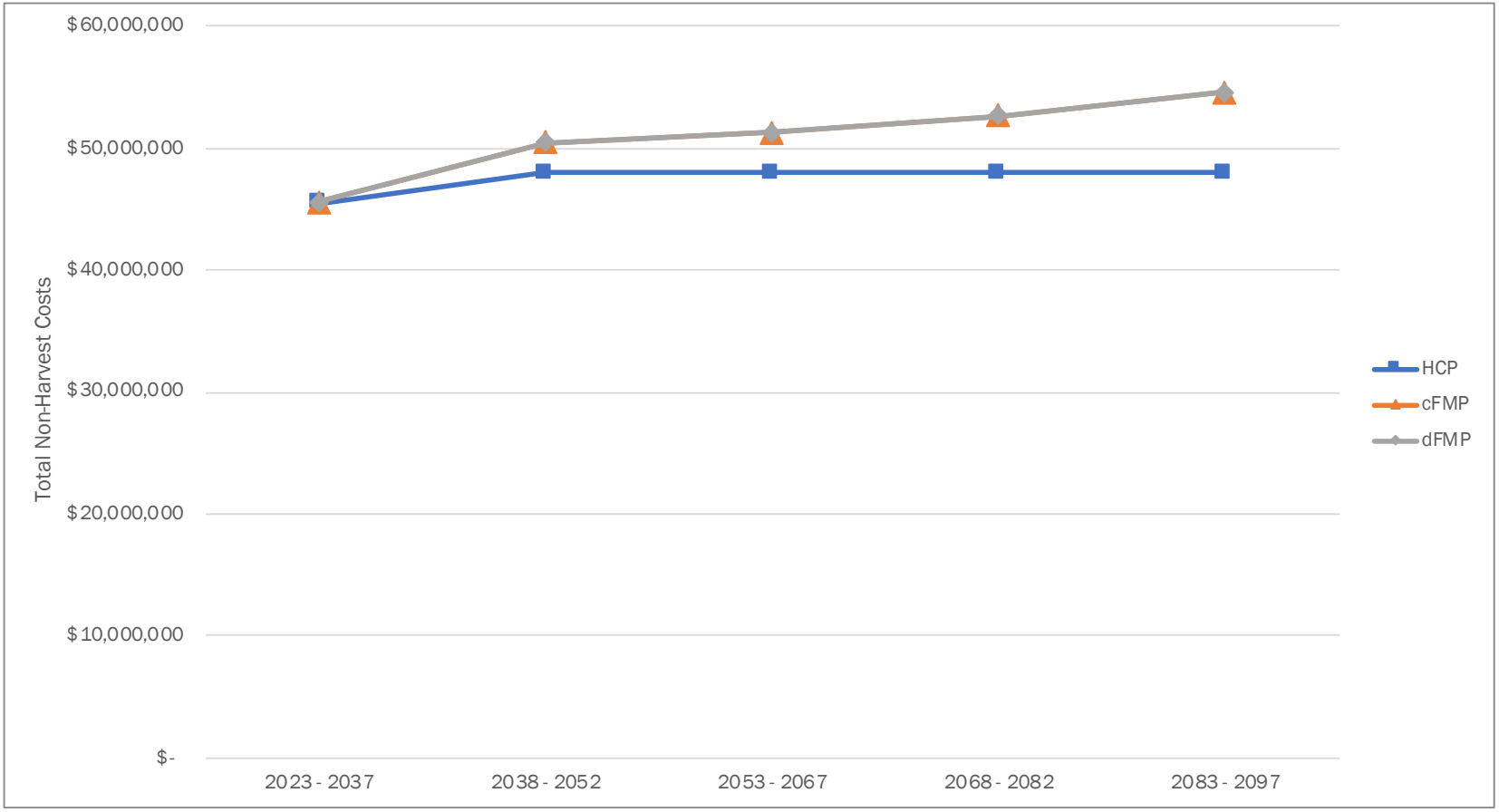
Note: [a] Assumes new species listing would result in over $1.7 million of additional annual survey costs for cFMP and dFMP.

ESA-related costs are lowest with the HCP, providing $ millions in annual savings

ESA spending under the HCP would be productive (beneficial) vs. compliance-only

Survey costs increase under cFMP/dFMP
ESA admin costs increase under cFMP/dFMP

Non-Harvest Costs

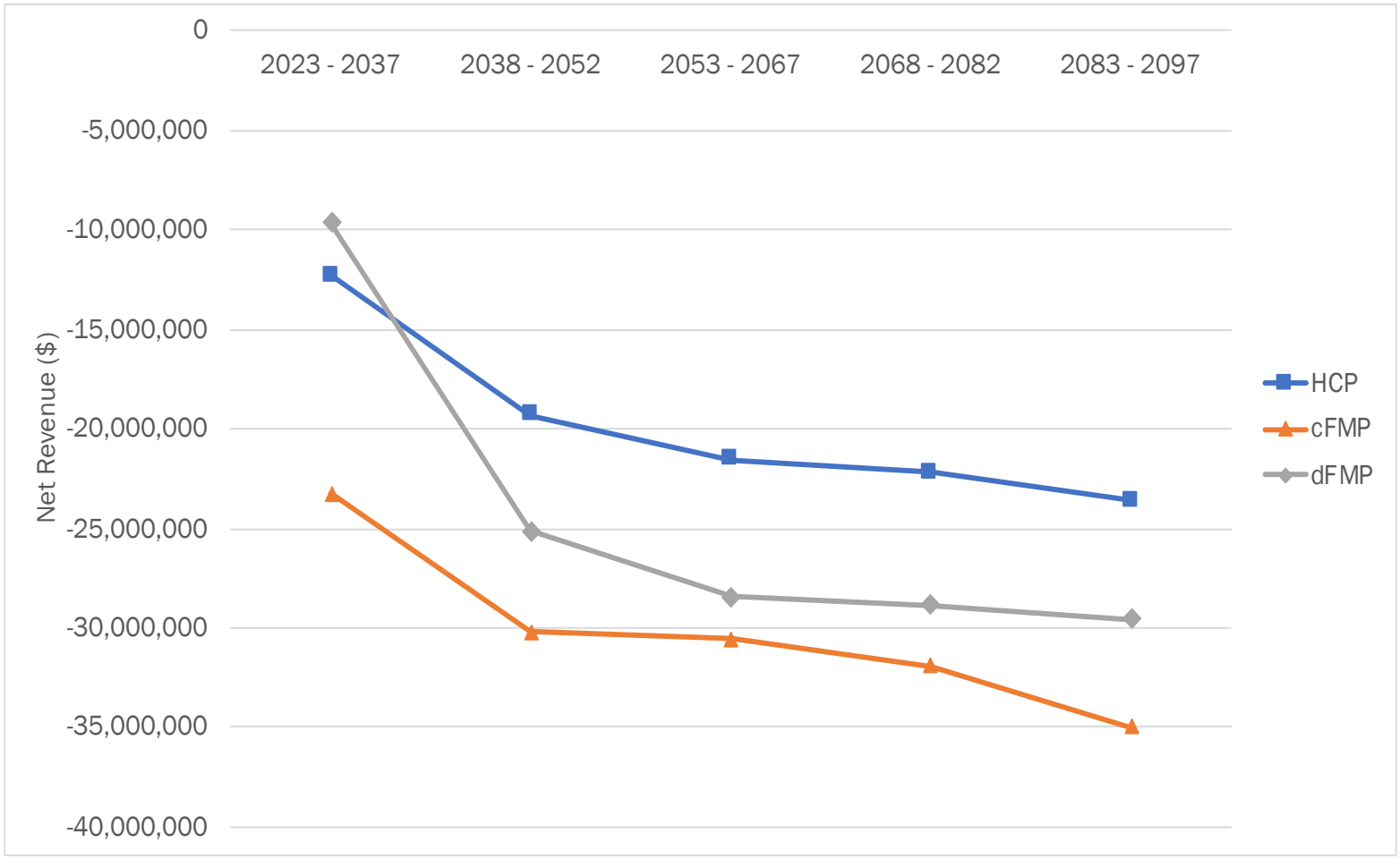


dFMP and cFMP have similar expected non-harvest costs

Costs increase for all scenarios for the first 10 years due to staff admin

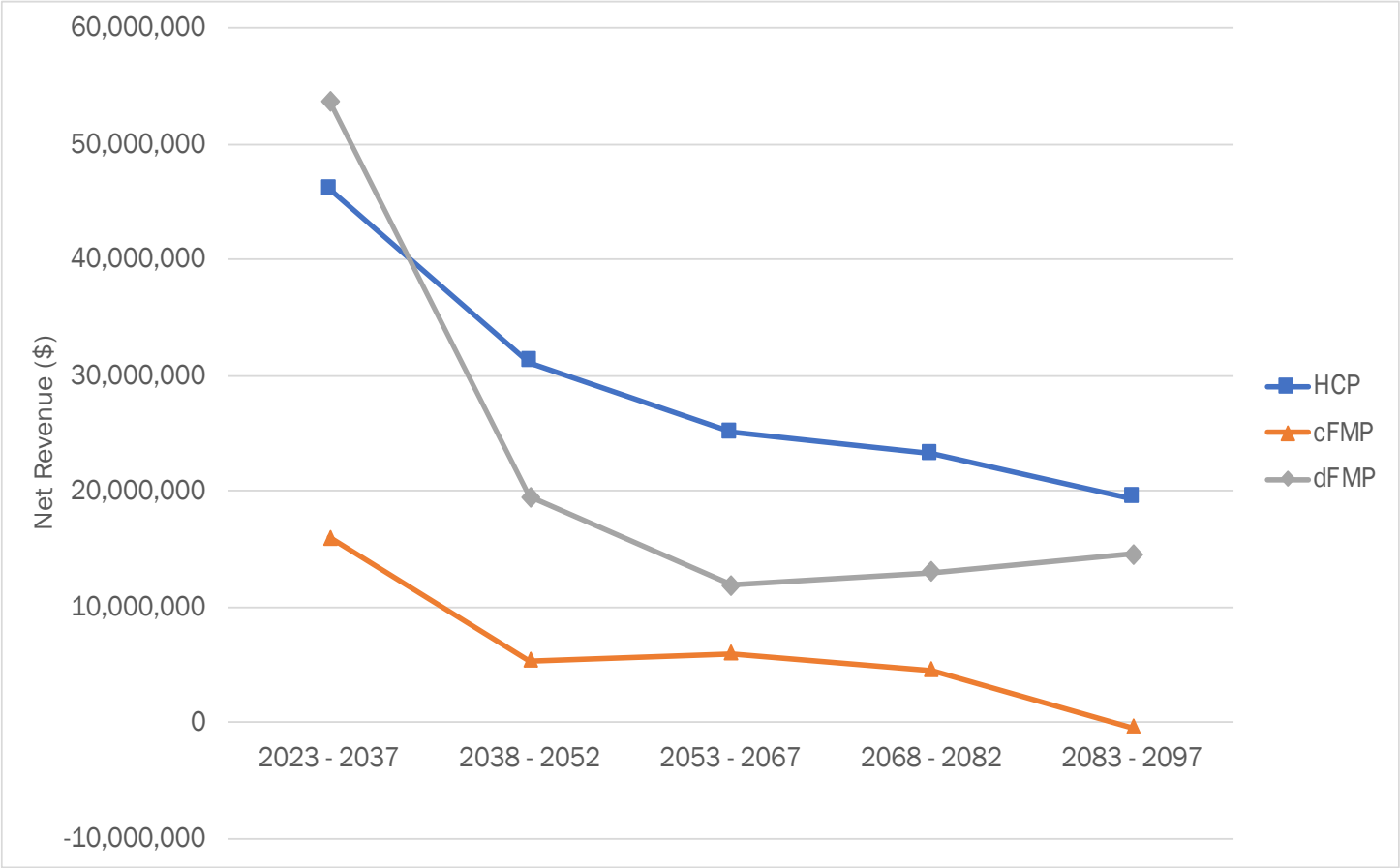
cFMP/dFMP Survey costs increase after 10 years, ESA admin costs continue up

Net Operating Income (After County Payments)



HCP provides the most favorable net operating income
cFMP provides the least favorable

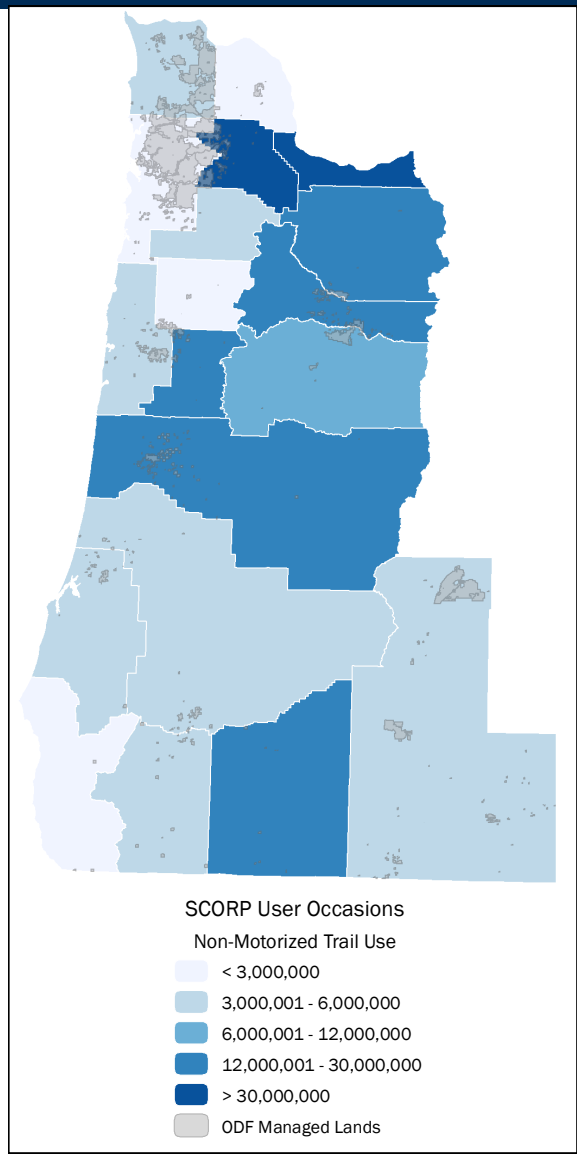
Net Revenue (w/out County Payments)



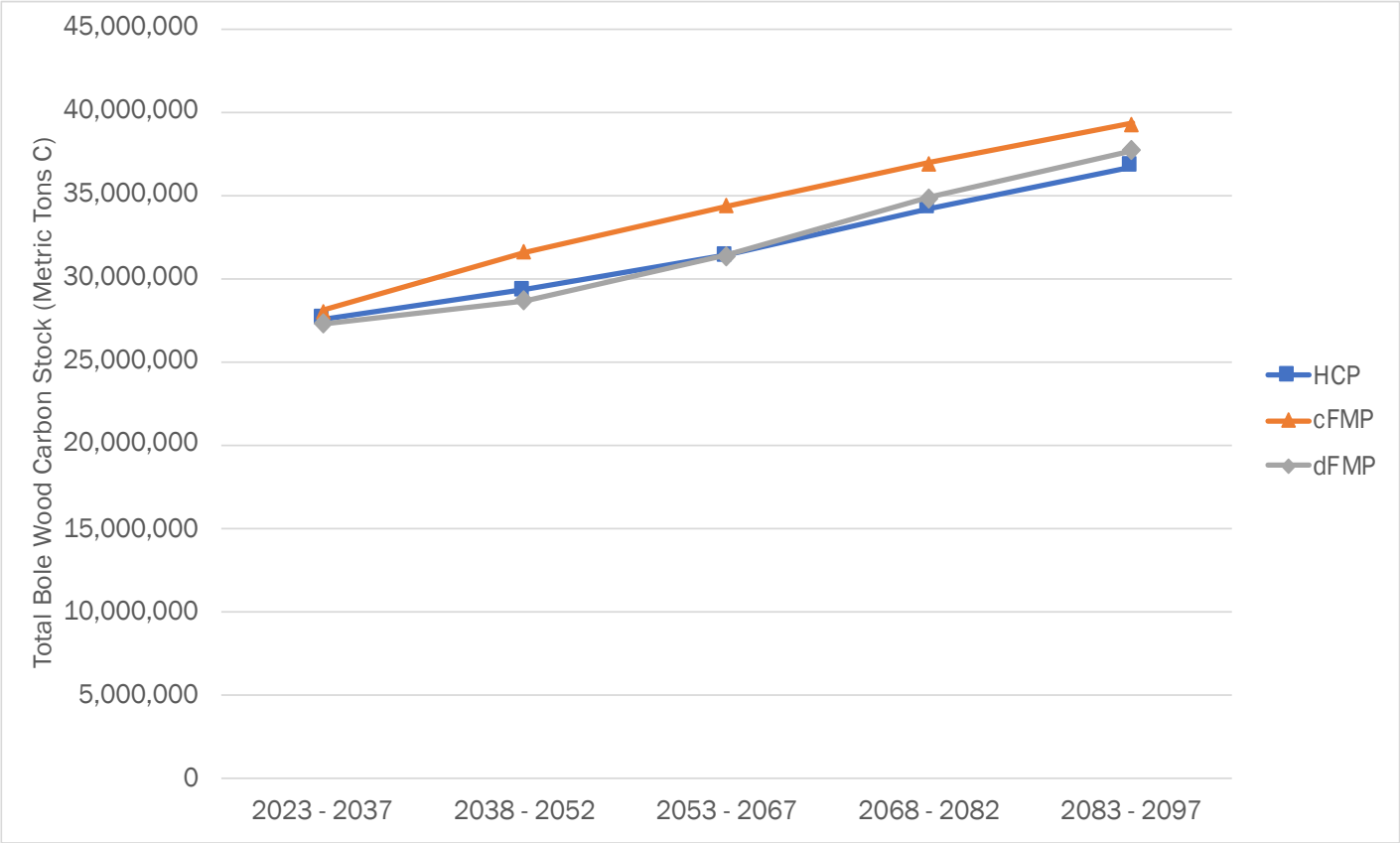
HCP provides the most net revenue ($1.3 billion sum discounted)
cFMP provides the least net revenue ($360 million sum discounted)

Social Analysis

- **Carbon** – storage increasing across all scenarios
- **Recreation** – no major differences across scenarios, more reliable funding and investment context with HCP
- **Cultural** - no major differences across scenarios, more reliable protections and investment context with HCP



Carbon Stock Volume



Carbon stock increases for all scenarios
Highest stock with cFMP (lowest harvest volume)

Risk Management Benefits of HCP

Risk Management Outcome	Rationale
Reduced habitat risk	Long-term commitments to habitat protection for covered species
Reduced timber harvest risk	Certainty of encumbrances from currently listed species and new species listings
Reduced litigation risk	Defined conservation commitments as well as timber management commitments
Reduced timber market vulnerability	Improved timber sale process to better time market and capture high market prices
Reduced disturbance event vulnerability	More resilient and connected habitat conditions for storms, wildfires, and other disturbances
Reduced outdoor recreation investment vulnerability	More predictable long-term land use designations provide a more predictable setting to plan and implement outdoor recreation investments such as facilities and trails.

HCP functions as an insurance policy across all categories of value provided by state forests

Final Scenario Rankings

		cFMP	dFMP	HCP
Conservation	Covered Terrestrial Species Habitat Quality	High	Low	Medium
	Covered Aquatic Species Habitat Quality	Tied	Tied	High
	Quantity and Quality of Monitoring	Low	Medium	High
Economic	Acres Available for Harvest	Low	Medium	High
	Annual Harvest Volume	Low	Medium	High
	ODF Costs	Low	Medium	High
	Net Revenue	Low	Medium	High
Social	Carbon Storage	High	Tied	Tied
	Recreation and Culture	Low	Medium	High

HCP provides the most overall benefit across all categories of analysis
cFMP is strong on conservation variables
dFMP is strong on harvest/economic variables
In several cases, two scenarios have very similar outcomes
Recreation and Culture outcomes qualitative, minor differences

Key Findings

- The **HCP Scenario** generates the **greatest total harvest volume** over the 75-year timeframe.
- ODF's **costs are lowest** under the **HCP Scenario**.
- **Net revenue is greatest** for the **HCP Scenario**, followed by the dFMP and finally the cFMP.
- The **HCP Scenario** would result in the **protection and stewardship** of **more suitable habitat for covered species** within areas designated for conservation relative to the cFMP and dFMP.
- The **cFMP and HCP both** have **strong conservation outcomes for terrestrial species**. The cFMP results in development of more suitable habitat for covered species in the entire permit area.

Key Findings (cont.)

- **HCP conservation areas** protect **larger, less fragmented** occupied and suitable habitat for covered species.
- **Aquatic strategies for all three scenarios are strong**; however the HCP provides the best potential outcomes.
- **Carbon sequestration is highest under the cFMP**, due to anticipated reductions in harvest levels over time.
- **All management scenarios** provide benefits for **recreation** opportunities and **culturally-significant uses**. However, the funding stability afforded by the HCP provides more opportunity for investment.