Minutes
Board of Natural Resources Special Meeting

October 15, 2015
Natural Resources Building, Olympia, Washington

BOARD MEMBERS PRESENT

The Honorable Peter Goldmark, Washington State Commissioner of Public Lands

JT Austin, Designee for the Honorable Jay Inslee, Washington State Governor

The Honorable Randy Dorn, Superintendent of Public Instruction

The Honorable Jim McEntire, Commissioner, Clallam County

Thomas H. DeLuca, Director, School of Environmental and Forest Sciences, University of Washington

Ron C. Mittelhammer, Dean, College of Agricultural, Human, and Natural Resource Sciences, Washington State University

CALL TO ORDER

Chair Goldmark called the special meeting to order at 9:05 AM.

All Board members introduced themselves. Chair Goldmark noted there was a quorum for the meeting.

Chair Goldmark states a reminder to members of the public who wish to make comment, they must sign up to speak prior to the start of the meeting.

PUBLIC COMMENTS FOR MARBLED MURRELET ALTERNATITIVES

Wyatt Golding, WA Forest Law Center, thanks the Board and DNR and US Fish and Wildlife staff for holding the special meeting to discuss long term conservation strategy. Mr. Golding comments on long term forest cover, and lack of functional habitat for marbled murrelet.

Lisa Ayers, Pacific County Commissioner, speaks to concerns from the counties regarding the HCP. Ms. Ayers states her concern regarding county revenue sources and potential impacts by marbled murrelet mitigation.

Dan Cotheran, Wahkiakum County, comments on fiduciary responsibility of DNR and US Fish and Wildlife Service regarding encumbered forest land.

Bill Peach, Clallam County Commissioner, comments on the alternatives presented by DNR, and proposed the Board look at alternatives that other factors are driving the change in population of the marbled murrelet.

Kara Whittaker, WA Forest Law Center, comments on implications of long term strategy on state trust lands in relation to marbled murrelet population and forest nesting habitat.

Lisa Nelson, Nassel River Valley School District, comments on possible financial impacts to schools and counties from the marbled murrelet long term conservation strategy, and possible mitigation strategies to offset those impacts.

Carolyn Boey, citizen, states her support and encouragement to the Board to adopt Alternative E for the long term conservation strategy for the marbled murrelet.

Greg Iedy, Biologist, states support and encouragement to the Board to adopt Alternative E for the long term conservation strategy for the marbled murrelet.

Russ Pfier-Hoyt, WA State School Director's Trust Lands Task Force, thanks DNR and US Fish and Wildlife staff for their collaborative work on the conservation plan. Mr. Pfier-Hoyt urges the chosen alternative for the long term conservation strategy meets the fiduciary responsibilities of the trusts.

Peter Goldman, WA Forest Law Center, comments on the proposed alternatives.

Maria Ruth, Blackhills Audubon Society, comments on predation of species in its nesting habitat in relation to the population, states concern of buffer sizes proposed in the alternatives.

Derek Poon, Citizen, comments his support on the alternatives presented by DNR and US Fish and Wildlife.

Mary Bond, Seattle Audubon Society, states her appreciation for the meeting today. Ms. Bond comments to her concern that the potential marbled murrelet habitat have a chance to grow and mature on state lands.

Matt Cominsky, American Forest Resource Council, states his intent to prepare further questions for the Board and DNR staff regarding the long term conservation strategy plan and the proposed alternatives to be presented during today's meeting.

Rod Fleck, City of Forks Attorney, suggests to the Board more clarity on details of the proposed alternatives being presented, and to continue sharing information with the public for clarity.

Shawn Cantrell, comments to the Board his support for the alternatives being presented, encouraging the board to increase buffer sizes to further protect the marbled murrelet nesting sites.

Kevin Schmetlzman, commends the Board and DNR and Fish and Wildlife staff for their collaborative efforts to develop and implement the long term conservation strategy plan and new alternatives. Mr. Schmetlzman states his support of Alternative E, and suggests Alternatives C & D be combine.

Linda Mertfelt, Seattle Audubon Society, comments on prevention of extinction of the marbled murrelet, suggesting expansion of existing NRCAs near Mount Rainier National Forest. Ms. Mertfelt suggests combining Alternatives C & D, and comparing that to Alternative E.

Kendra Smith, Skagit County, Ms. Smith thanks Commissioner Goldmark, DNR and Fish and Wildlife staff for their collaborative efforts on developing the alternatives to be presented today. Ms. Smith states concerns from the counties regarding the fiduciary impacts.

Charlotte Persons, Willipa Hills Audubon Society, comments on prevention of extinction of the marbled murrelet on the NW coast of Washington.

David Baine, suggests the Board and departments take into consideration things such as climate change and ocean acidification, etc., when deciding on an alternative and long term conservation strategy plan.

Kat Holmes, WA Environmental Council, thanks the Board for considering Alternative E, and urges the Board to consider proposed Alternative 4, as stated in a letter from WA Forest Law Center.

Art Wong, Tahoma Audubon Society, states his appreciate of the science that has gone into the creation of the alternatives being presented and discussed today.

MARBLED MURRELET
USFWS and DNR Proposed Alternatives Presentation
Kyle Blum, Deputy Supervisor for State Uplands
Bridget Moran, US Fish and Wildlife Service

Mr. Blum stated that the purpose of the DNR and USFWS presentation is to provide detail on the five jointly developed proposed alternatives for the marbled murrelet Long-term Conservation Strategy (MMLTCS).

Ms. Moran stated that the purpose of these proposed alternatives is a draft range of potential alternatives that represent conservation strategies to meet both agencies criteria. She stated that the joint agencies have developed a broad range of proposed alternatives through the SEPA/NEPA process as well as a range that represents a range of conservation strategies. Mr. Blum and Ms. Moran identified key questions that help develop the proposed alternatives.

The key questions are:

- Does the alternative address the Need, Purpose and Objectives?
- Does the alternative address the Endangered Species Act Section 10 issuance criteria?
- What habitat will be conserved?
- How will the forest be managed?
- How will potential impacts be mitigated?
- How will the alternatives affect the murrelet population?

Ms. Moran explained how each alternative was developed under the guidance of the board approved Need, Purpose and Objectives statement adopted for the project.

Ms. Moran presented information about the Endangered Species Act Section 10 issuance criteria. She explained that DNR intends to request an amendment to their existing Incidental Take Permit with a long-term conservation strategy. Ms. Moran shared the issuance criteria for the amendment.

Ms. Moran stated that habitat conserved for the marbled murrelet will be areas of long-term forest cover (LTFC) that will provide habitat for the marbled murrelet. She stated that known occupied habitat and inland forest stands that provide secure nesting opportunities will be the focus of what is conserved over the life of the HCP.

Mr. Blum explained that areas of long-term forest cover provide habitat through existing habitat conservation that provides marbled murrelet conservation benefit and marbled murrelet habitat conservation areas.

Mr. Blum also described that potential impacts will be mitigated by existing conservation commitments and marbled murrelet habitat conservation areas. Mitigation for habitat impacts comes from the growth of new habitat and improvement of existing habitat.

The details of each alternative were described by Mr. Blum and Ms. Moran. They shared how each alternative incorporates existing habitat conservation, marbled murrelet habitat conservation through special habitat areas, emphasis areas and marbled murrelet management areas, and how the forest will be managed inside and outside of long-term forest cover.

Dean Mittelhammer made a suggestion to analyze a combined alternative of C and D.

MARBLED MURRELET
Modeling the Effects of DNR Forest Management Alternatives Presentation
Dr. Zach Peery, University of Wisconsin, Madison

Dr. Peery stated the purpose of his presentation is an attempt to link the analytical model to a population model, to help understand how alternatives might influence murrelet population going into the future.

Dr. Peery continues, stating an addition purpose of today's presentation is to turn the metric of interest from a habitat metric to a population metric.

Dr. Peery describes the analysis method used in today's presentation to the board, as being Population Viability Analysis (PVA), stating it is an analysis which uses data in an analytical or simulation model to calculate risk of extinction or related measure of population viability. He discusses reasons why this method was used, saying PVA is a tool that helps make management decisions about species of conservation concern, determining extension risk of a particular species and determining viable population or recovery.

The five most common PVA applications are:

- Assessing extinction risk for a population or species
- Determine "MVP" needed to achieve the desired level of protection

- Informing population recovery -is the species still imperiled?
- Identifying key life stages or threats that should be managed (sensitivity analyses)
- Evaluating risks or benefits associated with different management options

Dr. Peery discussed absolute projections versus relative risk, describing absolute projections of extension risk are generally considered unreliable. He continues, saying assessment of risk should instead be made on a relative basis, comparing management alternatives.

Dr. Peery explained the biology of small populations, stating small populations are more likely to go extinct than large populations, which has shown to be true both in human and nonhuman populations. Studies have shown the smaller the populations, the sooner it is to go extinct.

Chair Goldmarks asks what causes the decline of small populations.

Dr. Peery replies, that the cause of the decline is based on both deterministic and stochastic factors. Small populations are affected by deterministic factors, such as habit loss, which can have a predictable effect on populations. He continues, stating small populations are also effected by stochastic factors such as weather, food supplies, etc., which result in a less predictable change in population.

Dr. Peery described how the PVA methods apply to marbled murrelets and forest management in Washington. He continued to describe the models used as Meta-population model, and Demographic model. Dr. Peery presents different types of analysis, describing risk analysis versus enhancement analysis, and their respective deterministic expectations.

Chair Goldmark asked if there is any indication that individual birds will make a choice about which types of habitat to nest in, if they have a choice between an outer-edge and an interior.

Dr. Peery replied, describing a study out of British Columbia which showed birds preferred to nest on edges; however it was an extremely different context. He continued, stating the complexity of studying the murrelet, and that details around nesting habitat are still being determined.

Dean Mittelhammer asked for background on dispersal mechanism, and how the dispersal between DNR and non-DNR lands is being modeled.

Dr. Peery replied that a fraction of marbled murrelet on DNR lands disperse and breed on DNR lands, and vice versa. He continued stating that not all murrelet that are born on DNR lands, nest on DNR lands; there is some dispersal back and forth.

Dr. Peery discussed habitat conditions and the landscape scale. Current habitat conditions were aggregated across each landownership to determine:

- Nesting carrying capacity
- Nest success

Dr. Peery showed habitat conditions on DNR lands projected forward in time 50 years, using the Forest Vegetation Simulator, assumed no change in habitat on non-DNR lands. He continued, discussing additional model rules and assumptions are:

- New breeders do not preferentially select high-quality habitat
- Breeders stay in the same landownership unless they are displaced by habitat loss
- Displaced breeders become non-breeders for at least one year
- Displaced breeders become breeders again if nesting habitat becomes available

Dr. Peery presented the Board with preliminary thoughts on the PVA results discussed today. He discussed the differences in state-level risk were small among the three alternatives and no change scenario. He continued, stating while the differences were small, Alternative E reduced state-level risk of extinction. Dr. Peery stated a greater risk was seen for the no change scenario, than the other alternatives.

Dr. Peery closed by presenting the next steps in deciding on an alternative:

- Model Alternatives C and D
- Formalize and conduct sensitivity analyses
- Write report and manuscript for publication
- Peer review both documents

Dean Mittelhammer commented, based on the two types of analysis done, there is a small difference between Alternatives A, B and E. However, there appears to be more hope in the enhancement analysis than in the risk analysis. What is the difference in the assumptions presented?

Dr. Peery responded that scientists do not know which environmental processes would allow us to see the improvement in the enhancement analysis. He stated that after spending a number of years studying murrelets in California to determine why the demographic rates were depressed, he is convinced that predation is a major cause of marbled murrelet population decline, however there are many other factors at play. He continued, stating as difficult as it was to study murrelets in California, where the population is more contained, murrelets are even more difficult to study in Washington. He noted the analysis is making an important assumption that we figure out the causes of murrelet populations to decline in Washington.

Director DeLuca commented, regarding the stochasticity which was incorporated into the analysis, whether the rates are realistic for this system. He stated that when we look at the differences between alternatives, we do not see do not any difference between the simulation runs and that there is an incredible amount of variation in the simulated stochasticity levels.

Director DeLuca stated that the levels are based on some level of variation that Dr. Peery observed in his work in California, and asked Dr. Peery if he were to put error bars representing the variation for each alternative, wouldn't they all overlap? Would there be no difference between A, B, or E?

Dr. Peery responded that it would be possible to see differences. He clarified that he is not depicting sampling variation, instead the model is depicting variability in the system. Dr. Peery continued, explaining that with thousands of model runs, and with a sound estimate for the rates of variation and stochasticity, the average outcome would be reasonably represented.

Dr. Peery stated that Director DeLuca raised a good point, which is the analysis assumes that the demographic parameters have no sampling uncertainty. He stated that is not the case; there is error sampling in these estimates. However, he concluded that the mean outcomes here are robust for quantifying stochasticity.

Director DeLuca asked whether Dr. Peery considered bracketing the analysis with absurd scenarios. Director DeLuca explained, for example, run one scenario with harvest activities from the 1970s and another with almost no harvest activity through the model, would one expect to see a difference between the two?

Dr. Peery responded that he would expect to see a considerable difference, particularly in the enhancement analysis. Differences would be apparent in the risk analysis too, but not as significant, because we have assumed that there are non-habitat stressors pushing the population down.

Commissioner McEntire commented, referring to the slide titled, "Risk vs. Enhancement Analysis." He asked Dr. Peery to confirm the following conclusions he drew from Dr. Peery's presentation. Commissioner McEntire asked, the risk analysis addresses habitat and environmental stressors, whereas the enhancement analysis assumes quantity of habitat is primary factor causing population decline. The food source at sea is assumed to be constant in the enhancement analysis so as not to depress survival rates. Commissioner McEntire continues, referring to the presentation given by Dr. Raphael at the September Board meeting, that we know much more about uplands and habitat than we do about the food source, food supply and food variety. Commissioner McEntire explained that he's trying to weigh the uncertainties in the model. He commented that the murrelets spend a lot of their time in the marine environment, but this is a "data free" portion of the population equation.

Dr. Peery confirmed all of Commissioner McEntire's statements. Dr. Peery explained that his perspective is influenced by his work in California, where there are some crude relationships. For example, warm water years result in fewer murrelet babies due to limits in rock fish and other prey. However the relationships are too crude to bring into the model.

Dean Mittelhammer asked when the Board will see the results for alternatives C and D.

Mr. Blum responded that he will be unable to provide those results until possibly the December Board meeting. He explained that staff is in process to get data to Dr. Peery, so that he can run the model on the alternatives, involving what DNR refers to as our "large data overlay." Mr. Blum estimates presenting to the Board in December or January.

Commissioner McEntire stated that it appears as if any of the options turns the OESF into at least a partially "zoned" region. His understanding is that the original OESF concept (as memorialized in the HCP), envisions OESF as unzoned and experimental.

Mr. Blum responded that Commissioner McEntire is correct. He explained that there are overlapping strategies for multiple species, for example, riparian, spotted owl, murrelets, and an entire OESF chapter in the HCP all overlap.

Mr. Blum continued, stating the question: what does it mean to "lock in" some of those spotted owl areas that DNR had previously negotiated flexibility for; and what does it mean, in particular, for the OESF? Mr. Blum stated he does not have the answer to this question, however, DNR and USFWS staff are working to balance the need to fulfill the vision for the forests and to meet fiduciary responsibilities.

Mr. Blum continued, explaining that if you don't make the assumption that those areas are designated as long-term forest cover, then you have to assume that they will be harvested. If you assume that the areas are harvested, then the acreage associated with those areas will become "take" in the analytical framework. In addition, those areas will lose mitigation value in the analytical framework. In order to offset the likely increase in take and decrease in mitigation, other acreage located in operable areas will need to be found and put into long-term conservation status.

Mr. Blum concluded when examining threshold targets to be met in spotted owl landscapes, DNR will only meet those targets far into the future, both in the OESF and outside the OESF. He stated, flexibility is not there currently, nor will it be until many decades into the future. Mr. Blum continued, stating it is worthwhile to include the spotted owl areas in the areas of long-term forest cover for the murrelet, due to the tradeoff.

Commissioner McEntire responded that the idea to zone the OESF by including spotted owl areas within the areas of long-term forest cover is a fairly significant policy departure, and should be carefully considered by the Board.

Dean Mittlehamer asks when the Board can expect the financial impacts for each alternative. He surmised that the presentation underscores the possibility that there will be very little difference in effect for the murrelet across these options. He asked whether the effect on the beneficiaries of the trust will also be little or huge depending upon which option the Board chooses.

Mr. Blum responded that the acres of long-term forest cover is the best proxy he can suggest to interpolate the relative performance of each alternative from a financial perspective. The financial impacts of each alternative will be available in the sustainable harvest calculation DEIS, and that information will be available closer to spring.

Director DeLuca commented on the opportunities for experimentation in OESF looking into the future. He stated that within the alternatives are a myriad of opportunities for research, including for habitat improvement or enhancement strategies. He continued, if we do end up with a situation where the unzoning is lost due to prioritizing murrelet habitat, we still have and should pursue, opportunities for research. Director DeLuca continued, there are so many unknowns, for example can we improve habitat through management, can we pursue management that avoids decreasing habitat quality. He closes, adding, we can and should pursue that historic dream for OESF that hasn't been realized in terms of research opportunities.

Chair Goldmark commented that the Board has been in session for five hours, during which time considerable information was presented from the public, USFWS and DNR staff on alternatives, and Dr. Peery on population impacts.

Chair Goldmark, on behalf of the Board, thanks DNR staff for their work in preparing the presentation. Chair Goldmark states that the comments and presentations represent a major component of the overall information which the Board will use as it makes a final decision on Alternatives.

Meet adjourned at 2:53pm.

Approved this 1st day of December, 2015

Peter Goldmark, Washington State Commissioner of Public Lands

absent

JT Austin, Designee for Governor Jay Inslee

via conference call

Randy Dorn, Superintendent of Public Instruction

via Conference Call

Jim McEntire, Commissioner, Clallam County

via conference call

Ron Mittelhammer, Dean, College of Agricultural, Human, and Natural Resource Sciences, Washington State University

via Conference Call

Thomas H. DeLuca, Director, School of Environmental and Forest Sciences, University of Washington

Attest:

for

Meagan Gillum, Board Coordinator