Received: November 6, 2018

To Whom it may Concern:

The Board of Forestry is taking input from citizens and interested parties on their November 7, 2018 staff report, which includes the definitions for goals and strategies found in the Planning Rule. Do these draft goals and strategies meet the intent of those definitions? (OAR 629-035-0030)

The questions (and my short answers) are:

Q: Are the proposed goals, strategies, and measurable outcomes sufficient to address the breadth of benefits articulated in the GPV statute?

- Unclear. The General statute and current rules for State Forest Planning are outdated, and too tilted toward active management and timber outputs (see the attached comments for explanation). The goals and strategies, while containing useful conservation concepts and descriptive conservation outcomes are not specific enough to provide useful sideboards, and are largely based on flawed economic and ecological assumptions. The two stated overall objectives of increasing conservation and financial viability, therefore, remain in conflict.
Science clearly rebuts the claim that harvested wood adds a net benefit regarding long term carbon storage and also the claimed need for active forest management treatments in riparian areas and within wetter coastal forests to reduce fire or "enhance" ecological values.

My more specific comments on this topic are attached.

Q: Do you believe it is in the best interest of the state to continue pursuing an HCP?

- Yes, but doing so will only work if it increases the current level of aquatic and terrestrial ecosystem conservation on State Forest lands. A Statewide HCP that increases the level of (in particular) aquatic ecosystem conservation, as well as water quality, recreation benefits, wildlife habitats, carbon storage and other values is preferable and could be more easily attainable than several separate HCPs for each Forest, under separate plans.

My more specific comments on this topic are attached.

Thank you for the opportunity to comment.

Sincerely,
Rowan J. Baker
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Written Testimony of Rowan J. Baker (Federal Fish Biologist – retired) 11/6/2018

Main points:

--The Board of Foresty (BOF) proposal for a new planning process is very unclear. It is particularly unclear why the BOF is interested in creating new, separate forest plans for State Forests without sufficiently specific sideboards or guidelines, unless it is simply to increase manager discretion.

<u>If the plans are to be revised:</u>

--More specific goals, strategies, and measures are needed. A sound framework for any new plan (or plans) for State Forest lands would clearly lay out the increases in conservation and financial viability that are to be obtained in each plan. However, I note that the two overriding objectives of increasing financial viability and increased conservation benefits remain in opposition. A more synthetic approach to optimization of both goals is needed if the new plan(s) are to be acceptable to the broader public.

--To improve conservation, I suggest you include the more specific goals of supporting Pacific salmonids and improving their habitats relative to current baseline indicators. I suggest you consider stream habitat complexity, hydrologic stability, sediment, large wood, temperature, and overall water quality improvement via best management practices that reduce road impacts, landslide/sediment impacts, and chemical application impacts, and that provide better small stream and wetlands protection).

--Increased small stream and riparian area protection, as well as large block protection, including longer harvest rotations, should be considered, in concert with and balanced appropriately with more reasonable financial and economic targets that do not conflict with conservation outcomes.

--The conservation community (and the BOF) should support the development and adoption of an HCP but only if it includes the above indicators and concepts and, in addition, plans for and helps mitigate the ongoing impacts of climate change, as stated in the goals/strategies document.

--State Forests are critical large blocks of relatively better forest and riparian habitats and offer a unique opportunity to support salmonid populations through periods of flooding, droughts, and critical thermal increases expected under all climate change scenarios for this Region.

--Oregon can make a huge contribution to regional carbon sequestration and storage by maintaining more large wood in streams, and moving toward longer rotations and larger block retention.

--Doing the above would clearly support broader local and regional economies. In balancing the two stated objectives, conservation outcomes should not be compromised but rather given a much larger context and more important role.

--To ensure financial viability, suggest you focus on making the case for public investment in the state forest program from the general fund and other revenue sources. Such investments are needed to protect the broad range of public values that the forests provide

/s/ Rowan J. Baker 1 Attachment

Attachment 1: R. Baker 11/6/2018

Comments on Chapter 629, Division 35 – Forest Management Planning):

Accessed here:
https://secure.sos.state.or.us/oard/viewSingleRule.action?ruleVrsnRsn=161827

Note: In general, these rules governing State Forest planning are part of the problem and are a primary reason why goals, strategies and plans based on them will not meet long term conservation objectives. I am commenting only on the underlined portions but there are other major problems with the rules.

Department of Forestry

Chapter 629

Division 35 MANAGEMENT OF STATE FOREST LANDS

629-035-0030 Forest Management Planning

(1) In managing forest lands as provided in OAR 629-035-0020, the State Forester shall develop Forest Management Plans, based on the best available science, that establish the general management framework for the planning area of forest land. The Board may review, modify, or terminate a plan at any time; however the Board shall review the plans no less than every ten years. The State Forester shall develop implementation and operations plans for forest management plans that describe smaller-scale, more specific management activities within the planning area. (**comment** – this seems to suggest a very large amount of discretion, and could negate effectiveness of conservation measures or expected conservation outcomes.

(2) Forest Management Plans must contain the following elements:

(a) Guiding principles, that include legal mandates and Board of Forestry policies. Taken together, these principles shall guide development of the management plan. (**comment** – "guiding principles"--see the Appendix included in the much longer set of proposed goals and objectives piece --on page 23--appear to include or be based on a false premise. Establishing a mandate for "active management", while employing a strictly limited concept of "financial viability" based mainly on "timber production and yield" will fail to achieve the best long-term outcomes for fish, fire, recreation, water quality, carbon storage and climate change resilience.

(b) Description and assessment of the resources (**comment** – this term is too general) on state forest lands within the planning area and consideration of the surrounding ownership in order to provide a landscape context. The description and assessment includes general statements of the current conditions of each of the resources (**comment** – again, the use of this word is ambiguous or too general), and the laws, policies, and programs that affect the resources and their management.

(c) Forest resource management goals, which are statements of what the State Forester intends to achieve for each forest resource within the planning area consistent with OAR 629-035-0020.

(d) Management strategies, which describe how the State Forester will manage the forest resources (**comment – i**n this case this definition of "forest" resources appears too limited; plans should include focused and highly specific strategies for other resources, such as fish, fish habitat, water quality, and recreation, etc...) in the planning area to achieve the goals articulated in the plan. The strategies shall identify management techniques the State Forester may use to achieve the goals of the plan during the implementation phase of the plan.

(e) General guidelines for asset management, which provide overall direction on investments, marketing, and expenses.

(f) General guidelines for implementation, monitoring, research, and adaptive management. The guidelines shall describe:

(A) The process for implementing Forest Management Plans;

(B) The approach for determining whether the strategies are meeting the goals of the Forest Management Plans; and

(C) The process for determining the validity of the assumptions used in developing the strategies.

(3) The State Forester shall be guided by the following stewardship principles in developing and implementing Forest Management Plans:

(a) The plans shall include strategies that provide for actively managing forest land in the planning area. (**comment –** this appears to allow or propose active management of all areas of the forest and will eliminate consideration of retention areas or conservation of larger landscapes and riparian and upslope linkages which may result in damage to other affected resources).

(b) The plans shall include strategies that:

(A) Contribute to biological diversity of forest stand types and structures at the landscape level and over time: (**comment** – too limited to only silvicultural concerns).

(i) through application of silvicultural techniques that provide a variety of forest conditions and resources (**comment –** unclear and still rather un-specific; needs elaboration and definition of what other public use resources are included); and

(ii) through conserving and maintaining genetic diversity of forest tree species.

(B) Manage forest conditions to result in a high probability of maintaining and restoring properly functioning aquatic habitats for salmonids, and other native fish and aquatic life, and protecting, maintaining, and enhancing native wildlife habitats, recognizing that forests are dynamic and that the quantity and quality of habitats for species will change geographically and over time. (**comment –** this is a start but it is not specific enough; what components of such habitats are to be restored or protected?)

(C) Provide for healthy forests (**comment --** this term is problematic and implies silvicultural emphasis only; this view is supported by the limited list of concerns or potential indicators of health below) by:

(i) managing forest insects and diseases through an integrated pest management approach; and

(ii) utilizing appropriate genetic sources of forest tree seed and tree species in regeneration programs.

(D) Maintain or enhance long-term forest soil productivity.

(E) Comply with all applicable provisions of ORS 496.171 to 496.192 and 16 USC § 1531 to 1543 (1982 & supp 1997) concerning state and federally listed threatened and endangered species.

(c) The plans shall include strategies that maintain and enhance forest productivity by:

(A) Producing sustainable levels of timber consistent with protecting, maintaining, and enhancing other forest resources. (**comment** – The phrasing above devalues non-timber resources. Furthermore, "sustainable levels" of timber depends on the definition of sustainable. What range or variable amounts of timber harvest can be expected, given fluctuating markets, lack of mill infrastructure, current impacts to other "forest" (or non-forest) resources, shifting public opinion, and uncertain financial constraints, in combination with ongoing impacts due to climate change?)

B) Applying management practices to enhance timber yield and value, while contributing to the development of a diversity of habitats for maintaining salmonids and other native fish and wildlife species. (**comment** – The phrase "while contributing to the development of" places the value of timber yield and economic value ahead of fish and wildlife resources, which is arguably not the case; this phrasing needs to be more balanced. These other values are significant in their own right, also need to be protected or enhanced, and may exceed "timber yield and value" in a strict sense. The "diversity of habitats" is a useful concept but will need to be more specific to ensure that the conservation outcomes expected are met, particularly for at risk salmonids, amphibians and other sensitive species, given climate-change-associated thermal and hydrologic constraints).

(d) The plans shall include strategies that utilize the best scientific information available to guide forest resource management actions and decisions by:

(A) Using monitoring and research to generate and utilize new information as it becomes available.

(B) Employing an adaptive management approach to ensure that the best available knowledge is acquired and used efficiently and effectively in forest resource management programs.

(4) The Board shall review and may revise the forest management plan developed by the State Forester to ensure that it is consistent with OAR 629-035-0020.

(5) The Board's approval of the plan represents its determination that activities carried out or allowed by the State Forester under subsection (6) of this section meet the obligation to secure the greatest permanent value to the state as defined in OAR 629-035-0020.

(6) Once the management plan is approved by the Board as provided in subsection (5) of this section:

(a) The Board shall adopt the plan as an administrative rule.

(b) The State Forester shall implement the plan through more specific, small scale or time limited plans that are consistent with the Forest Management Plan.

Based on the above here are my more detailed answers to the Questions posed regarding goals, strategies, and HCPs.

Questions for FMP Invited Testimony:

1. The November 7, 2018 staff report includes the definitions for goals and strategies found in the Planning Rule. Do these draft goals and strategies meet the intent of those definitions? (OAR 629-035-0030<https://secure.sos.state.or.us/oard/view.action?ruleNumber=629-035-0030>)

Answer – it depends on the intent, which is unclear and/or misguided. Is the intent to increase manager discretion? If so, then yes. If the goal is to provide the best outcomes for all resource values, then no.

2. Are the proposed goals, strategies, and measurable outcomes sufficient to address the breadth of benefits articulated in the GPV statute?

Answer – unclear because the goals and outcomes are not clear. Further, the strategies proposed are either not clear or are based on a faulty conceptual framework. This framework still appears to devalue (realtive to timber) all of the other non-timber "conservation benefits." In addition, in the much longer set of proposed goals and strategies, there is a false premise underlying the whole that "active management" will achieve all objectives. Similarly there are several false assumptions in the set of goals and strategies that undermine or ignore the large body of science that directly applies. This includes but is not limited to the assumption that harvested forest products contribute a net benefit to carbon storage over time (not true if waste products and final fate of carbon are considered), and that active management is always needed for fire prevention or protection (not true, particularly in wetter coastal forests, riparian areas/wetlands, or even drier and somewhat more fire prone areas. In many cases, natural fire regimes can be promoted to deliver other conservation values over time, e.g., snags and down logs for wildlife and large wood delivery to streams.)

Questions for HCP Invited Testimony:

1. Do you believe it is in the best interest of the state to continue pursuing an HCP?

Answer – Yes, but only if the goals, objectives and strategies for conservation benefits and resources (particularly those for water quality and listed T&E aquatic species) are better defined and the strategies employed in the HCP actually improve conservation of those resources.

Note – the following comments pertain to larger document of more specific goals, principles and strategies. I am only commenting on the underlined sections in the Aquatics (p 14-15) and General Principles (p 23) sections. However, there are significant issues that are not dealt with well in the sections on Roads, Recreation, and Climate Change/Carbon, among other sections. --RJB

Aquatics [PAGE 14]

The aquatic resource portion of the plan has five goals. These goals consider the direction provided in all Guiding Principles, but the primary guidance comes from Guiding Principles 1, 2, 4, 5, 8, 10 and 11 (Appendix A). (**comment** – this is good because principles 3, 6, and 7 which pertain to financial viability do not take precedence or override the need for aquatic conservation generally speaking. This part of the strategy makes sense and should remain in place. Removing it based on other comments or viewpoints would be legally and scientifically suspect).

Goals

1. Minimize and mitigate the short- and long-term impacts of climate change on aquatic resources.

2. Maintain, protect, and enhance aquatic habitats to promote properly functioning aquatic ecosystems that support the full range of aquatic species including salmonids, other native fish species including lamprey, beavers, amphibians and other aquatic organisms. (**comment** – this is good if the definition of properly functioning aquatic ecosystems considers the full range of material inputs, i.e. sediment/LWD, flow regimes, thermal regimes, habitat space and complexity, connectivity/fish passage, and overall water quality.

3. Maintain the natural functions and attributes of wetlands over time and ensure that no net loss of wetlands occurs as a result of management activities. (**comment-** this is good but in many damaged watersheds wetland losses should be reversed and the extent and connectivity of wetlands to streams increased or expanded.)

4. Manage recreational use of the forests to minimize adverse impacts to riparian and aquatic resources and adjacent ownerships.

5. Meet the requirements of federal and state regulations for aquatic resources such as the Federal Endangered Species Act and Federal Clean Water Act
and Oregon's Statewide Planning Goals (e.g., OAR 660-015-0000(5) and (6)).

Aquatics [PAGE 15]

Proposed Goals, Strategies, and Measurable Outcomes November 7, 2018 (**comment** – in some cases the outcomes are measurable but in many they are not measurable. Also the emphasis on monitoring is great but not if there are few or no measures that could be expected to move the dial in the first place.)

Strategies

1. Maintain a geodatabase that characterizes all stream segments and wetlands within State Forests by size, fish use, and flow duration and wetland persistence. This database will be regularly updated and used to inform and direct our management practices and conservation strategies.

2. Establish riparian buffer strategies appropriate to maintain, protect, and enhance ecological function of aquatic features (e.g., wetlands, lakes, ponds, bogs, seeps, and springs). (**comment** – this is vague and leaves the details of strategy development for later determination in individual plans. A minimum level of riparian buffer protection far above the levels provided in State Forest Practices for private lands is needed on State owned forests. What this does is insure that any HCP or legal coverage under the ESA for fish species can not be done at a broad, State level and development of an HCP for individual State Forests could be more difficult to negotiate and will take much longer; some State Forests may have pooer standards or may never have ESA assurances under this framework.)

a.Classify streams by stream size (small, medium, and large), presence of fish, and flow duration (perennial or seasonal). Seasonal streams are further classified as high debris flow potential or other. (**comment** – the size categories are too vague. Also classification does not guarantee protection.)

b.Establish and maintain standards, including a no-harvest buffer for all perennial streams, all fish streams, and seasonal streams of high debris flow potential. (**comment** – this leaves the details or actual level of riparian protections for later; what this does is insure that any HCP or legal coverage under the ESA for fish species can not be done at a broad, State level and development of an HCP for State Forest lands could be more difficult to negotiate and will take much longer; some State Forests may never have ESA assurances under this framework. It would be better, in my view to establish a stricter level of assurances of aquatic conservation and fish species protection for all State Forest Lands up front.)

c.Establish and maintain standards including an equipment exclusion zone, variable tree retention, and retention of sub-merchantable vegetation or shrubs for other and small seasonal streams. (**comment** – leaves the details for later – see above caveats.)

d. Apply specific strategies to other aquatic habitats (e.g., wetlands, lakes, ponds, bogs, seeps, and springs) to conserve, protect, and enhance ecological function. (**comment** – leaves strategy development for later – see above caveats.)

e. Align these management strategies with applicable species of concern strategies as published by state (ODFW) and federal (USFWS) agencies such as the conservation of amphibians in small headwater streams.

3. Apply alternative vegetation treatment within the riparian zone to achieve habitat objectives. (**comment** – this is completely unclear. What are these treatments and specifically why are they needed? This gives too much discretion to apply any active management treatment in riparian areas without scientfic justification. This strategy is flawed and not appropriate for State Forests).

a. Implement vegetation treatment projects using a multi-disciplinary approach and (where possible) through interagency coordination. (**comment** – this is o.k. but it does not mitigate for the above concern that in many cases active management within riparian areas or riparian reserves/buffers is not scientifically supportable. Large wood recruitment impacts and sediment impacts will occur if this is the general strategy or approach used.)

b. Monitor alternative vegetation treatment projects.

4.Enhance aquatic habitats to promote healthy aquatic ecosystems

a.Design and implement aquatic projects that promote the recovery of species listed under the federal endangered species list such as selected salmonid species.

b. Assess and identify opportunities for improving aquatic conditions for keystone species or a species of concern, as defined by federal or state agencies.

c. Report all riparian and aquatic restoration projects to Oregon Watershed Enhancement Board (OWEB) that qualify as OWEB projects.

(**comment** – in general, the above strategy for aquatic restoration under item 4 is o.k. Restoration efforts should focus on removing roads and road stream crossings in riparian areas within priority watersheds, fish streams, and critical connectivity corridors or habitat dareas that have beenegraded or simplified by past management activities.)

Measurable Outcomes

1. Department of Environmental Quality (DEQ) 303d listed streams listed for temperature (miles, count).
2. Streams in compliance with DEQ's cold water standards (percent)
3. Stream habitat quality that include large wood abundance, riparian shade, and reduction in fine sediment as measured by ODFW's aquatic habitat inventory program.

A stream listed on the 303d list means the stream has been identified as impaired or threatened due to an environmental concern (e.g., pollutants, temperature).

(**comment on above measurable outcomes 1-3**: These are clearly measurable or countable; however, I am not convinced that there are enough key conservation measures or strategies proposed that will move the dial in any direction and hence monitoring could be

completely irrelevant. The State's approach appears to be lacking in substance, yet heavy on monitoring to keep track of the failures – I say failures because habitat damage from storms, flooding, avalanches and road and stream crossing failures will continue unabated under this approach. The strategy section on "Roads" is particularly weak.)

4. Riparian buffers applied properly to streams by stream classification category (percent). (**comment** - width of buffers is completely vague and unspecific)

5. Stream enhancement projects completed (count and miles). (**comment** – see above; not all types of enhancement are equal. Prioritize road removal, culvert repair/removal/replacement; prioritize protection of LWD sources and reduction of fine sediment delivery.)
6. Fish passage barriers removed (count). Yes!
7. Fish habitat restored due to removed fish passage barriers (miles). Yes!
8. Slope failures that delivered large wood and gravel to fish-bearing streams from buffered high-risk sites (count). O.k. but some of these sites lack the largest LWD size component that is critical for habitat complexity over time.
9. Wetlands where riparian buffers meet or exceed extent-appropriate buffer width (percent). Not really o.k. All wetlands adjacent to or connected to riparian areas should be protected on State Forest Lands.
10. Change in extent of wetlands due to management activities (count and area).
11. Recreation-related stream crossings installed or replaced that increase fish passage or reduce sediment (count). Could conflict with the goal of reducing aquatic system impacts from recreation access.
12. Recreational trails removed or relocated from aquatic features (miles). O.k.

Guiding Principles [Appendix A, PAGE 23]

(**Comment** - above the Aquatic section, it says that principles 1,2,4, 5, 8, 10, and 11 are primary influence on management for Aquatics. Below, I have bolded the ones that apply when interpreting the Aquatic goals and strategies. This is generally a good schema. Please don't alter it based on other input or comments from timber interests or non-aquatic system proponents. It is too important and should be considered a legal minimum for ESA protection of listed fish species.)

Appendix A: Guiding Principles

Principle 1: The Forest Management Plan will be grounded in the management mandates for Board of Forestry lands as expressed in the Greatest Permanent Value (GPV) and Forest Management Planning OARs, and the mandates for Common School lands. (comment – however, this added language to principle #1 could be seen as in conflict with other needed outcomes that are highly desirable such as (e.g.) fish and aquatic conservation, climate change amelioration and carbon storage. The concept of Greatest Permanent Value must include these concepts, as well as the increasing value of State Forests for recreation, water quality sources, wildlife and foraging, etc.)

Principle 2: State forests will be managed, conserved, and restored to provide overall biological diversity of state forest lands, including the variety of habitats for native fish

and wildlife, and accompanying ecological processes. The Greatest Permanent Value and Forest Management Planning rules are the Board's expression of providing conservation. (Comment – GPV must include all the above concepts to remain valid)

Principle 3: The plan will provide revenue to ensure financial viability and sustain the values that support GPV.

Principle 4: The plan will provide for a range of social benefits for all Oregonians including direct and indirect financial contributions to local and state governments, ecosystem services, opportunities for public access and recreational use, support for diverse local employment, and a process for participating in the forest management planning and implementation process.

Principle 5: The plan will recognize that investments in forest and watershed restoration are necessary to achieve desired outcomes that align with the Greatest Permanent Value policy direction for Board of Forestry and the "greatest benefit for the people" standard for Common School Forest Lands. (Comment – o.k. as long as the investments also cover the costs of larger riparian buffers, larger block retention areas, where needed to achieve conservation objectives, and road and stream crossing removal and/or repair.)

Principle 6: The plan will be developed and implemented at a scale and pace that provide the appropriate geographic and temporal blend of economic, social, and environmental outcomes. (**Comment** - not clear at all, what does this mean?)

Principle 7: The plan will provide varying levels of economic, environmental, and social outcomes over time as conditions change. While this approach will result in short-term trade-offs among specific goals, over the long-term Greatest Permanent Value will be achieved. (**Comment** – The GPV concept needs work and elaboration. What all does it include?)

Principle 8: The plan will comply with other state and federal laws and rules.

Principle 9: Diverse input from Oregonians and a variety of interested parties will be a high priority throughout planning processes.

Principle 10: The plan will pursue opportunities to achieve goals through cooperative efforts with other agencies and units of local government, user groups, or organizations.

Principle 11: The plan will be implemented to adapt to climate change and mitigate its impacts on the management of state forest lands. The Plan will also contribute to climate change mitigation and sequester carbon. (Comment – this is critically important and will ultimately override all other objectives and principles.)

/end/