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TO: TFW Policy Committee
FROM: Mark Hicks, Adaptive Management Program Administrator 
SUBJECT: WDFW Proposal Initiation Request

On September 4, 2019 Chris Conklin with the Washington State Department of Fish and Wildlife (WDFW) provided me (Administrator) with a Proposal Initiation (PI) request for a project previously discussed with TFW Policy (Policy) - Assessing Changes in Uncertainty during Adaptive Management: A Case Study of the Washington State Forest Practices Habitat Conservation Plan. On December 20, 2019, and again on January 16, 2020, Tim Quinn and Aimee McIntyre with the Department of Fish and Wildlife met with me to discuss questions I might have with their proposal.

This memo serves as the Administrator's portion of the first stage in considering new project proposals – Initiation and Screening of Proposals. Contained herein you will find a:

- Summary of proposal;
- Recommendation of applicability and value to the Adaptive Management Program (AMP) including identifying those proposals that should not be included in the process;
- Recommendation of proposed track for AMP development;
- Summary of next steps if proposal is approved by Policy.

My recommendations to Policy are provided in adherence to the advice provided in the Forest Practices Board Manual Section M22-8, Guidelines for Adaptive Management Program.

During this first stage of proposal initiation and screening, Policy has the opportunity to deliberate over proposals and consider the information provided by the Administrator. The Policy Committee is to consider proposals for their relevance and suitability to the Adaptive Management Program as well as timing of implementation, including urgency and appropriate sequencing. The Policy Committee is advised to consider budget implications and potential impacts of the proposal on the CMER work plan.

Summary of the Proposal

The proposal¹ is designed to provide a historical accounting of the Forest Practices Habitat Conservation Plan (FPHCP) adaptive management program that includes critically important adaptive elements that are often underappreciated, i.e., the need to continually characterize uncertainty (science lead with policy support) and the risks of that uncertainty to natural resources management (policy lead with science support) under the FPHCP.

To accomplish this the project proponents will:

- Examine the history of AMP studies since 1999.
- Document the reasons why each study was funded with respect to expressed and perceived scientific and policy uncertainty.
- Evaluate the degree to which those studies have contributed to resolving policy issues within the FPHCP.
- Assess how a reduction in scientific uncertainty may have affected policy perceptions of risk, and how new scientific information may have led to the policy resolution of outstanding management issues without requiring changes to management.

More specifically the proposed work is envisioned to be composed of eight tasks:

1. Characterize the history of adaptive management, research, and monitoring of the FPHCP,
2. Identify the key uncertainties (Schedules L1/L2; CMER work plans, etc.) and expectations for addressing them;
3. Describe the projects and the research approaches used, i.e., effectiveness monitoring, extensive status and trend monitoring, intensive/validation monitoring and rule tools projects;
4. Highlight the results of research efforts organized by research approach. This includes developing an understanding for the policy outcomes of the research efforts.
5. Assess how well study results addressed key uncertainties from a policy makers' perspective.
6. Describe policy makers' satisfaction with ultimate policy outcomes based on new knowledge, i.e., were outcomes rationale, fair, transparent, decisive, true to Forests & Fish goals, etc.); and, contingent on task 7,
7. Conduct an inquiry as to why policy makers were dissatisfied with certain policy outcomes, and how the AMP process could be improved to avoid future dissatisfaction.

¹ The full proposal is provided in Appendix A, and was updated on January 15, 2020 by the project proponents to provide greater clarification their proposed process will remain on a Policy track if funded.

Proposal Initiation

Consistent with one of the two pathways provided in the Forest Practices Board Manual, this PI was delivered by an Adaptive Management Program (AMP) participant, through the Adaptive Management Program Administrator (AMPA).

Before proceeding further the AMPA is directed to assure the proposal identifies:

1. The affected forest practices rule, guidance, or DNR product;
2. The urgency based on scientific uncertainty and resource risk;
3. Any outstanding TFW, FFR, or Policy Committee agreements supporting the proposal;
4. How the results of the proposal could address AMP key questions and resource objectives or other rule, guidance, or DNR product; and
5. Available literature, data and other information supporting the proposal.

The proponents have reasonably provided their perspective on these, and I will additionally address them below as part of my Assessment of Management and Resource Implications.

Assess Adaptive Management Program Applicability

The Administrator is to assess a proposal for its applicability and relevance to the Adaptive Management Program, i.e., whether it would affect how forest practices are conducted with respect to aquatic resources, or whether it is a directive from the Board to include within the AMP. In this step the Administrator is also to consider outstanding agreements including any formal agreements from TFW (1987), FFR (1999), or current Policy Committee agreements related to the issue, and determine if they are interpreted correctly in the proposal. The Board Manual further provides that proposals “are initiated as requests for investigation of potential changes to forest practices rules, guidance, or DNR products. In general, the types of proposals considered for the Adaptive Management Program are requests for:

- Research and monitoring of scientific uncertainty and resource risks;
- Policy interpretations and modifications to improve forest practices management and aquatic resource protection; and
- Review of completed technical studies or issue analyses for consideration in the adaptive management program”.

I find no existing commitments or basis exists that directly support this proposal; it will not affect how forest practices are conducted with respect to aquatic resources; and it is not a directive of the Board. However, there is genuine value in summarizing and reflecting upon the

accomplishments of the AMP in reducing scientific uncertainty since the Forests and Fish Report was completed in 1999 and understanding how policy makers perceived the work and how that may have influenced their response. To the extent this project identifies potential improvements to the program from a lessons-learned vantage point, it may result in recommendations that affect guidance or rules on the AMP process. I do not find the proposal to be a strong match with the specific guidance from the Board for new projects, however, it fits well enough with the larger goals of the AMP to warrant further consideration by Policy.

Assessment of Management and Resource Implications

In order to inform TFW Policy and the Board of the applicability and relevance of a PI to the Adaptive Management Program (AMP), the Administrator is to provide a coarse level assessment of management implications using the Framework for Successful Policy Committee/CMER Interaction (eight questions). The eight questions that comprise the framework establish the standard process for assessing a proposal's applicability:

1. Is the proposal intended to inform a key question, resource objective, or performance target from Schedule L-1?

No.

2. Is the proposal intended to implement projects listed in Schedule L-2?

No.

3. Is the proposal intended to inform the forest practices rules, guidance, or DNR product? Is the specific rule, board manual section, DNR product, or effectiveness of compliance monitoring cited and key language provided correctly? If the proposal is for a new forest practices rule, does it fill a gap? If so, would it fit within the current forest practices structure?

The proposal is not related to a new forest practices rule or compliance monitoring. The proponents suggest they may identify potential changes to Board Manual Section 22 which describes the AMP process, but they have not identified a specific portion of that section that would be examined or informed through their study and success in this regard would likely arrive spontaneously.

4. If the proposal includes a completed study, was the study carried out using protocols and standards similar to CMER (i.e., study design, peer review)?

This is a rather atypical proposal for the AMP to consider that is composed of a mixture of science, policy, and social science elements. The proposal envisions a process where the proponents will work with a sub-group of Policy to ensure the products resulting from the work meet their needs. This can be reasonably fit to the Board Manual Policy Track requirement to create a Policy workgroup and charter to guide the work. However, even if this proposal is assigned to the Policy Track it does not fit well into the existing Board recommended process steps which are centered on identifying a specific policy to be addressed. Much of the proposal lacks detail on the methodology and includes work such as participant interviews, and using historic information to characterize stakeholder positions on science issues and results. Part of the proposal, however, is characterizing the results of completed CMER studies, describing how those studies reduced uncertainty, and how they were used in the forest practices and adaptive management programs and why. To the extent which the proponents will use those approved findings of the CMER research and documented Policy action, that portion of the proposal will effectively be based on information developed using complementary protocols. The proposal also includes a literature review on adaptive management.

5. What would/does the study tell us?

If successful, the study will provide a historical accounting of how the AMP research program has advanced scientific understanding, reduced uncertainty associated with resource issues, and contributed to resolving policy issues over the past twenty years. It may additionally help policy makers understand if certain categories of projects have been of greater benefit to AMP. Its' primary benefit may be to pull the historical information into a single summary document where it will be more accessible to policy makers and interested stakeholders. It will additionally summarize the perspectives of participants on the AMP who are currently engaged in the AMP as well as from select past participants.

6. What would/does the study not tell us?

It will not produce new scientific findings on the effectiveness of rules or resource protection guidelines. It will not be able to assess the objective value of the shared perspectives from current and past participants as a basis to recommend changes to the AMP.

7. What is the relationship between this proposal and any other studies that may be planned, underway, or recently completed? Cite the information and provide a coarse assessment of the literature, data, or other scientific information provided and determine whether any of the literature or data has been peer reviewed. Identify whether the literature or data is applicable to Washington State forest practices issues. Factors to consider in answering

this question include, but are not limited to: • Feasibility of obtaining more information (within or outside Adaptive Management Program) to better inform the Policy Committee about resource effects. • Whether other studies reduce uncertainty.

This report will be based in part on research that has already been completed within the AMP. It adds to the body of efforts to try and identify areas of improvement to the AMP including but not limited to the Stillwater report, the LEAN assessment of CMER, the Board committee on AMP improvement, Policy's plans to investigate supplemental recommendations in CMER findings reports, the Center for Peace's work with caucus principals, and the State Auditor's current Performance Audit of the AMP.

8. How much of an incremental gain in understanding would/do the proposal results represent? Explain how the proposal results might affect the current rules, numeric targets, performance targets, or resource objectives.

It seems unlikely the proposal will result in any changes to current rules, performance targets, or resources objectives as the results from the research the proponents are planning to examine have already been through the AMP findings report process.

In addition to the above eight questions, new proposals need to additionally answer: What is the urgency based on scientific uncertainty and resource risk?

The proponents suggest the project is timely because: i) the work relies on interviews and this needs to happen before more of the people historically involved in the program retire or otherwise become unavailable, and ii) AMP participants are expressing dissatisfaction with the program's achievements based on the pace of rule changes rather than based on an understanding of the accomplishments of the program as a whole.

It is difficult to say the project is indeed urgent. Most of the original people engaged in the AMP and negotiating the FFR may already be unavailable and thus any surveys will be affected by who remains and is available to be interviewed and the clarity of their memories around specific project decisions. Efforts such as AMP performance audits will be done or largely done before this project is completed (likely in early 2021), and technical research findings and policy responses to those findings are achieved in durable documents where they remain available long term. However, while not urgent it may be timely in terms of providing an important source of information for participants to reflect on the overall value of the program and could serve as an additional source of ideas to draw from in considering ways to improve both performance and expectations in the AMP.

Assessment of the Proposal's Development Track

For each proposal, the Administrator recommends a proposal development track to the TFW Policy Committee based on the nature of the proposal and amount of information provided.

Science track: The science track evaluates currently available science, collects new information through research and monitoring, and synthesizes the best available information into a technical summary for Policy's consideration. In all cases CMER is responsible for conducting synthesis of research and monitoring information and for producing reports to Policy. Proposals requiring scientific assessment or analysis are to be directed toward the science track.

Policy track: Proposals recommended for Adaptive Management Program development following the policy track are those related to interpretation and implementation of the TFW Agreement or the FFR. Proposals seeking to change or clarify policies or change the way existing science is implemented in the rules are to be directed toward the policy track.

The WDFW proponents recommended their project go down a policy review pathway. As provided, their original proposal included language suggesting they will be interpreting scientific findings (e.g., risk and uncertainties existing before and after the research). Such actions would fall clearly in the realm of science and would necessitate a science review/approval process in CMER. I conveyed this perspective to the proponents during our December 20, 2019 meeting and they assured me they would not be making new scientific findings related to CMER's work. The proponents clarified their intent is to interview policy makers to determine the degree to which *the policy makers believe* that risks and management uncertainties have been addressed by study findings, and have modified the language in their proposal (Appendix A).

As such I am recommending this PI be considered on a policy review track, with the condition being that if the work deviates into creating new conclusions about the science, the process will need to be amended at that future time to incorporate CMER review and approval.

Proposal Moves into Stage Two if Accepted by Policy

If after deliberation Policy accepts the proposal in Stage 1, Stage 2 begins. The end product of Stage 2 is a Board-approved annual CMER work plan and budget from which proposals will be considered for implementation.

Development by Policy Track: For each proposal in the policy track, the Policy Committee will create a workgroup composed of committee participants and caucus staff to develop a charter. The charter will include the following elements:

1. A description of the current policy and a brief description of how it was developed;
2. A description of the benefits of the policy proposal;
3. Actions required to develop the policy proposal;
4. A schedule of dates for workgroup submission of progress reports to Policy;
5. An estimate of the human resources to develop the proposal; and
6. A budget and timeline.

If Policy accepts the proposal, its approved charter will be included in the proposal work plan, and the Policy Committee will forward the charter to the Board for informational purposes.

From this point forward, the Board Manual process is written with the intention that proposed projects will be added to the MPS and CMER work plan, voted on by Policy, presented to the Board for approval at their May meeting. Then implemented. This is the appropriate path should Policy decide not to expedite funding in order to use any surplus funding during this fiscal year.²

If approved for implementation, the TFW Policy Committee plans and implements approved proposals delegated to Policy based on the charter approved for each proposal and guided by the principles of the Adaptive Management Program. Upon completion of a final product as defined by the charter, the Policy Committee workgroup develops a recommendation for the Policy Committee. This should occur within one month of product completion.

² I am evaluating this proposal against the guidelines in the Board Manual for Proposal Initiation and Screening. It is important to acknowledge and distinguish why the AMP allows some short-term end of year projects to move forward without strictly adhering to this process. These exceptions occur and are appropriate when applied to projects that can be completed with unexpected unallocated funds that would otherwise be left unspent. This practice recognizes project delays and expenditures lower than planned are an inevitable part of developing and carrying out complex field projects. It also recognizes this unallocated money can be put constructively to use by completing projects, or portions of projects, that were not planned for during a specific time frame but have been determined to be of value collectively by CMER and Policy. The effect is a secondary process, not envisioned in the Board Manual that moves the AMP forward by investing otherwise unallocated funds for useful short-term projects. The WDFW Proposal does not advance portions of existing prioritized (on the MPS) projects or a project previously agreed to by consensus in the CMER process. It also is not a project that will be completed largely within a fiscal year using unallocated funds, and thus its initiation will affect the research opportunities in the longer-term project planning process.

Appendix A

Assessing Changes in Uncertainty during Adaptive Management: A Case Study of the Washington State Forest Practices Habitat Conservation Plan

Timothy Quinn PhD, Aimee McIntyre, Reed Ojala-Barbour, and George Wilhere

The Problem

Adaptive management is touted as an effective process to improve management of natural resources in the presence of high uncertainty and ecosystem complexity (Holling 1978; Walters 1986). However, to some, adaptive management fails because it produces too few changes to management (Allen and Gunderson 2011). To others, problems originate with a potential disconnect between policy and science (Wilhere and Quinn 2018), where the parties possess different perspectives on scientific uncertainty and ecological risk, as well as the information needed to address those risks.

A number of recent studies (Stankey et al. 2003; Allen and Gunderson 2011; Johnson 2011) have suggested that the strength of adaptive management efforts lies more with the recognition and confrontation of uncertainty than with its use in modifying management. We hypothesize that the adaptive management program (AMP) of the Forest Practices Habitat Conservation Plan (FPHCP) includes many studies that have accomplished their original and primary goals of reducing unacceptable levels of scientific uncertainty, or mitigating risks in the form of new knowledge (Wilhere 2002). Further, we suggest that the AMP has contributed invaluable information to ecosystem-based management of forests throughout the Pacific Northwest. The Forests and Fish Report was completed in 1999 and the 20th anniversary of that report is an opportune time to document adaptive management success stories and help diagnose shortcomings.

A Research Proposal

The authors listed above, many of whom have been involved in the science enterprise of the AMP, created this proposal outline. If this proposal is well received and considered for funding, we will work closely with a subgroup of the Timber, Fish, and Wildlife Policy Committee to ensure the products resulting from the work meets their needs. We envision two major parts of the work.

First through reviews of existing documents and interviews with current and past AMP members, we will examine the history of AMP studies since 1999, document the reasons why each study was funded with respect to scientific and policy uncertainty, and evaluate the degree to which those studies have contributed to resolving policy issues within the FPHCP. This work is composed of four tasks: 1) characterize the history of adaptive management, research, and monitoring of the FPHCP, 2) identify key uncertainties (Schedules L1/L2; CMER work plans, etc.) and expectations for addressing them; 3)

develop a comprehensive accounting of all CMER-funded studies, organized by research approach (i.e., effectiveness monitoring, extensive status and trend monitoring, intensive/validation monitoring and rule tools projects), and identify which key uncertainty(ies) each was intended to address; and 4) the Policy outcome of research efforts (e.g., reduced uncertainty, rule change).

Second, we will assess how a reduction in scientific uncertainty may have affected Policy perceptions of risk, and how new scientific information may have led to the resolution of outstanding management issues without requiring changes to management. The work is composed of three tasks and will rely at least partially on participation from a social scientist to: 5) describe how well Policy members felt that study results addressed key uncertainties (e.g., need for policy change, need for additional study, or (un)satisfactory resolution of scientific uncertainty); 6) policy makers' satisfaction with ultimate policy outcomes based on new knowledge (i.e., were outcomes rationale, fair, transparent, decisive, true to Forests & Fish goals, etc.); and, contingent on the outcome of task 6, 7) an enquiry as to why policy makers were dissatisfied with certain policy outcomes, and how the AMP process could be improved to avoid future dissatisfaction.

The final product will be an historical accounting of the FPHCP AMP that includes critically important adaptive elements that are often underappreciated, i.e., the need to continually characterize uncertainty (science lead with policy support) and the risks of that uncertainty to natural resources management (policy lead with science support) under the FPHCP.

Ancillary proposal information as described in the Board Manual Section 22 (3.1) Stage 1: Initiation and Screening of Proposals. This part of the Board Manual asks how the proposal pertains to or addresses the following five topics.

Topic 1. The affected forest practices rule, guidance, or DNR product.

Our study should lead to improvements of the AMP that might be formalized as changes to *Board Manual Section 22, Guidelines for Adaptive Management Program*. In particular, our study supports the AMP of the FPHCP by offering participants an opportunity to understand important and overarching outcomes of the AMP that to date have not been formally characterized. These outcomes reflect foundational elements and goals of all adaptive management programs (Stankey et al. 2003; Allen and Gunderson 2011; Johnson 2011). Further, this work would also provide opportunities for reflection and learning, which have been identified as critical components for the success of adaptive management as a social-ecological system (Armitage et al. 2009). In particular, we believe that evaluating the degree to which the FPHCP has reduced scientific uncertainty and contributed to resolving policy issues within the FPHCP is fundamental to measuring AMP success and a useful tool to evaluate program functionality.

Topic 2. The urgency based on scientific uncertainty or resource risk

The urgency associated with this study is related to two issues. First, much of the work described here is based on collecting historical information (past 20 years) from written records and from interviews of long-term participant in the program. We need to take advantage of the opportunity to talk with these participants before they retire or become otherwise unavailable. Second, some AMP members have recently expressed dissatisfaction with the AMP, which we believe is based on unmet expectations about the pace of study completion and subsequent rule change. While these metrics can be important, they reflect only one part of successful adaptive management outcomes. Better measures include understanding the program as a whole, that is, how it has addressed uncertainty over its entire history.

Topic 3. Any outstanding TFW, FFR, or Policy Committee agreements supporting the proposal.

We are not aware of any specific agreements but this study may help inform the Biennial Fiscal and Performance Audit.

Topic 4. How the results of the proposal could address AMP key questions and resource objectives or other rule, guidance, or DNR products

The proposed research could affect the guidance provided by *Board Manual Section 22, Guidelines for Adaptive Management Program*. If we find that some policy makers were dissatisfied with ultimate policy outcomes, or if we find that some policy makers believe that certain past outcomes were not rationale, fair, transparent, decisive, or true to Forests and Fish goals, etc., then obvious questions arise. We would ask these policy makers why they hold those beliefs, and what could be done to improve the decision making process within the AMP.

Further, we believe that we can provide a more complete assessment of the value of the AMP science enterprise than can be measured by considering simple metrics such as the number of studies resulting in rule change, the average cost per study, or average time required to complete a study.

Topic 5. Available literature, data, and other information supporting the proposal.

Collectively, we are familiar with a fair amount of the literature regarding adaptive management, we have authored papers on adaptive management (Wilhere 2002, Wilhere and Quinn 2018), and have extensive experience with the FPHCP (Quinn) and AMP (Quinn, McIntyre).

If funded, we will complete a formal literature review. We also plan to contract the services of a social scientist to assist in the design and execution of the participant surveys.

Draft Budget for 2019-2021. This budget may be revised in cooperation with a policy subgroup input.

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Study Component	Duration (FTE months)	Scientists (Salary and Benefits)	Estimated Indirect	CMER Contribution	Inkind Contribution (Salary and Benefits)	Grand total
Task 1	1.5	\$13,686	\$4,146	\$17,832	\$4,458	\$22,290
Task 2	3.0	\$27,373	\$8,219	\$35,592	\$8,898	\$44,490
Task 3	3.0	\$27,373	\$8,219	\$35,592	\$8,898	\$44,490
Task 4	3.0	\$27,373	\$8,219	\$35,592	\$8,898	\$44,490
Task 5-6	3.0	\$27,373	\$8,219	\$35,592	\$8,898	\$44,490
Task 7	3.0	\$27,373	\$8,219	\$35,592	\$8,898	\$44,490
Totals	16.5	\$150,551	\$45,241	\$195,792	\$48,948	\$244,740

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