**DEPARTMENT OF NATURAL RESOURCES**

**OFFICE OF THE COMMISIONER OF PUBLIC LANDS**
1111 WASHINGTON STREET SE
OLYMPIA WA 98504

**360-902-1000**
WWW.DNR.WA.GOV

# MEMORANDUM

**April 24, 2024**

**TO:** Cooperative Monitoring, Evaluation, and Research Committee (CMER)

**FROM:** Lori Clark, Adaptive Management Program Administrator (AMPA)
lori.clark@dnr.wa.gov | 360-819-3712

**SUBJECT:** Outside Science/ Non-CMER Science Guidance Dispute Resolution

The State Auditor's Office (SAO) completed a Performance Audit[1] of the Forest Practices Adaptive Management Program (AMP) in January 2021. In response to the SAO audit, the Forest Practices Board (Board) approved an implementation plan for 11 of the AMP recommendations to support improving program performance and becoming more effective in decision-making. Two of the recommendations involved implementing decision making to help caucuses see a "win" from compromising on a project package[2] and developing a decision criterion up front to eliminate indecision by having participants agree to what results mean. TFW Policy recommended, and the Board approved 5 net gains approaches to address SAO Recommendation 5, including Net Gains Option 2[2]: Clarify Process for Outside Science.

The term "outside science" is used synonymously with non-CMER science and refers to completed scientific work that is/was generated outside of the CMER process. The CMER process was established to ensure that standards and protocols are met to protect scientific rigor and administrative accountability in advancing the science needed to support the Forest Practices AMP. Science that occurs outside of this process may be valuable in enriching the body of knowledge available to inform decision-making within the AMP. Outside science encompasses a broad spectrum of research conducted by various entities, including academic institutions, government agencies, and non-profit organizations, among others. This research could represent emerging science and/or diverse perspectives, methodologies, and findings that could enhance the scientific understanding underpinning forest management practices. While the CMER process serves as a robust framework and collaborative process for ensuring scientific integrity and accountability within the AMP, incorporating external scientific work offers the opportunity to broaden the evidence base and promote continuous improvement in forest management strategies.

TFW Policy is currently engaged in clarifying the process for outside science within the AMP Proposal Initiation (PI) process. CMER's responsibility is to work on an objective framework to evaluate completed, outside science critically and consistently, should an inquiry arise or in response to a direction from Policy. Although CMER possesses clear guidelines for incorporating Best Available Science into the AMP, comprehensive procedural directives for utilizing external scientific research conducted outside the AMP, and endorsing their findings for Policy decision-making, are currently absent from CMER's Protocols and Standards Manual (PSM)[3]. Thus, CMER is tasked with contemplating the establishment of an objective evaluation process to ascertain the scientific validity and technical reliability of such studies, alongside devising mechanisms for assessing their credibility.

[1] Performance Audit of the Adaptive Management Program

[2] **SAO Recommendation 5**: Implement a "net gains" approach to each proposal, project, and decision that benefits more than one caucus by considering packages of projects instead of individual projects. Five Net Gains Options were approved. Net Gains Option 2 - Clarify Process for Outside Science.

[3] PSM, Section 8.8, Review and Use of non-CMER Project Documents

[4] Guided Decision Making (dispute resolution) process: WAC 222-12- 045(2)(h), Board Manual, Section 22, Part 5, and PSM, Section 3.3.3

The CMER co-chairs initiated the task assigned by the Board by developing a draft memo for evaluating outside science that was largely based on a peer-reviewed process described by Mupepele et al. (2015), "Evaluation Process for incorporation of non-CMER Science into the Forest Practices Adaptive Management Program" to springboard CMER review and discussion. The memo was initially shared at the January 2024 CMER meeting to start a CMER 30-day review to get feedback and begin the collaborative review process outlined in the PSM. Several CMER members did not provide feedback on the memo due to hesitation around the process and a desire for more discussion. At the February 27th CMER meeting, A.J Kroll invoked dispute resolution[4] regarding CMER's inability to reach consensus on continuing to develop guidance for the use of non-CMER science using the 2024 memo, "Evaluation Process for incorporation of non-CMER Science into the Forest Practices Adaptive Management Program":

On March 21st, an informal meeting, as required by CMER guided decision-making process, was held to resolve the dispute. The issue in dispute: CMER's inability to reach consensus on continuing to develop guidance for the use of non-CMER science using the 2024 memo, "Evaluation Process for incorporation of non-CMER Science into the Forest Practices Adaptive Management Program." The AMPA facilitated the meeting. Although there were potential solutions discussed, the informal meeting ended without resolution or a consensus to continue deliberations. Per the PSM, therefore, the disputing parties needed to clearly articulate in position papers their interpretation of the issue and their positions to the AMPA no later than 4pm on Thursday, April 11, 2024 (PSM Section 3.3.4.2).

By the April 11th deadline, the AMPA received 6 position papers that communicated positions on the CMER dispute from Board-approved CMER members: Chris Mendoza, A.J. Kroll, Jenny Knoth, Aimee McIntyre, Welles Bretherton, and Western Washington Tribes. Of the 4 potential dispute categories outlined in the PSM, I have assigned the issue in dispute as a CMER Process issue. The CMER PSM Section 3.3.4.2 states that CMER Process issues include questions or disputes that relate to:

> 1) interpretation of CMER process guidelines (as described in the PSM), including whether ground rules were followed (see PSM, Chapter 3, section 3.3.2), and
> 2) whether comments on a CMER product (scoping document, study plan, charter, study report, comment matrix, etc.) relate to an issue that has already been decided by CMER.

The CMER member who initiated the dispute characterized the dispute as the inability of CMER voting members to work collectively on an assignment from the Board to make progress on the SAO recommendation. Some CMER members share the perspective that the PSM, the Hotvedt et al. (2013) memo, and/or the Proposal Initiation (PI) process suffice for providing clarity on the use of outside science in the AMP. Yet as noted by the SAO, these documents lack sufficient guidance and/or consistency of process for evaluating completed outside science for the purposes of informing Policy or responding to specific Policy/Board questions. PSM, Section 8.8, Review and Use of non-CMER Project Documents, relates to how to evaluate external science as a literature review to inform CMER studies. This is different from bringing in completed, outside science that may be used to inform TFW Policy decisions/recommendations to the Board. The Hotvedt et al. (2013) memo was created to alleviate concerns about how outside science is evaluated in CMER's scoping, study design, implementation, analysis, and report writing. Therefore, this report is also lacking guidance and direction for evaluating completed outside science that was developed outside the AMP process, being brought into the AMP through a PI process, or at the request of TFW Policy. The PI process does suggest that technical proposals that come into the AMP may be completed scientific reports and would require a review by CMER based on assessment of the validity and applicability of the science, whether peer review should be conducted, and a budget and timeline. However, there is no guidance on how this would be accomplished, leading directly to intractable and seemingly unresolvable disputes (e.g.., disputes over small forest landowner science proposals; GIS desktop analysis of Type N basins; smart buffer study, etc.). This indicates that it is important that CMER has a transparent and consistently used process for evaluating proposals that come into the AMP through the PI process.

The position papers reflect a legitimate concern among certain CMER members that establishing a clear process for evaluating outside science may inadvertently provide an avenue for caucuses to introduce completed studies that challenge or replace CMER's own research and reports. However, this apprehension can and should be alleviated through the development of comprehensive guidance from TFW Policy. Failure to address this concern and ensure transparency regarding the types of science beneficial to TFW Policy and the Board undermines the commitments for the AMP to support the Habitat Conservation Plan (HCP) effectively and efficiently. In addition, it has resulted in studies entering the PI process only to later become subject to dispute resolution, imposing significant costs on the program in terms of finances, attention, and resources. Addressing these concerns proactively within a guidance framework is imperative to maintaining the integrity and effectiveness of the AMP evaluation process.

While there are several disparate documents and processes in place within CMER to address the incorporation of outside science into the AMP, there remains a critical need for a cohesive and standardized approach. The current frameworks, such as the PSM, the Hotvedt et al. (2013) memo, and the PI process, provide some guidance but fall short in offering comprehensive direction for evaluating completed outside science. The lack of clear CMER PSM guidance for assessing the validity, applicability, and methodological rigor of external scientific reports poses challenges for ensuring that transparency and consistency are applied in the evaluation process.

The principles of CMER advocate the pursuit of collaborative solutions and the recognition of contributions, even amidst disagreement. These principles are fundamental to advancing the scientific efforts crucial for supporting the Forest Practices Board's AMP, a cornerstone in ensuring the success of the Forest Practices HCP. I advocate for fostering collaborative dialogues within CMER to enhance the current processes outlined in the PSM for evaluating completed outside science. The informal meeting uncovered promising avenues forward, offering viable options to support meaningful contributions to a CMER evaluation process.

As highlighted by the SAO, inconsistencies and gaps in the existing procedures underscore the necessity for a transparent and consistently applied evaluation process. Establishing such a framework would not only enhance the integrity and credibility of CMER's work but also prevent unnecessary disputes over what should/could be accepted as completed, outside science and facilitate informed decision-making within the AMP. TFW Policy is working on clarifying the process for outside science within the AMP PI process, which will provide clearer directives for CMER's role.

After a careful review of the attached position papers, I am characterizing the current CMER dispute on outside science as a CMER Process Dispute. The PSM mandates the AMPA to resolve all Process disputes and, accordingly, I am resolving the dispute with the following: CMER will halt efforts to work on the outside science guidance document until TFW Policy completes its guidance on outside science. Once this clarity is achieved, CMER will reconvene to establish a workgroup aimed at further refining the guidelines delineated in the PSM specific to Policy's guidance. The 2024 memo marks the inception of this dialogue, inviting all CMER members to collaborate in crafting a robust process for the objective evaluation of outside science. This memo satisfies the AMPA's requirement to notify CMER in writing no later than April 25, 2024, and resolves the dispute.

**Attachments:**
Position Paper by Aimee McIntyre, WDFW representative
Position Paper by A.J. Kroll, WFPA representative
Position Paper by Chris Mendoza, Conservation Caucus representative
Position Paper by Jenny Knoth, WFFA representative
Position Paper by Western Washington Tribes
Position Paper by Welles Bretherton

**Outside Science/Non-CMER Science Dispute Position Paper**

Aimee McIntyre, WDFW

11 April 2024

**Background**

In response to the State Auditor's Office (SAO) Performance Audit of the Forest Practices Adaptive Management Program (AMP), the Forest Practices Board (Board) approved an implementation plan for SAO recommendations intended to support improvements in program performance and increases in efficiencies and successful outcomes in decision making. Two of these recommendations involved implementing decision-making processes. Timber Fish and Wildlife (TFW) Policy recommended, and the Board approved, the SAO recommendation to *Clarify the Process for Outside Science*. As one part of fulfilling that recommendation, the AMP Administrator (AMPA) directed CMER to develop "an objective approach to critically evaluate completed *outside science* should Policy make such a request." The AMPA directed the CMER co-chairs to develop a draft approach for CMER review, input, revision, and approval of a process for the evaluation of outside science, where "outside science" refers to research that originated outside the AMP process and without AMP oversight. The specific objective was to "*Develop guidance for review and use of completed outside science including developing review templates separate from the ones used for CMER science but including elements relevant to a Policy question which may include relevance, quality of science, and applicability to Washington forests*." In a memo developed by the CMER co-chairs a process was proposed for the review of "outside science" and presented it to CMER for discussion and input.

**The Dispute**

A dispute was invoked at the February 2024 CMER meeting in response to the failed proposed motion "*to continue the development of guidance for the non-CMER* (i.e., outside) *science using the memo provided to CMER as a framework*." The dispute surrounds CMER's inability to reach consensus on continuing to develop guidance for the use of outside science using the 2024 memo, "*Evaluation Process for incorporation of non-CMER Science into the Forest Practices Adaptive Management Program*."

Several options for potential progress related to the direction provided by the AMPA to develop a method for evaluating outside science were explored and discussed at the first informal dispute meeting on March 21, 2024. Those options are outlined in a March 22, 2024, memo from the AMPA to CMER. However, consensus on a preferred option or path forward was not attained during the first informal dispute meeting.

My interpretation of "the issue" is that CMER cannot agree on the continued development of guidance for outside science. I believe the lack of forward movement is likely to be related to several factors, including 1) the lack of a shared definition of "outside science" in the context of the assignment, 2) perception that a sufficient process exists, 3) the need for, or value of, an objective process for evaluating outside science in the context of the assignment, should the need arise, and 4) details surrounding if/when the use of a process for evaluating outside science would be justified.

**<u>Definition of outside science</u>**:

There appears to be some confusion about what is meant by "outside science" in the context of the assignment and concerns surrounding the fact that CMER does already utilize outside science as Best Available Science (BAS) to inform product development including scoping documents, alternatives

analyses, study designs, statistical analyses, interpretation of study results, and report writing, among other things. Indeed, as scientists we are trained to evaluate the utility of BAS in informing approaches and interpretation and know that part of incorporating BAS in any product includes putting that study and its results within the context of the study or the product that you are developing or the issue you wish to inform. That context may include details about study design, scope (spatial and temporal), statistical power, and inference. My interpretation of outside science in the context of this assignment is that we are talking about something beyond BAS and are preparing for an event that has yet to occur within our program, namely, a request to evaluate a singular piece of completed outside science for its relevance and potential to inform our program.

**Existing processes:**

Some argue that a process for the use of outside science in the AMP already exists and is sufficiently covered in the Protocol and Standards Manual (PSM), the Hotvedt *et al.* (2013) memo, and the Proposal Initiation (PI) process. My position is that our current guidance is insufficient for some requests that *could* come into the AMP.

**Need for an objective process**:

If a request for review of a piece of outside science (within the context of the issue as described above) were to be made, I believe it would be advantageous for the AMP to have a clearly-articulated and consistent process for evaluating the utility/applicability of a piece of science relative to our program in place in advance. We would want this process to be efficient and repeatable, to consider relevance to our program and resource objectives, and to weigh evaluation criteria across multiple reviewers. We would also require a process for concisely and clearly conveying the result of said review to Policy in a way that is informative, meaningful, and useful.

**Details surrounding if/when to use the process**:

I believe this issue needs to be explored and discussed in more detail at both CMER and Policy. I have heard many concerns stated and agree our program will benefit from clarity and guidance surrounding this issue. I also believe some of the stated concerns are exacerbated by the inconsistent understanding of the issue and assignment. Nonetheless, I believe this area still needs further discussion and clarity at both CMER and Policy.

The CMER co-chairs involved in the development of the currently proposed process, which is now in dispute, were following the direction of the AMPA in her authority to direct action in response to the recommendations of the SAO report and the direction of the Board. In response to that direction, the CMER co-chairs proposed *one possible* approach for evaluating outside science that was largely based on a peer-reviewed process described by Mupepele *et al.* (2015). I believe that our program would benefit from the continued consideration/development of a review process for outside science in the context of the assignment and continued discussions (both at CMER and Policy) about when and if the program may be interested in considering outside science to inform the work we do and/or the decisions we make. I believe that with continued input and engagement from CMER members we can develop a process for achieving these goals. As a CMER co-chair and author on the original (now disputed) memo, I had hoped that this kind of input and engagement would be a part of the review and revision process of the document at CMER. I hope that we can continue this discussion to develop a shared definition of outside science in this context, develop a process that everyone can agree on so that it will be available if needed, and work with Policy to define if and when such a process would be valuable.

A.J. Kroll

April 7, 2024

**Position Paper for Outside Science/Non-CMER Science Guidance Dispute Resolution**

BACKGROUND

The Outside Science CMER Guidance Document was included as an agenda item for the February 27, 2024, CMER meeting. At the January 23, 2024, CMER meeting, the AMPA discussed this document, including its motivation and development, with CMER members. Information provided by the AMPA at the January 23rd meeting included the Guidance Document (co-authored by Jenny Knoth, Aimee McIntyre, and A.J. Kroll) and a Memorandum written by the AMPA. The Memorandum explained that the preparation of the Guidance Document by CMER was approved by the Forest Practices Board, based on a recommendation from TFW Policy, to address Net Gains Option 2 from the SAO audit. The AMPA informed CMER members that the review period for the Guidance Document lasted January 16-February 6, 2024. Also, the AMPA stated her intention to include an agenda item at the February 27 meeting to discuss the comments and hold a consensus vote to identify which comments/edits required attention as CMER continued to work collectively on the Guidance Document. At the February 27 CMER meeting, I invoked dispute resolution based on CMER's inability to reach consensus by working collectively on the Guidance Document.

MY POSITION

Although I am a CMER co-chair and a co-author of the Guidance Document, I invoked Dispute Resolution in my role as a Board approved CMER voting member.

The basis of my dispute is the inability of CMER voting members to work collectively on an assignment from the Forest Practices Board, the undermining of management and administrative activities of the AMPA, and a violation of the core values of the AMP. First, I note that only one CMER voting member made edits to the Guidance Document during the

specified review period (none of these comments/edits contributed to the dispute). Second, although several CMER voting members shared their concerns about the "background" of the Guidance Document and the "speed of the process", at the February 27 meeting, none of these concerns were communicated as comments in the Guidance Document or communicated to the AMPA and/or the CMER co-chairs prior to the February 27 meeting (if any comments were made by email, they were not shared with the CMER co-chairs). Third, one CMER voting member "rejected the premise" of the Guidance Document at the February 27 meeting. Specifically, this CMER voting member claimed that no response to the SAO Audit was required and that the Forest Practices Board should instead use a document prepared by CMER members in 2013 to alleviate its concerns about how outside science is evaluated by CMER (and, by extension, to respond to the SAO audit recommendations). In so doing, this CMER voting member undermined core activities of the AMPA, including *#7 Coordinate with the Board to ensure that its guidance and priorities are implemented, and effectively communicate to the Board information and results produced by the AMP, #8 Ensure the scientific integrity of the program and facilitate appropriate scientific peer review*, and *#15 Ensure the WAC, Board Manual, and CMER Protocol and Standards Manual are adhered to by TFW Policy, CMER and the SAGs* (pp. 11-12, PSM, March 26, 2024). Also, by "rejecting the premise" that, through TFW Policy and the AMPA, the Forest Practices Board can direct CMER activity, I think this CMER voting member violated the core value of the AMP as defined in WAC 222-12-045(1):

> … provide science-based recommendations and technical information to assist the Board in determining if and when it is necessary or advisable to adjust rules and guidance for aquatic resources to achieve resource goals and objectives….*The goal of the program is to affect change when it is necessary or advisable to adjust rules and guidance to achieve the goals of the forests and fish report or other goals identified by the Board* (p. 13, PSM, March 26, 2024; italics added).

April 11, 2024

Chris Mendoza, CMER member Conservation Caucus.

Position Paper for CMER Dispute Resolution in Response to CMER co-chair (A.J. Kroll - WFPA, A. McIntyre - WDFW), and J. Knoth (WFFA) memo: Evaluation Process for incorporation of non-CMER Science into the Forest Practices Adaptive Management Program

As a Board-approved CMER member, and participant in CMER's dispute resolution process, I'm submitting a response to the CMER co-chair/ Knoth memo on "outside" science as I do not endorse the majority of their assumptions, interpretations, and recommendations for DNR's Adaptive Management Program's "PI" (Proposal Initiation) process in response to the SAO audit. I appreciate their time and effort in drafting a response to the SAO recommendation (#5), however, I believe many of their recommendations are unnecessary and misguided for several reasons; 1) they cite, but omit the most salient points of the Hotvedt / CMER report on The Use of Non-CMER Science in the Forest Practices Adaptive Management Program (2013), 2) they usurp the responsibility of DNR's Adaptive Management Program Administrator (AMPA) whose job is to process Proposal Initiations (PI) received by the WA Forest Practices Board (DNR Board Manual, Section 22), 3) they duplicate several of CMER's procedural processes already in place for incorporating non-CMER science into the Adaptive Management Program (CMER Protocols and Standards Manual 2023, Hotvedt/CMER report 2013), 4) they potentially supplant the role of ISPR by creating an extra quasi science review step with a simplified scoring and ranking method to screen "outside" non-CMER science, and 5) they reverse the "Lean" Administrator's recommendations to the Forest Practices Board (2012) for reducing "non-value added" CMER review steps by duplicating procedural processes that already exists, thereby recreating inefficiencies in DNR's Adaptive Management Program.

As co-author of the Hotvedt / CMER report on The Use of Non-CMER Science in the Forest Practices Adaptive Management Program (2013) I worked closely with then AMPA Jim Hotvedt writing multiple drafts as a CMER co-chair task at the time, managing CMER's review process, and gaining consensus for approval from all Board approved CMER members. I am intimately familiar with the Hotvedt/CMER report's history including the Board's PI process leading to its creation, the circumstances surrounding the AMP stakeholder that submitted the PI (Weyerhaeuser Co.) to the Board, CMER's response to TFW Policy's request to further clarify and elaborate on the use non-CMER science in the AMP, and the original intent of the Hotvedt / CMER report (2013) in direct response to that request.

The CMER co-chair/ Knoth memo (2024) cites the Hotvedt/CMER report (2013) to TFW Policy and the FP Board on "The use of Non-CMER Science in the Forest Practices Adaptive Management Program" (Hotvedt/ CMER, 2013), however their memo fails to provide proper context related to the use of non-CMER science in the AMP through omission of the report's most salient points. First point, and most critical, is the fact that the CMER/ Hotvedt report (2013) was developed in direct response to a TFW Policy request following an active AMP participant/stakeholder (Weyerhaeuser Co.) submitting privately developed, independent research ("outside" non-CMER science) as a proposal to the FP Board thereby triggering the Board's PI process. In doing so, CMER has essentially already responded to how non-CMER science is used in the AMP as the title clearly demonstrates (Hotvedt/CMER, 2013).

Moreover, the SAO recommendation (#5) speaks directly to **the Board's "PI" process** on "Outside (Non-CMER) Science (PI)", not CMER. Again, even if the SAO recommendation (#5) were solely focused on

CMER's process, which it clearly is not, the Hotvedt/ CMER report (2013) has already documented in detail how CMER uses "outside" non-CMER science in the AMP and has incorporated those details into the most recent version of the CMER Protocols and Standards Manual (Chapter 7, Appendix M, 2023) approved by CMER consensus (CMER meeting notes November, December 2023). Given the Hotvedt/CMER report (2013) was developed in direct response to a TFW Policy dispute over "outside" non-CMER science in the AMP, and TFW Policy followed the Board's PI process initiated by Weyerhaeuser Co., and CMER has already responded TFW Policy's request by incorporating the Hotvedt/CMER report (2013) recommendation into their Protocols and Standards Manual (2023), the majority of the CMER co-chair/ Knoth memo's (2024) recommendations are duplicative and unnecessary, thereby creating inefficiencies in DNR's Adaptive Management Program by reversing prior gains in efficiency resulting from the CMER committee going through the "Lean" process that was directed by the Washington Forest Practices Board (2012).

**The SAO Recommendations**

In direct response to the SAO recommendation, the AMPA summarized remaining tasks related the FP Board and the TFW Policy committee (Memo to TFW Policy from Lori Clark, December 21, 2023). The AMPA's memo contains tables listing a variety of "net gains options" for TFW Policy and the Board to consider. Table 2. Responds to that SAO recommendation #5:

"*Net Gains Option 1 - Adopt Multi-Criteria Decision Making/Structured Decision-Making. A consultant will support TFW Policy and the FPB with SDM and adopting decision criteria beginning January 2024.*"

And,

"*Net Gains Option 2 - Clarify Process for* ***Outside (Non-CMER) Science (PI).*** *Est. due to FPB May 2024.*"

Net Gains Option 1 is clearly focused on TFW Policy and the FP Board, and Net Gains Options 2 regarding Outside Non-CMER Science is unquestionably directed at the "(PI)" Proposal Initiation process this is administered by the FP Board and DNR staff, not CMER. The PI process is outlined in DNR's AMP Board Manual Section 22 adopted by the FP Board. Board Manual Section 22 clearly states that the AMPA servers the primary role in evaluating Proposal Initiations (PI) presented by the public or AMP participants. Board Manual Section 22 states (page M22-8):

"*Proposal Initiation*

*An Adaptive Management proposal can be initiated by:*

- *_The Board, including actions taken in response to public requests; or*
- *_Any Adaptive Management Program participant, through the* ***Administrator*****."**

Any proposals brought by AMP "participants" (including TFW Policy Representatives and their member organizations) must go through the "Administrator" (AMPA), not CMER**.** The AMPA's role in evaluating participant's proposals for TFW Policy consideration and the Board is extensive and provides explicit direction for evaluation including:

"*All proposals from the Board (including public requests) or an Adaptive Management Program participant are submitted to the* ***Administrator*** *who will assure that 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 Adaptive Management Program key questions and resource objectives or other rule, guidance, or DNR product; and*

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

And,

*"Assess Adaptive Management Program applicability*

*The **Administrator** assesses 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 Adaptive Management Program*."

And,

"*Assess management and resource implications*

*The **Administrator** determines a proposal's applicability to the Adaptive Management Program by assessing for management and resource implications based on the Framework for Successful Policy Committee/CMER Interaction (Appendix B). Using this process, the **Administrator** provides a coarse-level estimate of expected end results, including a range of possible results that may be associated with each proposal. This assessment of management implications may cover spatial and temporal scales, landowner costs, agency management costs, programmatic costs and potentially affected programs. The framework provides a standard process for assessing a project over its life in the Adaptive Management Program*."

The AMP Board Manual (Section 22) continues with a long list of additional AMPA responsibilities directly related to the Board's "PI" process called out in the SAO recommendation #5, none of which involve CMER. Based on the AMPA's evaluation of a proponent's proposal, TFW Policy determines (via formal vote) whether to pursue the AMPA's recommendation. *If* the AMPA's recommendation is for the proposal to follow a "science track" as opposed to a "Policy track", and *if* TFW Policy approves the AMPA's recommendation by consensus vote, that is the only phase at which CMER would engage the Board's PI process depending on the specifics of the AMPA's recommendation, and only *if* the Board approves the AMPA's recommendation after support from TFW Policy (DNR board manual Section 22, AMPA Mark Hicks presentation to the FP Board 2020).

There are numerous examples over the past two decades of the Board's PI process working as intended with various AMP participants submitting proposals for Board PI consideration (e.g., WFPA, WDFW, the FP Board). Some AMP participant's proposals to the FP Board have resulted in recommendations for approval from the AMPA after following the Board's BM Section 22 evaluation standards listed above, while others have not. The most recent proposal was initiated by the FP Board who directed DNR staff to evaluate the Anadromous Fish Floor (AFF) validation study through their PI process (AMPA memo to TFW Policy 2023). The AFF PI process resulted in the AMPA making a recommendation to TFW Policy that the

Board's proposal follow the "science track". TFW Policy approved the AMPA's recommendation by consensus and directed CMER to follow the AMPA's recommendations in developing the AFF Validation Study (Policy meeting, DNR SharePoint website 2023) which is currently being conducted by CMER/ISAG.

**"The Use of Non-CMER Science in the Forest Practices Adaptive Management Program" Report.**

The CMER co-chair/Knoth memo (2024) selectively cites "The Use of Non-CMER in the Forest Practices Adaptive Management Program" report (AMPA Hotvedt/ CMER 2013) multiple times, while omiting the report's most salient points; the fact that the Hotvedt / CMER report was developed in direct response to an AMP participant (Weyerhaeuser Co.) submitting "outside" non-CMER, independent research for the Board to consider in their PI process, where it was later rejected by TFW Policy via formal vote making it directly relevant to how CMER considers the use of non-CMER science in the AMP. This key omission in found in the first paragraph of page 1 of the Hodtevd/ CMER report (2013):

"*In February 2010, Weyerhaeuser Company, an Adaptive Management Program (AMP) participant, submitted a formal AMP proposal requesting that a Weyerhaeuser non-peer reviewed, unpublished report "Landslide density and its association with rainfall, forest stand age, and topography, December 2007 storm, Willapa Hills, southwestern Washington" be incorporated into the CMER Adaptive Management process and undergo peer review, even though their study was conducted independent of the AMP's stakeholder-driven process. Their request was based on the belief that their report had to be peer-reviewed before being considered for use in the adaptive management decision-making process. The Weyerhaeuser Company invoked AMP dispute resolution after Policy could not agree to send their report through the AMP's Independent Scientific Peer Review (ISPR) process."*

Weyerhaeuser's Independent landslide study was unexpected and previously unknown to CMER because CMER had been actively conducting an AMP stakeholder-driven study of the same December 2007 storm on the same landscape adhering to the Board's AMP collaborative process, as we do with all CMER studies, outlined in WAC (WAC 222-12-045) and DNR's Board Manual (Section 22) and the CMER Protocols and Standards Manual (2023). Moreover, given that one of WFPA's Board-approved CMER members (Julie Dieu) is co-author of CMER's landslide report (Mass Wasting Landslide Effectiveness Study, aka Postmortem, 2013), most non-landowner affiliated Board-approved CMER and TFW Policy members mistakenly assumed that WFPA's CMER/SAG members were solely working on the December 2007 storm's impacts in SW Washington collaboratively with other non-landowner AMP stakeholders. It wasn't until Weyerhaeuser's proposal to the Board requesting use of the PI process that other AMP stakeholders became aware of their independent landslide study of the same December 2007 storm covering the same landscape, co-authored by Weyerhaeuser's Ted Turner and A.J. Kroll (Turner et al. 2010, Forest Ecology and Management), who were simultaneously serving on UPSAG and CMER, respectively.

Prior to other CMER members being aware of Weyerhaeuser's independent "outside" non-CMER science landslide study, during the CMER review process of the Postmortem report and after ISPR (Independent Scientific Peer Review) approval, WFPA's CMER members (save CMER Postmortem co-author Julie Dieu) and DNR's CMER member filed "minority reports" raising additional concerns and requesting revisions to CMER's Postmortem report (A.J. Kroll, Doug Martin, and Leslie Lingley, respectively). The CMER Postmortem report authors (Greg Stewart, Julie Dieu, Jeff Phillips, Curt Veldhuisen, and Matt O'Conner,

2012) wrote an extensive response as a rebuttal to the minority report author's claims, pointing out the fact that the ISPR panel had already approved CMER's Post Mortem Report after the PM authors (Stewart et al. 2012) had made extensive revisions to the report largely in response to the same CMER members how wrote minority reports (Mass Wasting Effectiveness Monitoring Project: Co-author's response to issues raised in the minority reports, 2013). Ted Turner, then and current UPSAG member, also wrote a critique of CMER's Postmortem report after it had been approved by ISPR, and CMER's Postmortem report authors responded similarly by pointing out that ISPR did not share those concerns, as they did with the minority reports (Post Mortem Review Comments – version 8, T. Turner, 2012).

This background information is critical to understanding how non-CMER science produced independently by AMP participants (in this case Weyerheauser employess serving on both CMER and UPSAG simultaneously as co-authors of AMP participant non-CMER science) can be generated "outside" the Board's stakeholder-driven AMP collaborative process used by TFW Policy and CMER committees. Since non-landowner affiliated, Board approved CMER members were unaware of Weyerhaeuser's Independent landslide study (Turner et al. 2010) and since WFPA's CMER and Policy representatives did not divulge that information until it became public once Weyerhaeuser took their proposal to the Board requesting DNR's PI process, their independent landslide study set up a potential conflict between Weyerhaeuser's CMER/UPSAG members that served a formal role in reviewing, revising and approving CMER's Post Mortem study and Weyerhaeuser's landslide study simultaneously, and between WFPA's CMER member Julie Dieu (Rayonier) who is co-author of CMER's Postmortem study. That conflict is highlighted in the CMER Postmortem study author's response to the minority report author's comments and those of Ted Turner (Stewart et al. 2012, Turner 2012).

After review by CMER and approval by ISPR of the CMER's Postmortem report (Stewart et al. 2013), the Post Mortem report did not gain consensus approval as the minority report author's who were Board-approved CMER members voted it down. However, the TFW Policy dispute over the issue of non-CMER science considered by the AMP had been resolved after Weyerhaeuser had their independent study peer-reviewed and published in the journal Forest Ecology and Management (Turner et al. 2010). This is another salient point that's directly relevant to the use of non-CMER science in the AMP, omitted from the CMER co-chair / Knoth memo (2024) stated on the first page of the Hotvedt / CMER report (2013):

"*While no formal agreement on resolving the dispute has been written, Weyerhaeuser ended up having their independent landslide study peer reviewed for journal publication in Forest Ecology and Management (2010) that was later cited in the CMER Landside Study, so their reasons for invoking dispute resolution were resolved. However, in an attempt to prevent this type of dispute resolution from happening again, Policy did agree to request CMER to develop a process for further defining and potentially including (if relevant) non-CMER science in its research and monitoring program*."

In other words, <u>CMER has already responded to how "outside" non-CMER science is used in the Board's adaptive management program</u> <u>by producing the Hotvedt/ CMER report (2013)</u> in direct response to an AMP participant's proposal via the Board's PI process administered by DNR staff. Again, even if the SAO recommendation #5 were specifically directed at CMER, which it is not, that work has already been completed and approved by CMER consensus (Hotvedt / CMER 2013) and adopted into CMER's Protocols and Standards Manual (Chapter 7, Appendix M, 2023). Therefore, given that it was an AMP participant's (Weyerhaeuser) proposal submitted to the Board, thereby triggering the PI process that directly led to

CMER responding to TFW Policy's request on the use of non-CMER" science in the AMP, there is no further reason for CMER to respond to the SAO recommendation.

Most importantly, as stated above, once Weyerhaeuser published their landslide study in Forest Ecology and Management (Turner et al. 2010), the CMER Postmortem report authors (Stewart et al. 2013) considered their "non-CMER science" report for relevance and incorporated some of the findings into their CMER Postmortem report; as an example, the Weyerhaeuser landslide study (Turner et al. 2010) contained more detailed information on forest stand age in areas where the storm concentrated (that CMER had been told was proprietary), which enabled the CMER Postmortem author's to speak to the relationship between stand age, storm frequency and magnitude, and landslide rates with more confidence (Stewart et al. 2012, Landslide Effectiveness Monitoring Report, V8a). Some of the results from both studies were recently reported to TFW Policy by Dan Miller at their January 2023 meeting as an update on CMER's steep unstable slopes criteria project (Policy meeting minutes, January 2023).

This exemplifies how published outside, non-CMER science is used in the AMP *if relevant* to the findings of the Board's stakeholder driven CMER reports that are collaboratively developed – AMP participants can simply have them published by a journal at which point CMER will consider them for relevance in their reports. The Hotvedt / CMER report (2013) recommends prioritizing the use of relevant journal published reports since they've already been vetted by their respective boards experienced and specializing in a particular discipline of research. The evaluation process and approach detailed in the Hodvedt/ CMER report (2013) would be taken if the Weyerhaeuser landslide study (Turner et al. 2010) had been published by a state or federal agency, university, non-profit, or another timber company. Based on CMER's existing procedural process outlined in their Protocols and Standards Manual (2023), all non-CMER science that is found to be relevant to CMER's ongoing research projects is captured before (e.g. the literature review phase), during (Implementation and report draft phase) and when completing final CMER reports (Discussion section).

One of the many benefits of conducting cooperative research and monitoring projects under the Board's collaborative, stakeholder driven AMP process outlined in WAC (222-12-045) and DNR's board manual (Section 22) is the breadth of experience and familiarity with ongoing non-CMER research offered by the diverse makeup of Board-approved CMER members representing WA Counties, WA State Dept. of Ecology, WA State Dept of Fish and Wildlife, Eastside and Westside Tribal organizations, Small and Industrial size forest landowners, and environmental conservation organizations. Such a diverse group of CMER and SAG members familiar with the literature on forest and aquatic and upslope research being conducted in the PNW working collaboratively together ensures that a steady flow of relevant information is being shared among members reducing the chance that non-CMER research reports relevant to CMER's work will be unaccounted for. In cases where CMER projects may take several years to complete, updated literature reviews may be conducted to capture relevant research that may have been missed (e.g., WetSAG has conducted multiple literature reviews on the impacts of forest harvest on forested wetlands). An additional final screen for relevant non-CMER research is conducted during CMER's Independent Scientific Peer Review (ISPR) process where ISPR reviewers may offer additional non-CMER research relevant to the CMER study they are reviewing.

Again, the only reason the Weyerhaeuser landslide study (Turner et al. 2010) was not captured by CMER in earlier drafts of the Postmortem report (Stewart et al. 2011) is because other non-landowner affiliated CMER/SAG members were unaware research was being conducted simultaneously and independently by

Weyerhauser given that WFPA had already committed one of their Board approved CMER members (Julie Dieu, Rayonier) as co-author of CMER's Landslide Effectiveness Monitoring study, and another Board approved CMER member (A.J. Kroll, Weyerhauser) as an active LWAG / CMER member with both following the Board's collaborative stakeholder driven AMP process with other CMER/SAG members.

During the review and approval process of the CMER Landslide Effectiveness Monitoring Report by CMER and ISPR, the FP Board directed CMER to go through the "Lean" process to improve efficiencies in the Board's Adaptive Management Program (Lean Administrator's Report to the FP Board, Stratigica 2012). One of the main objectives of the Lean Administrator hired by the Board was to eliminate "non-value added work and processes" practiced by CMER in accordance with their protocols and standards manual (Lean Administrator's presentation to CMER, TFW Policy, and the Board 2012). One of several review steps targeted for improvement by the Lean Administrator was the ISPR process.

CMER committee re-review of final study designs and reports **after** ISPR approval, complete with new comments and revisions directed at CMER report authors, was found by the Lean Administrator to be an inefficient, "non-value added" process step that resulted in "circular arguments in CMER". Moreover, reviewing and revising CMER documents a second, and sometimes third time, **after** ISPR had previously reviewed and approved them, threatened the "independence" of the AMP's formal ISPR process because ISPR reviewers had no knowledge of, nor were given the opportunity to review additional CMER revisions after ISPR had given prior approval. This is analogous to granting journal publication authors the ability to alter and revise their research findings *after* associated boards have approved them, and then republish in the same journal without their review and consent. This is important to understanding the comments and communications between the CMER Postmortem report authors and the CMER reviewer minority report authors comments (Mass Wasting Effectiveness Monitoring Project: Co-author's response to issues raised in the minority reports, 2013) and UPSAG member T. Turner (Post Mortem Review Comments – version 8, T. Turner, 2012) as the Post Mortem report has already been approved by ISPR, yet CMER mintority report authors were generating new comments ouside the scope of what ISPR had already approvced. This CMER/SAG member and Post Mortem author (Stewart et al. 2012) reviewer exchange best exemplifies what the Lean Administrator referred to as "circular arguments within CMER", and "non-value added" review steps that jeopardized the independence of ISPR and thereby the credibility of CMER "final" reports.

**The CMER co-chair/ Knoth memo is duplicative of the existing CMER / ISPR process and reverses the Lean Administrator's Recommendations endorsed by the FP Board that Improve AMP Efficiency**

Several of the recommended steps outlined in the CMER co-chair/Knoth memo (2024) for reviewing outside non-CMER science duplicate procedural processes already followed by CMER, endorsed by the Lean Administrator (Stratigica 2012, CMER response to Lean 2015), described in detail in the recently updated and CMER approved Protocols and Standard's Manual (Chapter 7, Appendix M, 2023). The CMER co-chair/Knoth memo inappropriately advocates for decisions that are clearly meant for TFW Policy and the FP Board under the AMP's current process (BM Section 22), and duplicates and potentially supplants the ISPR process.

The CMER co-chair/Knoth memo (2024) cites recommendations made in the Hotvedt/CMER report (2013) on the use of non-CMER science in the AMP:

"*The task of creating guidance for the review and use of non-CMER science in the AMP began in 2013 with a report (Use of Non-CMER Science in the Forest Practices Adaptive Management Program; hereafter 2013 Report) produced by CMER members to address specifics for the use of non-CMER science (defined as science conducted outside of CMER) in the FPAMP. The 2013 Report, approved by CMER in July 2013, reiterates the AMP definition of BAS and provides suggestions for the evaluation of peer reviewed and non-peer reviewed literature for incorporation into the AMP. Also, the 2013 Report provides five recommendations for revising the guidance within the PSM relative to evaluation and inclusion of BAS in CMER's scoping documents, study designs, research implementation, statistical analyses, literature reviews, technical reports, and Findings Reports.*"

For reasons unknown, the CMER co-chairs/Knoth memo (2024) fail to list the details contained within those "five recommendations" they cite nor do they acknowledge that the five recommendations have been addressed and incorporated into the CMER PSM (2022, 2023). The last sentence of the Hotvedt / CMER (2013) citation above that was omitted from their report states:

*"An additional section could be added to Chapter 7. Project Development and Management or another more appropriate location on the general use of "best available science" in CMER documents*.

Their omission from the Hotvedt/ CMER report (2013) states:

"*List of Recommendations in this Report*

*1. Although CMER's Protocols and Standards Manual frequently refers to the use of best available science, few guidelines exist for evaluating or weighing either CMER or non-CMER science for relevance and inclusion in CMER documents, including scoping documents, study designs, literature reviews, technical reports, and Findings Reports. An additional section could be added to Chapter 7. Project Development and Management or another more appropriate location on the general use of "best available science" in CMER documents.*

*2. Review the PSM and revise if necessary to advise that all credible sources (both CMER and non-CMER) and types of scientific information should be used in CMER's research and monitoring program and processes. Gray literature should generally be available to CMER and be used with caution if relevant. Nevertheless, use of gray literature is acceptable if the content can be evaluated for accuracy and credibility, and it is available to CMER and the general public.*

*3. Review the PSM and revise if necessary to advise that references should be selected based on relevance, availability, and quality with preference given to peer-reviewed publications that are widely available and referenced in the area of scientific inquiry of interest. Gray literature should be used with caution but is acceptable if the content can be evaluated for accuracy and credibility, and it is available to CMER and the general public. Internal reports, papers presented at conferences, articles in preparation, and other types of scientific information should be treated as unpublished and assessed for quality (accuracy and credibility). Regardless of source, authors of CMER reports should be able to provide, or direct access to, literature referenced in a study design or report if requested during a CMER review process. It is also recommended that "best available science" be evaluated using a hierarchical process for assessing quality.*

*4. Review the PSM and revise if necessary to advise that syntheses will be primarily used to answer specific, focused questions raised by the Board, Policy, or CMER that are not adequately addressed in*

*CMER technical reports and other documents (e.g., Findings Reports). Further, the TFW Policy Committee and CMER should clarify what constitutes "technical implications/recommendations" in discussion sections of technical reports and Findings Reports, and revise the PSM and Board Manual 22 accordingly. Finally, in syntheses, a systematic literature review approach should be employed using all credible sources (both CMER and non-CMER) and types of scientific information.*

*5. Review and revise if necessary the guidance to authors in the CMER PSM for completing the Discussion section in technical reports to ensure that results are fully interpreted and placed in context with the current state of knowledge and that the discussion includes the applicability of the result findings across the state of Washington. The discussion section, when combined with the additional information found in the Findings Report, is intended to be sufficiently developed so as to preclude the need for a subsequent synthesis if at all possible."*

The first (1) recommendation asks for revising "Chapter 7 of the PSM….". CMER has recently revised and approved a newly updated Chapter 7 that incorporates many of the details from the Hotvedt/CMER report on the use of non-CMER science in the AMP (CMER PSM Chapter 7, Appendix M, 2023). Recommendations 2,3,4, and 5 all start with "Review the PSM and revise if necessary…". CMER devoted a substantial amount of human resources in years 2022 and 2023 reviewing, revising and approving Chapters 1-7 of the PSM as recently as December 2023 (CMER meeting notes, December 2023).

For reasons unknown, the CMER co-chair/Knoth memo (2024) fails to mention the fact that Chapter 7 of the CMER PSM was recently reviewed, revised, and approved by CMER which addresses all five recommendations by incorporating voluminous details taken directly from the report on the use of non-CMER science in the AMP by Hotvedt/ CMER (2013). As outlined above, that was the entire point of the Hotvedt/ CMER (2013) five recommendations; to ensure that the extensive amount of work captured in the details of the Hotvedt/ CMER Report were incorporated into the CMER PSM. The revised CMER PSM also includes an Appendix "M" containing the unedited Hotvedt/ CMER report (20130 for CMER/SAG members to reference in the case guidance is missing in the main text of the PSM.

In lieu of acknowledging how or why the Hotvedt/CMER report's five recommendations have been addressed through incorporation into the CMER PSM, the CMER co-chair/Knoth memo (2024) advocates a method for ranking, using a point scoring system, of non-CMER science. The Hotvedt/CMER report (2013) states that such a scoring system would be very difficult if not impossible to achieve (Page 6):

"*While it would be difficult, if not impossible, to develop a single scoring system for finding or comparing the best available science, CMER could draw on adherence to the scientific process, or even processes that have been recommended or employed in the literature on systematic literature reviews, to fill in some of the details behind the best available science elements listed above*."

The Hotvedt/CMER report (2013) goes on to list several elements of the scientific process and other processes often used in systematic literature reviews, but despite the recommendations above, the CMER co-chair / Knoth memo (2024) promotes a scoring system with four objectives. Their argument for adoption of a scoring system is based on a handful of citations who's authors are likely unfamiliar with DNR's AMP internal, foundational documents related to the structure and function of the AMP as directed by the WA Forest Practices Board: the FP Board's AMP procedural and rulemaking processes, the DNR's adaptive management Board Manual Section 22, the CMER Protocols and Standards Manual (2023), the WA FP Habitat Conservation Plan, and the Board's PI process and circumstances that

triggered that creation of the Hotvedt / CMER report on The Use of Non-CMER Science in the Forest Practices Adaptive Management Program (2013).

The CMER co-chair/Knoth (2024) memo incorrectly presumes that CMER should serve as a form of quasi-independent science review committee of no-CMER science, similar to ISPR, by adopting a ranking and scoring system while simultaneously serving the Board's directive of developing and implementing research studies that test the WA forest practices effects on aquatic resources and uplands covered under the Washington FP HCP. The CMER co-chair/Knoth memo's first objective states:

**"*OBJECTIVE 1***

*Develop guidance for review and use of completed outside science including developing review templates separate from the ones used for CMER science but including elements relevant to a Policy question which may include relevance, quality of science, and applicability to Washington forests"*

Developing separate guidance with separate review templates for "outside" non-CMER science is exactly what the Lean Administrator advised against because it adds little to no value to CMER's current work products and procedural process and would expend limited human resources by creating an additional review step that is unnecessary. Moreover, this objective is already achieved by CMER during several project development phases that review non-CMER science (e.g. literature reviews, scoping, best available science process). "*Elements relevant to Policy questions*" are already addressed in CMER's project charters (approved by TFW Policy), reflected in CMER's prospective answers to six questions (approved by CMER), and again in CMER's preferred alternatives analysis based on the best available science during the final scoping process whereby CMER includes "elements relevant" to TFW Policy and the FP Board (CMER Protocols and Standards Manual 2023). Throughout a proposed science project's scoping phase CMER directly asks Policy if they have any "relevant elements" they'd like to add to expand on a project's objectives through CMER's answers to "critical questions". CMER also asks TFW Policy if project critical questions are still relevant to the AMP, and if not, if they'd like them revised or removed. TFW Policy's input on relevance to the AMP is already accomplished through several detailed procedural steps taken during the development and review of Project Charters, CMER Prospective Answers to Six Questions, Project Summary Sheets, and CMER Workplan updates long before a CMER study is considered for funding by the Board. Again, based on CMER's existing procedural process, and the Hotvedt/ CMER report (2013) recommendations being added to the PSM, creating additional review templates for non-CMER science separate from our existing process is duplicative and unnecessary and therefore, would create a "non-value added" review step reversing the LEAN Administrator's recommendations to the FP Board by reintroducing inefficiencies in AMP.

Objective 1 of the CMER co-chair/Knoth memo (2024) further states that "*The peer review process that evaluates suitability of primary research and literature syntheses for publication is considered the gold standard for quality assurance. However, the process is not infallible and may result in potential biases from unintentional exclusion of information gained from other sources as well as other factors (Smith 2006; Rennie 2016; Tompkins et al. 2017).*

The Hotvedt/CMER report (2013) on the use of non-CMER science in the AMP already addresses this by providing detailed guidance on how to evaluate peer-reviewed science and non-peer reviewed science (e.g., government agency reports, "grey" literature, ongoing university research, etc.) so long as it can be

evaluated for relevance and quality. Hotvedt/CMER (2013) offer the following guidelines that have recently been incorporated in CMER's PSM (Chapter 7, Appendix M, 2023):

"*The following could be used as a starting point for evaluating non-peer reviewed literature, including non-CMER science, for consideration as "best available science" and use in Adaptive Management Program decision-making. While this process is* ***not intended to provide criteria for inclusion or exclusion of literature*** *(Bold for emphasis), it provides a framework for evaluating the appropriate use of prospective non-CMER science."*

*"Relevance to the primary literature review or study question;*

*Adherence to scientific method;*

*Degree to which study is original work (e.g., not literature review, overviews);*

*Prospective or experimental vs. retrospective;*

*Appropriateness of study design to the research question;*

*Degree of bias: in study design, data collection, review of data, analysis, interpretation, and publication;*

*Timing of measurements after an activity occurred;*

*Number of years of follow up;*

*Statistical issues (e.g., adequately powered to detect an effect and adjustments for confounding factors);*

*Quality of reporting*

*Generalizability (e.g., strength of inferences)*

*Level of peer review*

*Publication type/status (e.g., national/international scientific journal, federal and state agency peer-reviewed technical reports (e.g., USDA Forest Service, USGS), proprietary studies, university cooperative extension reports, consultant's reports, and so forth)."*

Note that Hotvedt/CMER (2013) does not intend the list to serve as "criteria for inclusion or exclusion of literature". The CMER co-chair/Knoth memo (2024) uses criteria to include or exclude information through use of a ranked scoring system (Table 1. Critical appraisal tool). Table 1. duplicates many of the elements already listed above in the Hotvedt/CMER report 2013 (recently incorporated into the CMER PSM, 2023), but adds to that list with elements taken from Mupepele et al. 2015 (An evidence assessment tool for ecosystem services and conservation studies). Most of the added questions are duplicative of CMER's existing process detailed in the PSM, however two of these questions are purely TFW Policy and Board tasks and therefore, breach the AMP "firewall" designed to separate Policy influence on CMER's scientific research projects (BM Section 22). Under "Management", line 33 of Table 1. in the CMER co-chair/Knoth memo (2024) states:

"*33 Were side effects and tradeoffs on other non-target species, ecosystem services or stakeholders considered?"*

And, under "Governance (rule if applicable)" line 39 of Table 1.:

*"39 Was the influence of the applied policy instrument (incentive/law) on the society discussed?"*

It is well outside the scope of CMER's Board directed research to consider "side effects and tradeoffs" on "stakeholders". The species targeted under CMER's current research and monitoring projects are those "covered" by the FP HCP. Studying the impacts on "non-targeted" species would need to come to CMER from TFW Policy and Board directive. Considering "tradeoffs" for AMP stakeholders is not for CMER to decide. That type of evaluation is completed by the FP Board through their Cost Benefit Analysis (CBA) and SBEIS (Small Business Economic Impact Statement) during their rule making process. Nor does CMER consider the influence of applied policy on society for similar reasons – it breaches the "firewall" designed to prevent Policy from inappraprietly influencing CMER research, and prevents CMER members from using Policy positions in developing science for use in the AMP as directed by the FP Board.

Both questions (33, 39) are clearly outside the scope of CMER's research and monitoring tasks which are administered by the FP Board through their approval of the CMER Workplan and CMER Master Project schedule also reviewed by TFW Policy. CMER purposely guards against advocating for a scoring system on "governance and rule" when answering the six questions outlined the CMER/Policy Interaction Framework document (DNR board manual, Section 22) once a CMER scientific study has been completed, whereby a Findings Report is delivered to TFW Policy and the FP Board. CMER Guidance for the answers to those six questions state:

"*CMER should not directly state whether or not a rule, guidance, or program procedure should be changed; only the results from using the program component, and where known, the relative merits of other approaches. Deciding whether to make any changes is the purview of Policy or the Forest Practices Board…".*

Additionally, DNR's adaptive management board manual (Section 22) states it is the AMPA's responsibility to facilitate such consideration with TFW Policy and the Board. One of the duties performed by the AMPA, is to "*Facilitate a Policy Committee or Board response to questions of policy interpretation that may arise in the course of CMER scientific work*." CMER cannot usurp the AMPA's responsibly on policy interpretation or implications that arise in the course of developing and completing CMER research and monitoring projects, including and applying to non-CMER science, or that of TFW Policy and the Board by adopting a scoring/ranking system that poses questions that are clearly outside the scope of CMER.

**Limitations in the Application of CMER co-Chair/Knoth memos' Scoring System.**

The CMER co-chair/Knoth memo (2024) advocates for a ranking reviewer table (Table 2. Study assessment score card) that compiles scores from Table 1. (Critical appraisal tool) that lists 40 questions under various categories including the policy-laden questions above (lines 33, 39). Instruction for Table 1. direct the reviewer to "score" each question with a "yes" (one point) or bolded **yes** (2 points) for all 40 questions without asking how or why the reviewer came to their conclusions in answering/ scoring each of the 40 questions. Table 2. "averages" the Table 1 scores by category and List 4 reviewer columns.

Again, Hotvedt/ CMER (2013) do not support using this type of a scoring system because it "*would be difficult, if not impossible, to develop a single scoring system for finding or comparing the best available science*. This type of simplistic scoring system for ranking non-CMER science would also do an unjustified, disservice to the authors of such reports as it provides no reasoning or evidence supporting

how or why a "reviewer" chose their score. Imagine if the University of Washington's ISPR process, contracted by DNR's under the AMP, adopted a similar approach in answering CMER's standard eight questions that we supply when requesting their review of CMER research study designs and final reports. CMER's standard eight questions:

1. "*Are rigorous, transparent and sound research and statistical methods followed?*
2. *Is there sufficient detail in the document to reproduce the study?*
3. *Were data reasonably interpreted?*
4. *Do the stated conclusions logically flow from the results?*
5. *Do the literature citations include the latest applicable information and represent the current state of scientific understanding on this topic?*
6. *Are uncertainties and limitations of the work stated and described adequately?*
7. *Are assumptions stated and described adequately?*
8. *Is the information presented in an accurate, clear, complete, and unbiased manner and in a proper context?"*

ISPR reviewers provide detailed answers to each of CMER's question beyond a simple "no, yes (1pt.), **yes** (2pt.)" ranking for obvious reasons. ISPR reviewers are contracted to craft comprehensive, well-reasoned, constructive critiques of CMER study designs and final reports by providing rationale, and supporting literature if needed, during their review with the goal of improving the scientific rigor of CMER's research products. A simple scoring / ranking system would not accomplish this, nor would it allow for meaningful feedback from CMER report authors. Since the ISPR process is by contract designed to answer similar questions (above), with much more rigor and accountability, why would CMER attempt to duplicate that effort using a less robust, simplified scoring and ranking system for non-CMER science? Again, the Hotvedt/CMER report (2013) already addresses this step by laying out steps for reviewing non-CMER science, now incorporated into the CMER Protocols and Standards Manual (Chapter 7, Appendix M, 2023).

Another problem with adopting the CMER co-chair/Knoth (2024) scoring and ranking system as it would provide a platform for CMER to essentially serve as an additional layer of quasi peer-review for scientific papers that have already been accepted by traditional peer-reviewed journals. The CMER co-chair/Knoth memo (2024) states:

"*The peer review process that evaluates suitability of primary research and literature syntheses for publication is considered the gold standard for quality assurance. However, the process is not infallible and may result in potential biases from unintentional exclusion of information gained from other sources as well as other factors (Smith 2006; Rennie 2016; Tompkins et al. 2017). Deciding what publications and scientific reports to include in critical policy decision making is an issue with cross-disciplinary reach, including assessment of quality and trustworthiness of citizen science (Hunter et al. 2013), evidence-based medicine (Strause and Sackett 1998), and science-based policing policies (McClure et al. 2019)*."

And,

"*The initial framework for assessing the quality of scientific reports prior to inclusion in the AMP indicates a clear reliance on adherence to the scientific method. However, the risk for bias in BAS selection is not addressed specifically.*"

I fail to see the need for creating another layer of review via a scoring and ranking system to address risk of bias in the CMER BAS process as part of scoping. I don't believe I've ever seen this issue raised by ISPR who usually receives scoping documents (includes BAS) when reviewing CMER study designs and whos very job is to identify this in CMER question 8 to ISPR above. This particular project phase was also one Stratigica's Lean Administrator pointed out as having too many unnecessary, non-value added review steps. Without providing a live example of CMER research that has been at risk of bias, it's unclear where such a problem exists in CMER's review of non-CMER science. It is, by DNR contract, the task of ISPR to reveal risks of bias in answering CMER's standard eight questions (above) when ISPR reviews CMER scoping documents, study designs and final reports all of which are supported by lengthy lists of citations and references to non-CMER science. If such a bias existed in CMER's research it would be raised by ISPR, who has yet to raise bias as a concern in approved CMER final reports in the 20 years I've been a Board-approved CMER member.

Morevoer, I fail to see how adopting a very simplified scoring and ranking system advocated by the CMER co-chair/Knoth memo (2024) remedies the concerns for bias they outline above. Particularly given that CMER "reviewers" under their ranking system do not have to provide any reason or evidence supporting their decision for applying a "score" to non-CMER science, including reports that have already been approved by peer-reviewed journals. Arguably, such a simplified scoring system could inject more bias, not less, into the AMP process by reducing and potentially eliminating any level of accountability by CMER reviewers when "scoring and ranking" non-CMER research under such a system. It's also unclear how the authors of previously approved peer-reviewed journal articles would view CMER's use of a simplified scoring and ranking system applied to their research as an additional screen on relevance. I'm guessing not favorably after they have gone through the rigors of peer-review.

To this end, the CMER co-chair/Knoth (2024) scoring and ranking methods could potentially supplant CMER's ISPR process by systematically weeding out non-CMER science, including peer-reviewed journal publications, with little to no reviewer accountability beyond providing simple "yes, no" answers. This is one of the primary reasons the Hotvedt/CMER report (2013) advised against such a scoring system. Excusing for moment the duplication issue, if CMER were to provide a more meaningful review of non-CMER science using the list of questions from Table 1. of the CMER co-chair/Knoth memo (minus the two Policy-laden questions), CMER reviewers would at a minimum need to provide rationale supporting their "score" for each of what would now be 38 questions. Using ISPR reviewers who answer CMER's standard eight questions as an example, that would very quickly translate into producing reems of pages of CMER reviewer comments before being able to fill out Table 2. where 4 reviewers are then needed to average scores by category for every piece of non-CMER research being considered. This is another reason why the Board never intended for CMER to serve or act as if they were a "peer-review" committee as it would quickly eat up limited human resources unnecessarily, and again reverse improvements in efficiencies made by CMER resulting from the Lean Administrator's recommendation to the Board. It would add little value, at high human resource expense, to CMER's existing process to a perceived problem that does not exist. Lastly, their ranking and scoring system side steps CMER's consensus process by using a "talley" of votes for each piece of non-CMER science as the scores are "averaged". Stakeolders with more than one

Board approved CMER member would have greater influence over the ranking outcome (WFPA has 3 CMER members, WFFA 2, NWIFC 2, Eastside Tribes 1, WDFW 1, Ecology 1, Counties 1, Conservation 1)

Objective 2. From the CMER co-chair/Knoth memo states:

**OBJECTIVE 2**

"*Identify if there are conditions or situations that would warrant CMER to initiate the dispute resolution process over completed outside science while also considering the resource implications of disputing completed outside science. BM22 currently states that "as a body, CMER may have to conduct dispute resolution on issues presented by a Scientific Advisory Group or on issues originating in CMER"*

This statement also provides the answer. When BM Section 22 was last updated in response to the Settlement Agreement between DNR, WFPA, and the Conservation Caucus (DNR 2012) avoiding a legal challenge to the FP HCP, the section cited above was purposely not revised to include "outside non-CMER science". The section of BM Section 22 that was revised during this time related to CMER's formal dispute resolution process was expanded in scope only to include mediation and "arbitration", nothing more. As cited above, only issues presented by "Scientific Advisory Groups" or "originating in CMER" go through dispute resolution. Unfortunately, some stakeholders have misinterpreted BM Section 22 lanague to mean that all non-CMER science is subject to dispute resolution simply because it is not specifically stated that non-CMER science cannot be disputed. Using that same logic, one could argue that all "issues" from anywhere inside or outside the AMP could be brought in and formally disputed at the CMER level. I don't believe that was ever the FP Board's intent in adopting BM Section 22 and it was certainly not the intent during Settlement Agreement deliberations. Unfortunately, that misinterpretation by some TFW Policy members has resulted in two formal CMER disputes over "outside" non-CMER science both of which ended in non-consensus majority / minority reports, one going through full arbitration whereby the arbitration panel unanimously agreed that CMER not support or adopt the non-CMER science proposal in dispute (WFPA's Smart Buffer, 2020, 2021).

Objective 3. From the CMER co-chair/Knoth memo states:

*"Identify conditions or situations that would warrant the use of outside science"*

Already addressed above. See Hotvetd/CMER report (2013) now incorporated into CMER's Protocol and Standards Manual (Chapter 7, Appendix M, 2023).

Objective 4. From the CMER co-chair/Knoth memo states:

*"Propose amendments to BM22 for the Board's consideration."*

The Forest Practices Board decides when to revise BM Section 22, not CMER. Technical committees may be formed by DNR staff once the Board decides to revise a BM section, but CMER has no formal role advocating for revisions. Research reports generated by CMER may have implications for updating Board Manual sections (e.g. DFC Model and Manual Report, 2005) outlined in CMER's answers to 6 questions, but they are brought before the Board for attention by the AMPA.

**Summary**

While I appreciate the time and effort put into the CMER co-chairs/ Knoth memo (2024) in response to the SAO recommendation (#5), I maintain that their recommendations are unnecessary and duplicative

of CMER's existing process for using "outside" non-CMER science in the Adaptive Management Program. The report by Hodvedt and CMER (2013) on the Use of Non-CMER Science in the Forest Practices Adaptive Management was the direct result of an AMP participant submitting "non-CMER" independent research to the FP Board for consideration using the Board's PI process. Moreover, since the Hotvedt/CMER report's (2013) recommendations have recently been incorporated in an updated version of CMER's Protocols and Standards Manual as of 2023, no further work is needed by CMER. Any remaining issues related to the SAO recommendation #5 regarding the use of "outside non-CMER science" in the "PI" process are that of the AMPA, the FP Board and the TFW Policy committee, not CMER.

CMER's process for reviewing outside non-CMER science when developing, designing, and implementing AMP research projects was evaluated by Startigica's Lean Administrator at the direction of the FP Board. Stratica found numerous CMER work and process review steps determined to be "non-value added" thereby creating inefficiencies in the Board's Adaptive Management Program (Stratigica 2012). CMER has since corrected for those inefficiencies by revising their Protocols and Standards Manual (2013) and in practice. The CMER co-chair/Knoth memo (2024) proposes adoption of a scoring and ranking system for review of outside non-CMER science that would reverse those gains in efficiency by adding an extra review step that duplicates procedural processes that already exists and therefore, are unnecessary. Moreover, the Hotvedt / CMER report (2013) does not support adoption of a scoring system for non-CMER science stating that it would be "*difficult if not impossible*" to do so and instead advocates for updateding CMER's Protocols and Standards Manaul which has recently been completed for all chapters as of March 2024.

The CMER co-chair/Knoth proposed scoring and ranking of non-CMER science using a simplified points system has the potential to supplant the ISPR process by providing an extra layer of quasi peer-review for screening out non-CMER science with little to no accountability from reviewers. While this may not be their intent, it has the potential for "re-review" of published journal articles using a simplified scoring system that could render information relevant to CMER studies and the AMP unusable before ever reaching the ISPR process. Their scoring and ranking system also displaces CMER's consensus-based process for a talley system of vote counts that gives disproportionate influence over scoring and ranking to Stakeholders having more than one CMER voting member. CMER was not established by the Board to serve as a science "peer-review" committee for "outside" non-CMER science, that is the sole responsibility of DNR's ISPR process administered by the AMPA with the University of Washington.

Finally, based on 20 years of experience as a Board-approved CMER member I have been party to every formal dispute triggered at CMER. I'm relieved to say that over that 20-year period there have only been a handful. However, the Policy dispute triggered over the CMER Landslide Effectiveness Monitoring Report in 2012 that led to the creation of the Hotvedt / CMER report on the use of non-CMER science in the AMP (20130 created much acrimony among CMER members, CMER staff, and SAG members. The details are well documented in the reference materials and summarized above, but I raise this point in hopes that we (CMER) will not repeat those days over disputing how active AMP participant stakeholder Independently derived, non-CMER science is considered for use in the AMP. CMER has already weathered that storm and came out better, I hope. The simple and obvious solution in that case was for the AMP participant Weyerheauser to have their report published, which they did, whereby CMER was then able to cite their non-CMER science where relevant. I hope that other AMP participants see this as a viable path to have independent research considered by CMER for use in the AMP. After the CMER Post

Mortem report was approved by ISPR and the Stratigica Lean Administrator's recommendations were adopted by CMER, the additional CMER reviewer comment and revisions by report authors that were taking place *after* ISPR approval were eliminated from our process for good reason. The removal of that one non-value added process review step that was creating "circular arguments" at CMER and UPSAG, after ISPR had already approved the report, was successful in improving AMP efficiency to the extent that only one dispute has occurred involving ISPR and a CMER report author in twelve years since.

Although CMER review step reductions in response to the Lean process has improved AMP efficiency, there is still the potential for conflicts over CMER's collaborative research and "outside" independent, non-CMER science conducted by AMP participants. As documented in the CMER Post Mortem report and the Weyerhaeuser Independent landslide report, landowner affiliated CMER and UPSAG members had the ability to review both reports simultaneously using information and results from one report to challenge the other, while non-landowner affiliated CMER members were more limited with information solely from CMER's Post Mortem report. Had CMER been made aware of Weyerhaeuser's intent to produce an independent report of the same storm on the same landscape earlier in the Board's collaborativce AMP process, much of that acrimony could have been avoided.

I mention this again not be scrape old wounds, but to raise awareness that the recent RFQQ by WFPA on Extensive Monitoring that the AMPA (Lori Clark) recently delivered to CMER and TFW Policy has the potential to create similar conflicts. The research questions in WFPA's RFQQ were created by RSAG, not Policy as their RFQQ states, who went through several years of revisions and negotiation at the RSAG committee level long before being reviewed and approved by CMER, then delivered to TFW Policy (CMER Extensive Monitoring memos to TFW Policy 2014, 2018, 2019). Moreover, CMER held a workshop for TFW Policy on Extensive Monitoring inviting a diverse group of program experts from across the state including WFPA members (Mark G. - Green Diamond, Claudene - Port Blakely) State Forestlands (Teddy M.), the University of Washington (Monica V.) and CMER (I presented CMER's extensive monitoring programs from the CMER Workplan). All participant presentations were very informative, collaborative, and garnered interest and action by TFW Policy resulting in prioritized program funding from the Board.

As a longstanding Board approved CMER member, I'm concerned that the collaborative nature of the AMP could be in jeopardy once again as WFPA's RFQQ sets up another situation whereby landowner affiliated CMER members will have access to and influence over both CMER and WFPA's extensive monitoring program studies simultaneously, this time using CMER's research and monitoring questions verbatim (i.e., CMER/RSAG members serving as co-author and reviewers of Project Team documents and WFPA's RFQQ Extensive Monitoring Program). Non-landowner affiliated CMER/SAG members will have no opportunity for oversight of a concurrent study that has essentially co-opted CMER's research questions verbatim from the CMER Extensive Monitoring Project Team Charter and the CMER Workplan adopted and approved by the Forest Practices Board. I'm not implying that a timber company, or any other AMP participant, doesn't have the ability to conduct their own Independent extensive monitoring program as demonstrated by Green Diamond and Port Blakely's at CMER's extensive monitoring workshop for TFW Policy. The critical difference is that Green Diamond and Port Blakely's staff (Mark G. and Claudine) are not <u>actively participating in RSAG or CMER</u> nor have they co-opted CMER's Extensive Monitoring questions verbatim from a "live" ongoing CMER project about to enter its most critical project development stages (scoping, best available science, study design) with oversight by CMER, TFW Policy and the Board. I don't believe it was the WA Forest Practices Board's intent to have an AMP participant co-opt CMER's Extensive Monitoring Program to be conducted independent and "outside" of

the AMP process, with no collaborative oversight by AMP participants, when they directed TFW Policy and CMER to prioritize and fund their Extensive Monitoring Program.

Finally, there is little incentive for a CMER/SAG member to work collaboratively with other CMER/ SAG members, particularly in this case after committing years of negotiating and revising Extensive Monitoring question at RSAG / CMER in good faith, knowing that collaborative research products derived from those negotiations could be co-opted at any moment by another active stakeholder for their own personal or private use. Why would an AMP participant negotiate in good faith accommodating revisions from other AMP stakeholders for the same reason? As demonstrated by the process surrounding CMER's Post Mortem study and Weyerhaeuser's independent landslide study, such a system of non-collaboration will very likely further fray relationships at CMER by irresponsibly encouraging more acrimony. As a Board approved CMER member of 20 years, I implore CMER, TFW Policy, the AMPA and the Board to do everything within their means to avoid these types of conflicts as they undermine and defeat the purpose of the Board's AMP collaborative process and the spirit of TFW.

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Olympia, WA
(360) 460 – 2613

Jenny Knoth, Ph.D., CF
Owner and Principal Consultant

PNK Consulting

April 10, 2024

To: Lori Clark, Adaptive Management Program Administrator (AMPA)

Subject: Position Statement regarding the Non-CMER Science Guidance Dispute Resolution

At the forefront of the Timber, Fish, and Wildlife Agreement, that ultimately established the Adaptive Management Program, and CMER's own guiding principles is the commitment of members to be respectful and to "pursue win/win solutions." Expectations of the Adaptive Management Program members are clearly stated throughout the program's operational manuals and guidelines – our agreed upon procedures of engagement. The progress of further clarifying the incorporation of completed, non-CMER generated scientific work has been halted by a single member clearly unwilling to engage in collaborative, solution finding discourse following the initial informal dispute resolution meeting**. It is my position that this dispute clearly represents an egregious process foul.**

In partial response to the State Auditor's Office performance audit findings and recommendations the Forest Practices Board unanimously passed TFW Policy's list of potential net gains options. Option 2 is "Clarify Process for Outside Science." Specifically, the Policy committee would "Request CMER to develop a guidance in the PSM for review and use of completed outside science including developing review templates separate from the ones used for CMER science but including elements that are relevant to a Policy question…"[1] CMER was directed to create a method to evaluate scientific work completed outside the committee's direct oversight and control. While the definition and use of BAS in CMER has been previously communicated, no process for evaluating completed works with stand alone relevance to policy currently exists in the PSM or other AMP guidance documents.

Participants of the Adaptive Management Program hold the scientific integrity of CMER output with high regard. Indeed, one member of Policy recently stated that neither he, nor his caucus, would trust non-CMER science as it applies to forest practices policy decisions. It is this very lack of trust that a systematic method for the evaluation of works completed outside of CMER is necessary. It is, perhaps, not a coincidence that the CMER member refusing to work collaboratively in this process represents that same caucus.

The National Science Foundation has recently adopted the following definition of Scientific Integrity:

> Scientific Integrity is the adherence to professional practices, ethical behavior, and the principles of honesty and objectivity when conducting, managing, using the results of, and communicating about science and scientific activities. Inclusivity, transparency, and protection from inappropriate influence are hallmarks of Scientific Integrity.[2]

[1] Net-gains options for TFW Policy and status of SAO audit recommendations, Saboor Jawad, 10/25/2002. Page 14
[2] NSF Scientific Integrity Policy NSF 24-007 02/12/2024

Olympia, WA
(360) 460 – 2613

Jenny Knoth, Ph.D., CF
Owner and Principal Consultant

The framework for improving quality research presented by Casadevall *et al.* (2016)[3] are echoed by Kretser *et al.* (2019)[4] who provide nine best practices for instilling scientific integrity into the scientific process. Basic, foundational and continued education in robust scientific methods in combination with rigorous and comprehensive evaluation criteria are among these principles. Further, they express that scientific integrity depends on a "set of foundational expectations that all science should be built upon to maintain trust" (Kretser, *et al.* 2019). Taken together, building trust within the AMP requires, at a minimum, adherence to professional practices along with transparency, honesty, and objectivity.

The conversation during the informal dispute resolution meeting highlighted the disparity of experience (perhaps training) between CMER members in terms of evaluating and analyzing scientific reports. The focus quickly moved from editing and tailoring an internationally recognized method for the evaluation of completed research to the question of "why" and a posture of "wait and see." Despite this, some viable options for completing the task were put forward demonstrating that the majority of participants in the dispute sought to find a collaborative solution to achieve this Policy directed task.

I would like to see this exercise to completion; CMER and Policy would benefit from a framework with which to evaluate and discuss environmental research that occurs outside of the constraints of the MPS. The complexity of measuring the efficacy of the forest practices rules and the limitations of CMER research (capacity) requires that the AMP seeks information gained by others conducting relevant research.

Ignoring FPB approved TFW Policy requested work is counter to the mission of CMER. My grievance lies not with lack of consensus but with the lack of collaboration in the spirit of the TFW Agreement.

Sincerely,

Jenny Knoth
Forest Practices Board Approved Voting CMER Member

[3] Casadevall, Arturo, et al. (2016) A Framework for Improving the Quality of Research in the Biological Sciences; American Society for Microbiology 7(4):e01256-16
[4] Kretser, Alison, et al. (2019) Science and Engineering Ethics 25:327-355

It is my view that CMER is in dispute due to the SAO report misrepresenting how CMER currently deals with non-CMER science in the PSM. This lead the CMER co-chairs to develop an entirely new process for evaluating non-CMER science, based on the recommendations of the SAO report. Once the memo was completed by the co-chairs, it was seen by some as a technical document in need for review, which is how it was presented to CMER. Some of us were unsure if there was a need for a new process, or if it we could clarify our current processes in the PSM instead. It is important to understand what the correct problem is and how the SAO report misinterpreted the current processes within the PSM to deal with non-CMER science.

I would argue that it is unclear whether the authors of the SAO report recognized the current processes within the PSM for reviewing non-CMER science unattached to original CMER research. The SAO report states that, "No further clarity exists on what the review entails or if the outside science review would be considered an AMP project. While CMER has developed guidance for best available science, detailed process guidance on using external information is not currently incorporated in CMER's Protocols and Standards Manual." This misses the fact that there is guidance on using a systematic literature review as a stand-alone document in section 7.7.1 of the PSM. This seems to have been developed as a result of the original non-CMER science memo (Hodvedt et al., 2013). Recommendation 4 from Hodvedt et al. (2013) states that the PSM should be reviewed, "and revise if necessary to advise that syntheses will be primarily used to answer specific, focused questions raised by the Board, Policy, or CMER that are not adequately addressed in CMER technical reports and other documents." This process within the PSM provides a systematic pathway for CMER to evaluate non-CMER science, outside of our original research documents, to produce an AMP document.

The SAO report also recommends that, "guidance could be developed with the recognition that not all outside science will lead to, influence or be used in rule changes. Outside science could, however, be effectively used to reduce uncertainty and add to the growing body of knowledge within the program. Management change may result if warranted in certain conditions." RSAG is currently reviewing a literature synthesis on riparian functions. It is my understanding that this will not necessarily lead to a rule change but is instead adding to our knowledge of riparian functions and will hopefully reduce uncertainty in this area of research.

The fact that the SAO report made recommendations to incorporate non-CMER science in ways that currently exist in the PSM leads me to two conclusions: 1) That their recommendations to CMER are based on an incomplete view of the processes within the PSM, and 2) that these processes within the PSM need further consolidation and clarity.

It is my recommendation that CMER form a work group to clarify and/or consolidate the areas within the PSM that deal with non-CMER science. Once that step is accomplished, they could then make a recommendation to CMER about any additional review processes that might benefit the AMP. Once all the review processes are in place, they could also develop pathways to determine where non-CMER documents might be of use. Finally, the work group should clarify and/or develop processes to report on the findings and to place them in context of the AMP (e.g. six-questions documents).

It is my hope that once we frame the problem correctly and compile everyone's values and objectives around this subject, we can then search for alternative processes, some of which would be acceptable to CMER members.

**Western Washington Tribes position on the dispute over the "Evaluation Process for incorporation of non-CMER Science into the Forest Practices Adaptive Management Program" document**

We think CMER was not able to come to consensus on agreeing to a detailed process on using completed science conducted outside of the AMP and/or accepting their findings for Policy decision making primarily because there is a lack of clarity on how that science will be used in the Adaptive Management Program. Additionally, we are concerned that under the current framework for decision making in the AMP if a single caucus can introduce outside science and in so doing promote an agenda that is not in consensus, that will weaken the incentive for consensus-building, which is the core tenet on which adaptive management is based.

CMER historically has focused on setting up research and monitoring programs as assigned by TFW Policy or the Forest Practices Board in a consensus process to define the problems, objectives, questions of interest that its research and monitoring program focuses on. CMER relies on consensus when finalizing how its research and monitoring results are interpreted and how study findings are communicated to TFW Policy. Our primary concerns with the "Evaluation Process for incorporation of non-CMER Science into the Forest Practices Adaptive Management Program" is that (1) the process of producing a "Study Assessment Score Card" sets all those consensus building steps aside, and replaces them with an average score derived from reviewers assessments,[1] and (2) it is not clear at all how the information contained within the scoresheet will be used to inform TFW Policy in its decision making processes.

The emphasis of the guidance used to produce the "Evaluation Process for incorporation of non-CMER Science into the Forest Practices Adaptive Management Program" document is on how to best evaluate the reliability of the science being reviewed, which is something CMER should consider every time it looks at or uses any science, internal or external. Maybe producing such a scoresheet as described in the document could be an intermediary step in how CMER reviews outside science but it is not clear how TFW Policy could really use the information from the scoresheet to help make adaptive management decisions. More likely the scoresheet will become yet one more thing for the committee to argue over.

The underlying problem is that TFW Policy struggles in how it uses science to make decisions, including CMER science. Historically, TFW Policy has not done a particularly good job at articulating and communicating what information it really needs from science to make adaptive management decisions. We're writing this position paper the day after the two-day workshop on Structured Decision Making. That workshop clearly articulated how technical information can be used in adaptive management to help make natural resource decision making. Our view is that at the very least CMER should wait until TFW Policy updates the PI process before developing guidance on how to incorporate non-CMER science into the AMP. Even better would be for TFW Policy to develop a clear process, maybe based on the Structured Decision Making framework, to identify (1) what information it really needs to make adaptive management recommendations and (2) how it will use science in its adaptive management decision making, before considering how to add outside science to the mix. Ultimately, a request for any review of outside science should come from a consensus decision by TFW Policy, and not just a request for a

[1] We are also concerned that scoring the worksheet could result in all sorts of mischief, and result in lots of contentious and ultimately non-productive arguments in CMER.

generic review on the reliability of that science. Instead TFW Policy should clearly articulate how specific information in the study or findings should or can be interpreted, maybe in the form of specific questions. We think that once some kind of transparent and reliable framework or process has been set up to incorporate and utilize technical information in decision making at TFW Policy, CMER will have a much greater chance of successfully developing a consensus process for using external information or science in the adaptive management program. While ultimately that process may incorporate some of the elements currently in the “Evaluation Process for incorporation of non-CMER Science into the Forest Practices Adaptive Management Program,” we think it will likely look a lot different than what is currently being proposed.