

Summary of Key Issues

Board of Forestry Issue Paper: Adapting the Northwest and Southwest Oregon Forest Management Plans (Key issues have been pulled out of the issue paper for this summary)

Structure-based Management (SBM)

The State Forests Program began implementing structure-based management a few years ago. Through the Board's work on their State Forests' work plan, and five years into FMP implementation, a number of questions have been raised relating to both the adequacy and effectiveness of SBM as implemented within the current FMPs. The following is a summary of those questions/issues, based on recent Board discussions:

Structure-based Management Efficiency

- Is SBM providing what the previous Board expected in terms of balancing GPV, and in balancing GPV efficiently?
 - Is SBM as adaptive as anticipated?
 - Is it a workable silvicultural model?
- What is the efficiency of SBM, both in terms of habitat creation and in producing quality timber?
- Are we cutting productivity in other areas to manage for SBM long-term?
 - Are we losing growth potential over the long-term through SBM (through less-than full stocking)?
- Compared to rotation-based management, is SBM preferable given the common age of our stands?

No specific protocol has been developed to address the general question of productivity; however, it is noteworthy to reiterate some results from the 2005 Oregon Timber Harvest Report relative to timber volume outputs, (the board feet per acre on state forestlands was achieved using SBM):

- *Private Industrial – 2,671 MMBF on 12 million acres = 223 bf per acre*
- *Private Non-Industrial – 486 MMBF on 2 million acres = 243 bf per acre*
- *State (under SBM) – 341 MMBF on .789 million acres = 431 bf per acre*
- *Federal – 396 MMBF on 15 million acres = 26 bf per acre*

Structure-based Management Effectiveness

- Can SBM 'deliver it all'— is that working out? (Harvest volumes are lower than expected; what other tradeoffs are being made—e.g. between wildlife species?)
 - 'If we build it (habitat), will they come (wildlife species)?'
- Do all forests have to be managed the same?
- Does complex structure have to be the same across all districts?
- Starting with the biological baseline and incrementally adding parameters may provide a better idea of the ramifications of different policy choices.
- Trying to get to the answer of whether the site productivity was less than anticipated in prior years or whether the plan is less productive than anticipated.
 - Interested in knowing whether the change in volume outputs is due to the land not being as productive as originally thought (maybe not, especially in the near-term with SNC) or whether the FMP is limiting it in ways we don't clearly understand.

Federal Endangered Species Act Compliance

Through the Board's work on their State Forests' work plan, and five years into FMP implementation, a number of questions have been raised concerning the issue of ESA compliance. The following is a summary of those questions/issues, based on recent Board discussions:

- What are the advantages and disadvantages of an HCP, take avoidance, or other mechanisms available for ESA compliance?
- What are the risks of a "take" with the take avoidance strategy, or some other ESA compliance strategy, vs. an HCP strategy?
- What are the advantages and disadvantages of slowing the HCP process?
 - If the choice is made to slow down the HCP process, is it desirable to continue to practice both HCP and take avoidance strategies simultaneously?
- Is it possible to pursue an HCP on one portion of the State forest lands, while practicing more intensive management on the other portion?
- What is the possible cash flow with take avoidance?

Forest Health

Forest health is currently a major issue that may influence much of the Board's work related to State Forests, and this is likely to continue to be the case for the foreseeable future. Recent Board discussions related to this issue include the concern about existing flexibility within the management plans to adequately deal with forest health issues, including with Swiss Needle Cast (SNC), and include the following questions:

- Do the current management plans allow for the appropriate site-specific prescription for the treatment of Swiss Needle Cast?
- Do the management plans ensure that forest health issues are addressed in an adequate manner so that it is not a limiting factor to achieving the full range of objectives anticipated by the plans?

FMP Strategies and Forest Practices Act Requirements

The following are some of the questions/issues related to FMP Strategies and FPA Requirements, based on these recent Board discussions:

- What are the implicit policy directions within the Aquatic and Riparian Strategies and Anchor Habitat approaches?
- What is the cost of implementing the Salmon Anchor Habitat strategies?

The decision to pursue an HCP was an important factor in terms of understanding the context in which these strategies were developed, and the implicit policy direction therein. During the late 1990s the Coho salmon were either proposed for listing, or listed under the Federal ESA. The Northern Spotted Owl and Marbled Murrelets were listed as well. The idea of an HCP was considered a viable approach to managing for threatened and endangered species, and a way to avoid the risk of State forest lands being increasingly encumbered by uncertain Federal take avoidance requirements.

In terms of the second key issue related to FMP Strategies and FPA Requirements (listed above), some information is provided by the recent H&H model. This project specifically analyzed, among many other issues, the cost of the Salmon Anchor Habitat (SAH) strategies over the ten years it is to be implemented. This analysis concluded that the "ten-year SAH strategies resulted in less than a 0.5% decrease in harvest volume and net revenues compared with no SAH strategies." (Harvest & Habitat Model Project, p.2) This analysis considered a ten-year time horizon due to the fact that the strategies expire after the first ten years of the plan.

Performance Measures

The following is a summary of questions/issues related to performance measure, based on recent Board discussions:

Performance Measures Process:

- Performance measures can inform whether or not we're achieving GPV.
- We need to be able to evaluate the trade-offs of different alternatives in terms of performance measures/metrics that in turn relate to GPV.
- What is the outcome we want for performance measures?
- Direct connection between performance measures and outcomes desired is needed.
- We need to get the performance measures/metrics nailed down, and they should relate to GPV.
- Capture the concepts that are derivatives of: ORS; OAR (GPV); Montreal Criterion; FPFO; and FMP.
- Do we need to establish a context and gain consensus and understanding about the role of Performance Measures and how they will be applied:
 - Long term
 - Short term
 - Factoring in dynamic ecosystem
 - Factoring in sustainability
 - How will these be used? i.e. evaluation of how plan is working in attaining GPV? Perhaps even a component of board and state forester evaluation would include how well we are attaining GPV.
- Use the adaptive management process to evaluate the questions being addressed by the performance measures, our progress toward the performance metric, what additional information is needed to assess attainment of the metric, interpretation of attaining/not attaining the metric.
- What are the roles of the Board and the Department in the performance measures process?
 - Policy
 - Management
 - Assessment and Evaluation Mechanism: (1) of the policy; (2) of the management
 - Analytical Process (the "Are We Achieving GPV? Process")
 - How and when to use Performance Measures?
 - Gauge Plans; Gauge Department Management/Implementation
 - Annually; Decadal anniversaries

Performance Measures Specifics (metrics):

- What occurs through the Department's planning processes to ensure as much of what you do is captured by local communities?
 - *Public involvement is a major piece of the development and adoption of the forest management plan and implementation plans. Ongoing meetings with FTLAC and SFAC, as well as public input processes during the annual operating plans will continue to in order to ensure involvement by interested stakeholders. New economic research studies initiated by Oregon Department of Forestry in Tillamook, John Day, Coos Bay and other locations will also help the program understand the importance of state forestland to local communities, and help identify economic and social benefits to these communities.*

- There is a difference between revenue being generated for counties and the responsibility and connection to communities that benefit from our forests.
 - Are we measuring the trends for people that get income from forests?
 - *A research study has been initiated with OSU to begin to better understand non-market economic effects of state forestlands on local communities. The outcomes of that study are anticipated to provide the Board with additional information on this topic.*
 - A set of indicators will tell us if we're achieving the economic goals in communities adjacent to forests.

- Important to look at a longer-term trend on harvest contribution over time ...past and present (for example, how much different are the modeling projections from what was harvested over the past 10 years?)
- Where is the tipping point in terms of how far can we push timber harvest without doing long-term harm to environmental and social values?
- What do we know about the performance of the FMP relative to maintaining and restoring habitat (review of data collected since plan adoption vs. review of assumptions)?
- Harvest levels – meeting expectations vs. combined sustainability of economic, environmental, and social values.
- Can the Board construct a model that can ultimately affect federal management?
- Are we thinking broadly enough about the social measures given the very high level of passion many have for these other forest values?
- Are the economic indicators the right place to house the community benefit measures? Community benefits manifest themselves a number of ways—economically, environmentally, and socially. Ideally, it is possible to develop community benefit performance measures in each of these categories.

SUMMARY: FINANCIAL, SOCIAL & ENVIRONMENTAL RESOURCE MATRIX

Issues	External Pressures	Status	Management Action Alternatives	Benchmarks	
Financial	Return on assets	Contractor performance	Modify contractor selection	Historical data	
	Current Revenues	Type and length of lease	Modify lease agreement	Appraisal	
Environmental	Returns on Permanent Fund	Extent of management authority	Actively manage portfolio	NCREIF data	
	Viability & Risk	Current portfolio	Incentive leases	Financial Accounting Standards Board	
	Non-productive land holdings	Fragmentation/inaccessible land	Privatize or exchange land	USDA/ERS land Index	
	Land	Soil degradation/depletion	Soil physical characteristics	Land improvements / investments	County and USDA/ERS data
		Erosion rates	Soil nutrient characteristics	Monitor nutrient/physical status	NRCS data
		Agricultural commodity prices	Total factor productivity	Monitor yield (productivity)	
		Agricultural input price	Agricultural uses: - Range - Rain fed farming - Irrigated farming	Monitor erosion rates Enforce contracts Ensure adequate bonding	Risk management guidelines/policies
	Water	Intensity of use	Accessible water resources	Recycle water resources	EPA data
		Rural/urban water use rates	Water quality and flow	Invest in infrastructure	Permanent data collection sites
		Run-off issues	Overdraft (wells)	Monitor runoff Monitor wells	
Climatic variability			Enforce contracts	Risk management guidelines/policies	
Forests	Population pressure	Forest inventory	Ensure adequate bonding	Time series	
	Rate of deforestation	Timber harvest	Monitor soil nutrient levels	State guidelines	
	Price of forest products		Riparian corridors Ensure adequate bonding Enforce contracts	Risk management guidelines/policies	
Minerals	Fossil Fuels extraction	Extraction rate		Government statistics and published data	
	Metal & Mineral extraction	Exploration & reserves	Maintain asset value		

Toxic Contamination	Mineral leases	Federal & state regulations	Enforce contracts Ensure adequate bonding	Risk management guidelines/policies
	Oil & gas leases			Water quality (runoff)
	Agricultural leases			Air quality
Biodiversity	Hunting (legal & illegal)	Map area of landscape features	Inventory landscape features	Endangered specie count
	Pollution	Biochemistry of soil and water	Proportion of protected areas	Resource inventory
	Change in land-use	Status of indicator species	Monitor indicator species	
Social	Community Economy	Status of critical habitats	Monitor critical habitats	Personal income surveys
	Population/Urbanization	Recreation leases	Economic diversification	No. Recreation days
	Recreation	Hunting/fishing permits	Land Exchanges	Focus groups
	Political	Membership in outdoor clubs	Sell or invest in recreation	Census data
		Endangered species		State statistics
		Endangered habitats		Public interest value comparables

Source: *Agland Investment Services, Inc.*