



Lower Columbia Fish Recovery Board

September 7, 2020

Mr. Larry Carpenter, Chair
Washington Fish and Wildlife Commission
PO Box 43200
Olympia, WA 98504-3200

Dear Mr. Carpenter:

Subject: Comments on Proposed August 1, 2020 Update to Hatchery Policy C-3619

The Lower Columbia Fish Recovery Board (LCFRB) is writing in response to the Fish and Wildlife Commission's (Commission) August 1, 2020 request for comments on the latest version of the Hatchery Policy C-3619 update. The LCFRB provided comprehensive written comments on the policy update on June 9, 2020, as well as via email on July 25, 2020. Many of the concerns raised in our prior comments remain unaddressed. To avoid repetitiveness, we have therefore attached our prior comments to this letter. In addition, we offer the following supplemental comments and recommendations for your consideration, based on our review of the latest policy language.

Commitment to Recovery Plan Implementation. One of the most concerning changes in the proposed policy language is elimination of any direct reference to state and federally approved salmon and steelhead recovery plans. While we appreciate the emphasis in the policy on "conservation" and "recovery" of salmon and steelhead, this version of the policy reflects a departure from the previous and direct policy commitment to aligning hatchery production with state and federally approved recovery plans. Specifically, the original policy C-3619 stated:

*"The intent of hatchery reform is to improve hatchery effectiveness, **ensure compatibility between hatchery production and salmon recovery plans** and rebuilding programs, and support sustainable fisheries" (emphasis added)*

This statement has been eliminated. While there are general references to "regionally accepted policies", "habitat protection and recovery strategies", and "other management plans", there is no direct reference to state and federally approved recovery plans in the body of the proposed policy, or in the Draft Prototype Hatchery and Genetic Management Plan (HGMP) Table of Contents. We view this as a fundamental and critical flaw in the proposed policy.

The Washington Department of Fish & Wildlife (WDFW) has been a key partner in developing and implementing recovery plans statewide, and we believe it is important to reaffirm the agency's commitment to working not just toward "recovery and conservation" in a general sense, but toward achieving the specific goals and objectives outlined in recovery plans. As noted in our previous correspondence, in the Lower Columbia region WDFW has been proactive at implementing hatchery and harvest reform, and worked with the LCFRB to develop and implement the Lower Columbia Conservation and Sustainable Fisheries Plan (2017). Unfortunately, the proposed elimination of any discrete reference to existing recovery plans and

implementation strategies raises questions regarding the Commission's ongoing commitment toward aligning hatchery production with recovery plan goals and objectives, both in the Lower Columbia and statewide. We therefore specifically request that the original language above be reinserted into the proposed policy. We also request that Section 3 (Relationship of Program to Other Management Objectives) of the HGMP Table of Contents be revised to include "3.6, *Relationship to existing state and federally adopted recovery plans, and associated goals, objectives, targets, measures and actions. Explain any proposed deviations from the plan(s)*".

Commitment to Use Best Available Science. This version of the policy continues to abandon any reference to use of the Hatchery Scientific Review Group (HSRG) guidelines. Instead, the policy calls upon development of HGMPs based on "best available and evolving science" as the mechanism by which to achieve the stated policy purposes. To eliminate use of HSRG standards is contrary to WDFW's own science review and conclusions regarding effective management of hatchery programs. While WDFW and the WA Academy of Sciences did recognize that the HSRG guidelines were based on modeled results rather than empirical data, they both clearly confirmed that the HSRG guidelines were useful and needed to be maintained. In fact, WDFW concluded that "The principles of reducing pHOS and increasing pNOB to achieve fitness gains in wild populations are well-founded, and should be fundamental goals in any hatchery reform management action". While use of HSRG guidelines has been eliminated, no other methods for objectively evaluating hatchery programs have been identified for use in HGMPs. It is difficult to understand how hatchery programs would be managed or evaluated if there are no standards set with respect to their impacts on natural populations. Until alternative, science-based guidelines are developed, the use of HSRG standards should not be eliminated. To eliminate their use entirely is contrary to best available science.

In closing, we wish to reiterate the importance of ensuring this policy update provides for a thorough and comprehensive public review process. The notice that the Commission's August 1, 2020 draft policy is open for comment was not widely publicized, and can only be found through searching multiple layers of WDFW's website. A policy change of such statewide importance to salmon recovery should be broadly publicized and announced, including via news releases and on the front page of WDFW's website. We also recommend that before a policy is adopted, WDFW should review the proposed policy update through its State Environmental Policy Act (SEPA) procedures, as a non-project action. That would help to provide the broad public and stakeholder review that we believe this policy change warrants.

Thank you for the opportunity to provide these comments. If you have any questions or would like to discuss them in more detail, please feel free to contact me at (360) 425-1553, or via email at smanlow@lcfwb.gen.wa.us

Sincerely,



Steve Manlow
Executive Director
Lower Columbia Fish Recovery Board

Attachments: June 9, 2020 Comments on Policy C-3619 Update
July 25 Email Comments to Don Mclsaac

cc: Kelly Susewind, Director, WDFW
Washington Fish and Wildlife Commission
Erik Neatherlin, GSRO
Council of Regions



Lower Columbia Fish Recovery Board

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Mr. Larry Carpenter, Chair  
Washington Fish and Wildlife Commission  
PO Box 43200  
Olympia, WA 98504-3200

Dear Mr. Carpenter:

Subject: Fish and Wildlife Commission Recommendations on Hatchery and Fishery Reform Policy C-3619

The Lower Columbia Fish Recovery Board (LCFRB) is writing in response to the Fish and Wildlife Commission's (Commission) recent actions regarding updates to the Hatchery and Fishery Reform Policy C-3619. Hatchery and harvest reform are fundamental elements of the LCFRB's overall salmon steelhead recovery approach in the Lower Columbia region, and the LCFRB has worked closely with Washington Department of Fish and Wildlife (WDFW) to facilitate implementation efforts since adoption of the Lower Columbia Salmon Recovery and Fish & Wildlife subbasin Plan (Recovery Plan) in 2006. We are therefore concerned with the Commission's recent recommendations regarding updates to the above-referenced policy, as well as the lack of opportunity for meaningful and broad public engagement in the Commission's formulation of recommendations. We offer the following for your consideration.

As one of the seven regional recovery organizations in Washington State, the LCFRB is charged by state statute with developing and facilitating implementation of a salmon and steelhead recovery plan for the Lower Columbia region. In that capacity, the LCFRB coordinated the development of State's first recovery plan that was adopted by the National Marine Fisheries Service (NMFS) in 2006, updated in 2010, and integrated into the NMFS Domain recovery plan in 2013. The adopted Lower Columbia Salmon Recovery and Fish & Wildlife Subbasin Plan (Recovery Plan) was developed in a collaborative, transparent and inclusive manner. The Washington Department of Fish & Wildlife (WDFW) was a key partner in developing the recovery plan, and is the lead partner in implementing its hatchery and harvest reform actions.

In the Lower Columbia region, large scale salmon and steelhead hatchery production has been occurring for over a century. For example, from 1913 to 1930, about 320 million Chinook salmon fry were released into the lower Columbia River by Washington State hatcheries alone, and similar numbers were estimated for Oregon and federal hatcheries. Around the time of initial Endangered Species Act (ESA) listings, Lower Columbia hatcheries were producing approximately 50 million salmon and steelhead per year, and approximately two-thirds of that number were tule fall Chinook. Total Lower Columbia production has since been reduced to approximately 41 million salmon and steelhead

(Columbia Basin Partnership, in press). However, salmon and steelhead adult returns are still dominated by production from the region's over 20 hatchery programs. Currently, about 82% of the fish returning to the Lower Columbia region are of hatchery origin.

The LCFRB fully realizes and appreciates the substantive economic and recreational benefits that hatcheries provide to our local communities, and that is well documented in the Recovery Plan. Our mission statement also highlights the importance of recovering salmon and steelhead to "healthy, harvestable levels that will sustain productive sport, commercial, and tribal fisheries". Hatcheries not only support commercial, recreational and Tribal fisheries in the Lower Columbia, they also play a key role in supporting reintroduction and supplementation programs for species such as spring Chinook and chum. The Recovery Plan recognizes that even after viable ESUs of salmon are recovered, hatcheries may continue to be needed to provide fish for fisheries as mitigation for permanent loss of habitat and hydro system mortality.

One of the greatest challenges we collectively face in the Lower Columbia region is maintaining viable fisheries on the path to achieving recovery of natural origin populations. While the "All-H" Recovery Plan recognizes the benefits of hatcheries, it also acknowledges that the historic hatchery production cited above has substantively reduced productivity of natural origin spawners. Hatchery impacts are most pervasive for spring Chinook, fall Chinook, and coho with natural productivity estimated to have been reduced by 40-50% for the majority of the populations. Along with degraded habitat conditions, hydro impacts in the Columbia, Lewis and Cowlitz Rivers, and historic harvest rates of 65%, 70% and over 80% for fall Chinook, spring Chinook and coho (respectively), hatchery production was a significant factor contributing to listing of Lower Columbia salmon and steelhead under the ESA in the late 1990s. However, substantive progress has been made in each area, including reducing hatchery and harvest impacts since the ESA listings - those sectors were the first to be impacted by ESA constraints, and WDFW has been proactive in implementing hatchery and harvest reform. These efforts need to be sustained.

As part of the All-H recovery approach in the LCR, the LCFRB collaborated with the WDFW to develop the Lower Columbia Conservation and Sustainable Fisheries Plan (WDFW & LCFRB, 2017) (CSF Plan). The goal of the CSF Plan is to support efforts to return natural origin salmon and steelhead to healthy and harvestable levels, while sustaining important Tribal, commercial and recreational fisheries. The CSF Plan sets forth specific strategies, actions, and management practices that WDFW will use in operating its Lower Columbia hatcheries and in managing related fisheries. The CSF Plan was adopted by both WDFW and the LCFRB, and represents a strong policy-level commitment by WDFW to address its respective hatchery and harvest implementation actions identified in the NMFS and State approved Recovery Plan. These actions comprise approximately 20% of the Recovery Plan's 365 actions. The principles of reducing the proportion of hatchery origin spawners and increasing the proportion of natural origin broodstock to achieve fitness and productivity gains in wild populations are foundational to CSF Plan management approaches. These principles were recently reaffirmed by WDFW's science review of Policy C-3619 (Anderson, 2020).

Recovery progress has been made with many populations, especially our Lower Columbia steelhead populations. However, significant challenges still remain for many populations, including reducing the number of hatchery fish on the spawning grounds through harvest, weirs, and program size adjustments, and improving population productivity. This is especially the case for tule fall Chinook and coho populations, which also continue to suffer from historic and ongoing habitat degradation that has not been successfully offset through land management improvements and active restoration. It is important to remember, however, that while hatchery, harvest, habitat and other impacts have accrued for over a century, we have only been actively trying to recover ESA-listed salmon and steelhead for several salmon life cycles. Fish population responses to recovery actions can take multiple generations to manifest, which conflicts with the public's expectation of immediate results. That expectation seems to be an important driver in the current impetus to increase hatchery production, despite the poor ocean conditions that appear to be depressing both hatchery and natural origin production across the northwest in recent years.

We have reviewed the Commission's recommended updates to Policy C-3619, as well as the prior suspension of key elements, and are concerned they may represent a pivot away from the overarching conservation and recovery direction of the existing policy, as well WDFW's commitments to implementing the CSF Plan. While we certainly understand the current pressure to increase hatchery production to better align with historic hatchery production levels, we believe it is critically important to ensure Policy C-3619 continues to ensure hatcheries are managed in a manner that continues to support efforts to rebuild ESA-listed salmon and steelhead to healthy and harvestable levels, in context of an "All-H" recovery approach. In light of this, we are providing specific comments and recommendations on the draft policy language in Appendix A.

The LCFRB believes that any changes in policy direction that affects future implementation of the Recovery Plan should be conducted in a manner that provides for thorough, comprehensive and transparent public review. Unfortunately, the Commission's original suspension of Hatchery Scientific Review Group (HSRG) elements of Policy C-3619 on June 15, 2018 was not expected, and did not provide for thorough stakeholder review. Although "possible guidance" was referenced on the agenda, there was no clear indication that the Commission would be considering suspending key policy elements during that meeting. As noted above, the suspended HSRG elements are foundational to WDFW's approach to implementing the hatchery reform actions under the CSF Plan. The Commission's suspension of those elements therefore raises questions regarding the status of WDFW's hatchery reform action implementation in the Lower Columbia region.

Similar to the above situation, the Commission's currently recommended Policy C-3620 update language was adopted on April 10, 2020, and there was little to no opportunity for thorough and meaningful stakeholder review before the Commission took action. The Fish Committee finalized recommended policy language on April 9, it was posted to the website on the morning of the April 10 meeting, and it was approved by the full Commission that same day. Although "Fish Committee Recommendation" was identified on the agenda and prior work plan documents, there was no opportunity for stakeholders to review the Commission's actual recommended language before it was vetted and adopted during the April 10 meeting. Stakeholder participation was limited, likely in part due to Governor Inslee's mandatory Covid 19 shutdown under Proclamation 20-05. Given the importance of hatchery management and reform to multiple stakeholders, including the LCFRB and other recovery organizations, we believe that a comprehensive and thorough public review opportunity is warranted as the both the Policy C-3619 and C-3620 review processes move forward.

We appreciate the opportunity for my staff to engage in the recent hatchery reform workshop with the Commission, Governor's Salmon Recovery Office, WDFW staff and Council of Regions. We also thank you for the opportunity to provide these comments. If you have any questions or would like to discuss them in more detail, please feel free to contact me at (503) 347-6251, or our Executive Director Steve Manlow at (360) 425-1553.

Sincerely,



Todd Olson  
Chairman  
Lower Columbia Fish Recovery Board

cc: Kelly Susewind, Director, WDFW  
Washington Fish and Wildlife Commission  
Steve Manlow, LCFRB  
Erik Neatherlin, GSRO

**APPENDIX A – LCFRB COMMENTS ON FISH AND WILDLIFE COMMISSION POLICY C-3619  
UPDATE LANGUAGE**

The following is a summary of LCFRB comments on the Fish and Wildlife Commission’s April 10, 2020 draft Policy C-3619 update language, in relation to the Lower Columbia Salmon Recovery and Fish & Wildlife Subbasin Plan (Recovery Plan), and the Conservation and Sustainable Fisheries Plan (CSF Plan).

***Purpose (Section B):***

This section expands the purpose of the policy to include providing mitigation for lost production in blocked areas, and sustainable economic and stability to fisheries. This expands the purpose of the policy to more than just hatchery reform actions as originally focused. Given the original focus on recovery, the expansion to include fishery benefits, without prioritization, is concerning. This could lead to hatchery programs being justified solely on the need to support fisheries, with potentially less emphasis on implementation of hatchery reform actions supporting recovery if they reduce fishery benefits. For instance, reducing program size may be a necessary hatchery reform action that may not occur under this updated policy because it would reduce support for fisheries. Including fisheries as a consideration in this policy is a reasonable change, but it should not be given the same priority as hatchery reform to support recovery. This recommended change has the potential to move toward a hatchery management strategy that does not prioritize the conservation and recovery of natural populations as intended with the original policy. We strongly recommend that the original intent be retained, but would support inclusion of the additional factors as supporting considerations in decision-making.

***General Policy Statement (Section D):***

This section calls for including a definition of mitigation for “permanently lost habitat”, as contrasted with “restorable” habitat. We support the concept of advocating for protection and restoration of currently damaged habitat. However, definitions for these terms need to be crafted to promote alignment with recovery plans and associated habitat strategies that already identify restoration priorities. Also, hatchery production for mitigation of “permanently lost habitat” should only be within the context of existing mitigation and program responsibilities and requirements, not as justification for increased production - unless the increase is fully consistent with recovery of natural origin populations.

Rather than advocating for more hatchery production to offset unmitigated impacts from permanently lost or impaired habitat, which can conflict with recovery needs for many populations in the Lower Columbia, we recommend focusing mitigation on substantively improving productivity and capacity of existing habitat in a manner that supports recovery of natural origin populations. This is a more ecologically sustainable, longer term solution that avoids exacerbating the impacts associated with hatchery production increases. Currently, we are only addressing about 14% of documented habitat restoration needs on a statewide basis.

We support the recommendation to include a narrative about achieving Treaty Indian fishery right obligations.

With regard to additional narrative regarding “broader ecological benefits”, it will be important to explicitly acknowledge that hatchery programs can produce both negative and positive ecological effects. The long-term focus and emphasis should be on restoring ecological benefits by returning natural origin salmon and steelhead to healthy and harvestable levels.

This section also includes a recommendation to add language to the policy regarding increasing salmon abundance to achieve “ecological, socio-cultural, legal, and fishery-related purposes”. Depending on how these items are prioritized and incorporated into the policy, this addition has the potential to conflict with hatchery reform actions and approaches identified for implementation in the CSF Plan, and the ability of WDFW to achieve the productivity targets set forth in the Recovery Plan. A key concern regarding incorporation of these additional purposes is how they would be weighed and prioritized relative to hatchery reform actions aimed at

recovery progress. For example, if these additional purposes are given equal priority with conservation and recovery of natural populations, then the updated policy will likely result in a reduction in hatchery reform efforts and increased adverse impacts to natural origin populations. Also, hatchery reform actions can be modeled to some degree to provide objective results. In contrast, the additional purposes can only be measured in very subjective terms, which can be problematic in determining how to best to manage hatchery programs. The WDFW and the Washington Academy of Sciences (WSAS) reviews also identified this challenge. Unless clear priorities are set, under the proposed language, hatchery management could shift toward management approaches used before adoption of Policy C-3619, and before implementation or Recovery Plan reform actions. This could lead to situations where full risk/benefit analyses cannot be completed and the adverse impacts of hatchery programs on natural populations are not fully recognized or addressed. In contrast, if these additional purposes are viewed as additional considerations to be evaluated when managing hatchery programs, and secondary to conservation and recovery needs, they would be less problematic. For example, this could involve first identifying various management options for a given hatchery program that each meet recovery objectives, and then applying the additional considerations to determine which is most appropriate from a broader perspective. Such a process would better align with the results of the WDFW and WSAS science reviews, which recognized the need to include these types of considerations as part of an effective hatchery management strategy.

***Policy Guidelines (Section E):***

This section refers to development of HGMPs in consultation with co-managers, which we assume to refer to Tribes. We believe that acknowledging and supporting the critical role of Tribes as co-managers is a critical addition to the policy.

While there are references to development of HGMPs, there are no references in the recommended policy update to ensuring alignment with state and federally adopted recovery plans, which were developed collaboratively with WDFW. Complying with ESA requirements associated with HGMPs, FHMPs and NOAA established fishery take limits is not the same as proactively working to achieve recovery plan targets. The former is often focused on avoiding “jeopardy” and maximizing harvest and hatchery production within ESA thresholds, whereas the latter is working proactively to recover ESA listed species to healthy and harvest levels, in light of population-specific goals. We encourage the Commission to include policy statements that call for alignment of hatchery plans with the goals, objectives, and threat reduction and productivity improvement targets identified in adopted recovery plans, and consulting with regional recovery organizations during plan development.

As mentioned above, identifying ecological risks of hatchery programs is critical to an effective hatchery management program, so we support the proposed addition of a guideline focusing on addressing them. WDFW and WSAS both identified the variety of ecological impacts that are associated with hatchery programs (i.e. competition, predation, disease, and facility effects). Unfortunately though, both reviews also recognized that there is little empirical data or modeling that is available to quantitatively estimate these impacts. In absence of estimates for these such impacts, we encourage consideration of carry capacity as an additional element to help determine appropriate programs sizes. WDFW and WSAS both identified program size as an essential and critical part of a hatchery management program and stressed that throughout Washington the majority of program sizes are large and likely having adverse ecological impacts. In fact, WDFW concluded that “Program size requires more careful scrutiny and scientific justification because it affects virtually every aspect of hatchery risks”. WDFW further concluded that “reducing program size may be a more important management action than reducing pHOS or increasing pNOB”. Ecological risks for each hatchery program should be evaluated by comparing hatchery production in comparison to the carrying capacity at both the juvenile and adult life stages. This could be implemented by assuming that if the total number of both hatchery and natural origin spawning adults or smolts exceeds the carrying capacity for either life stage, then the hatchery program could likely be having adverse impact on the natural population, which is supported by both WDFW and WSAS. In the Lower Columbia, EDT modeling has been used to estimate current production capacity, as measured by number of spawning adults and smolts, and these estimated capacities could potentially be used to help evaluate program

sizes. Similar information is available for other regions as well. For the Lower Columbia, determining appropriate program size could be further informed by population designations (Primary, Contributing and Stabilizing), as these reflect recovery priority in the Recovery Plan.

The Commission suspended implementation of HSRG standards in June of 2018, and the recommended policy update language in this section would permanently strike reference to those standards. This change will eliminate the use of HSRG standards and guidelines to evaluate and manage WDFW-operated hatchery programs. It is difficult to understand how hatchery programs would be managed or evaluated if there are no standards set with respect to their impacts on natural populations. While WDFW and WSAS did recognize that the HSRG guidelines were based on modeled results rather than empirical data, they both clearly stated that the HSRG guidelines regarding PNI, pHOS and pNOB were useful and needed to be maintained. In fact, WDFW concluded that “The principles of reducing pHOS and increasing pNOB to achieve fitness gains in wild populations are well-founded, and should be fundamental goals in any hatchery reform management action”.

To eliminate use of the HSRG guidance is contrary to WDFW’s own science review and conclusions regarding effective management of hatchery programs in Washington. Additionally, this change is contrary to the results of the WSAS review, the Lower Columbia Recovery Plan, and the CSF Plan. The CSF Plan was intended to be WDFW’s implementation plan for its actions in the Recovery Plan, and by adhering to the HSRG guidelines, WDFW could show that it was achieving the productivity and threat reduction targets set forth in the Recovery Plan. This would no longer be the case if WDFW ceases use of those standards. WDFW would need to develop a new methodology for determining if they are achieving the productivity targets set forth in the Recovery Plan. Based on the conclusions of WDFW and WSAS, managing for HSRG pHOS, PNI and pNOB standards in conjunction with maintaining appropriate program sizes would appear to be strong foundation for an effectively managed hatchery program. WDFW supported this concept in their review, and noted “These data strongly suggest that in addition to pHOS and PNI, an appropriately sized hatchery program is critical for ensuring that fitness in the natural environment is sustained in the integrated hatchery-wild population.” In light of the above, the revisions proposed by the Commission do not appear to align with best available science. Use of the above referenced HSRG standards should be retained.

The watershed-specific action plans identified in the previous policy do not appear to have ever been completed. They may have been completed for some basins within the state, but in the Lower Columbia, the CSF Plan replaced the need for these plans. We therefore request that the existing CSF Plan be used as the foundation for continuing to move forward with hatchery and harvest reform in the Lower Columbia region. However, we recognize the need to adaptively manage and update key elements based on the outcome of the WDFW and WSAS reviews.

We support maintaining both guideline points 5 and 11 from the previous Policy, as proposed. The recommended change to identify the need for operational costs is a positive addition.

Converting to a written annual report is a good step because it will provide an easily accessible record of what was presented to the Commission. The key is to clearly establish what will be included in this report. We suggest that this report needs to show how hatchery programs are being operated in a manner that supports the purposes of this policy, especially the purpose to “...advance the conservation of natural conservation and recovery of natural origin salmon and steelhead (salmon) by promoting and guiding the continuing to implementation of hatchery reform measures”. If use of the HSRG guidelines is abandoned, which as noted we would disagree with, there would still need to be objective metrics that could be used to evaluate short- and long-term impacts and benefits to natural origin populations. To date, no alternative metrics have been brought to the table for consideration.

The proposal to prepare an alternative to guideline #11 has the potential to result in actions that are inconsistent with both the Recovery Plan and CSF Plan. This bullet calls out the need to provide the highest level of genetic and ecological protection for natural populations that are in healthy status and have limited impact from hatchery programs. By omission, we are uncertain whether this means that there would be limited

protection provided to populations that are in less healthy state, or that are more highly impacted by hatchery programs. This prioritization of specific populations is potentially in conflict with the population designations set forth in the Recovery Plan, including its NOAA and WDFW approved “recovery scenario”. There should be some reference to the Recovery Plans in this prioritization of populations. As mentioned earlier, the expectation is that WDFW still needs to achieve their hatchery productivity improvement targets, which are developed to support the broader recovery scenario. This policy should clearly articulate this concept.

All HGMPs should be updated as part of the proposed annual reviews. The process of updating the HGMPs should include a thorough public review to ensure transparency in the process. The reviews, however, should not be just qualitative in nature. We recommend that they include population status updates and hatchery program evaluations to present information regarding the impact, adverse or beneficial, on natural populations. There should be specific metrics provided to show how hatchery production is interacting with natural populations. For listed populations, the evaluation should document WDFW’s progress toward achieving threat reduction and productivity improvement targets established in the Recovery Plan.

***Adaptive Management (Section F):***

Both WDFW and WSAS strongly indicated the need for a complete monitoring strategy. WDFW specifically recommended “crafting a stand-alone monitoring and adaptive management plan for each hatchery program that quantifies both benefits and risks, and explicitly links hatchery performance metrics to potential operational changes”. This bullet needs to be strengthened to call for this monitoring and adaptive management plan as recommended by WDFW. Additionally, this bullet should outline the need for funding of this monitoring and adaptive management plan, as was done in *Section E, bullet 5*. The monitoring strategy should include monitoring at the subbasin scale, as well as broader geographic (e.g., strata) scales. This would better align with WDFW’s identified need to have a program that “considers information aggregated among multiple hatchery programs in a region”. Specifically, WDFW recommended “that a more explicit, quantitative cumulative assessment of all hatchery programs within a geographic region is warranted”. A full description of this monitoring and adaptive management plan should be provided in the HGMP for each hatchery. WDFW noted that HGMPs “provide detailed descriptions of hatchery operations, in most cases, they lack clearly articulated monitoring and evaluation plans for understanding and controlling hatchery risks”. Including the monitoring and adaptive management plan in the HGMPs would provide a permanent record to support implementation of these plans.

Similar to our comments above, we recommend including an element in the Adaptive Management process that calls for engaging with regional recovery organizations. Both WDFW and WSAS highlighted a lack of connection between hatchery program management and habitat capacity and recovery plans. WDFW specifically stated that “directly linking hatchery management to habitat capacity and habitat recovery plans remains a major challenge”. Including a recovery organization engagement process would help address this issue. Additionally, connecting the program size to the carrying capacity would take a large step forward in addressing WDFW’s concern.

***LCFRB Conclusions***

The Recovery Plan acknowledges the need to maintain viable commercial, recreational and Tribal fisheries in the Lower Columbia, and the role of hatcheries in maintaining those fisheries. The Recovery Plan recognizes that:

- Conservation hatchery programs can contribute to recovery through the preservation, reintroduction, and supplementation of naturally-spawning populations;
- Hatcheries can provide harvest opportunities consistent with measures to restore and maintain healthy, harvestable naturally-spawning populations;
- Some hatchery programs have legal obligations to provide fish for mitigation purposes and those obligations will likely be offset to varying degrees by increases in natural production; and,
- Conservation and harvest benefits from hatchery programs can be realized with acceptable risks to naturally-spawning populations through effective integrated or segregated hatchery programs.

The Recovery Plan also acknowledges that achieving these purposes requires that we ensure hatchery and fishery programs avoid and reduce risks to natural original populations, support achievement of region-wide recovery goals, and minimize adverse ecosystem effects and ecological interactions. Development of the CSF Plan was intended to provide clarity on how WDFW will achieve both hatchery production and recovery goals, in a transparent and objective manner that is guided by best available science. We are concerned that the proposed policy update represents a shift away from the recovery focus of the original policy, and are uncertain what this may mean with regard to WDFW's commitment to implement its Recovery Plan actions in the Lower Columbia Region. We are also not seeing clarity on what tools, approaches or standards will be applied to objectively guide and evaluate hatchery management decisions that will affect recovery. We ask that the Commission carefully consider these concerns, and work proactively to address them as this process moves forward.

*Lower Columbia Fish Recovery Board (LCFRB) comments on Draft Policy C-3619 Update Language (version 07-15-20), submitted via email to Don McIsaac on July 25, 2020.*

Don:

Thanks for the opportunity to discuss the latest version of the Hatchery Policy C-3619 document last week. The discussion provided additional context and helped me better understand the intent of proposed changes. I will be discussing the policy update with my Board during our August 7 meeting, and will also be going through it in more detail with my Chairman (cc'd) in the interim. Given the timing of upcoming Commission meetings, and after having reviewed the updated policy language in more detail after our discussion, I wanted to offer some feedback and thoughts as a follow-up. I apologize for the length of these comments, but some warrant a detailed explanation.

- We understand the need to develop a policy that better balances the needs of hatchery production to support fisheries and mitigation, with addressing recovery and conservation needs. The updated policy language clearly articulates the multiple purposes, which in concept aligns with our broader LCFRB mission that also calls for maintaining viable commercial, sport and tribal fisheries on the path to recovery. As discussed, our greatest uncertainty centers on how the multiple purposes will be balanced relative to recovery needs, and whether the policy will support continued progress that we have been observing, as well as address gaps (e.g., high pHOS in certain watersheds). We would like to see assurance that the policy will support continued progress on both implementation and monitoring.
- During our discussion, I reiterated the need to ensure that increased habitat protection and restoration is also fully considered as a viable option for offsetting impacts from permanently lost habitat. This is especially important given that permanently improved habitat productivity or improving access to existing functional habitat can produce more sustainable benefits, from a recovery perspective in particular. However, there is also clearly a role for hatcheries in mitigating for permanently lost habitat, especially given the lag-time in achieving habitat and watershed process benefits, the limited funding that has plagued restoration progress, and ongoing habitat losses. The Lower Columbia Salmon Recovery and Fish & Wildlife Subbasin Plan (2010) ("Recovery Plan") explicitly acknowledges the mitigation role of hatcheries. The policy as written supports both mitigation approaches, and we believe the most efficacious means for achieving mitigation can be worked through existing processes (e.g., FERC, state/federal agreements and programs, biops, etc.) that involve multiple stakeholders. The updated policy provides for this.
- As noted, we support and appreciate the General Policy Statement that identifies the conservation and recovery of depressed wild salmon and steelhead as part of the highest priority policy commitment, as well as managing fisheries to achieve conservation goals for wild stocks. These statements provide a solid foundation for bringing recovery needs identified in adopted recovery plans to the table for consideration.
- The broadening of the purpose statements should be coupled with a call for methods to objectively evaluate policy implementation effectiveness. In our June 6, 2020 letter, we highlighted the importance of clear metrics against which to measure progress and program benefits/impacts. While we appreciate the reservations about using HSRG standards as strict pass/fail thresholds for all management decisions, the hatchery policy science review did

validate the importance of pHOS, PNOB and other HSRG metrics in evaluating programs in a general sense. Appropriate use of such metrics in HGMPs should not be ruled out, and it does not appear the policy would. With the prior references to HSRG standards being removed, however, there is a pressing need to ensure HGMPs include approaches for objectively and consistently evaluating progress. As part of this policy update process, we believe WDFW should clearly articulate alternative methods and metrics that will be brought to the table, and the science review should be relied upon as the basis. We also suggest wording be added to the policy calling for WDFW to “...strive to develop metrics and approaches for objectively evaluating progress toward achieving goals and objectives established in each HGMP”, perhaps under Policy Guideline 4. Absent objective metrics, it is unclear how effectiveness will be measured as called for in the Authority Definition and Intent Section, except in a qualitative sense.

- We support the statements calling for hatchery programs to be implemented as part of an “all-H” strategy. Those statements align well with the “All-H” recovery approach outlined in the Recovery Plan. It is also important to note that about one-quarter to one-third of the over 365 actions in the Lower Columbia Salmon Recovery and Fish & Wildlife Subbasin Plan (2010) (“Recovery Plan”) relate to hatcheries and harvest - recent monitoring under the Conservation and Sustainable Fisheries Plan (CSFP) indicates that most of these actions have already been fully or partially initiated by WDFW and other hatchery managers. We commend WDFW for proactively moving recovery forward in the Lower Columbia region.
- We appreciate the policy statement calling for the highest level of protection from hatchery impacts to those wild populations that have not had substantial genetic modification from past hatchery practices or are now in a healthy condition with little or no same species/run hatchery influence. Such populations to a large degree have already been identified and prioritized through the recovery planning process in the Lower Columbia, and generally consist of “primary” salmon populations that have also been assigned “core” or “legacy” designations by the NOAA Willamette/Lower Columbia Technical Review Team (TRT). Many steelhead populations within “gene banks” and “wild salmonid management zones” may also fit within this category, and are showing the greatest recovery progress in the region. In short, such populations are already given great weight in recovery plans and associated recovery scenarios approved by NOAA. Given the importance and role of such populations to recovery, we encourage WDFW to consult with state’s 7 regional recovery organizations and NOAA as part of this process. The policy should explicitly call for this.
- I want to clarify our perspective on the relationship of agency policies to the recovery plan, as I don’t think we were in alignment on that point. The NOAA-approved [recovery scenario](#) (Section 4.4.3, Table 4-6) is the foundation for the recovery plan. This scenario was developed collaboratively with 82 recovery partner organizations (each with their own policies), and involved extensive public engagement. It is designed to meet the [viability criteria](#) (Section 4.3.1, Box 4-1) established by the TRT, which included WDFW. In addition to improvement targets for VSP parameters, the plan defines impact reduction targets for each potentially-manageable threat category (hydro, habitat, harvest, hatcheries, predation, etc.). The “recovery burden” is equitably allocated among threat categories in proportion to the significance of the threat – the greater the impact, the more work under that H is needed, and vice versa. From a social and political standpoint, this concept was fundamental in keeping recovery partners at the table. The Recovery Plan’s strategies, measures, and actions, which are explicitly associated with

partners with management authority like WDFW, are intended to achieve the needed threat reductions within the framework of adaptive management. The CSFP Plan represents WDFW's commitment to addressing their respective actions etc., and the agency has been working diligently to achieve recovery plan objectives as embodied in the Recovery Plan scenario. It has been a key consideration in how fisheries, hatcheries, and monitoring programs are managed in the Lower Columbia.

While multiple agency policies and programs were certainly incorporated and referenced in development of the Recovery Plan, the expectation was that such policies would be implemented and updated as necessary to ensure threat reduction targets and productivity improvements are achieved across the H's. Adaptively managing strategies and actions based on observed results is obviously a critical part of implementation. However, adjusting the overall recovery scenario and objectives has much broader implications - across all recovery partners in both WA and OR, across all "Hs", as well as across fish populations at the strata scale. Reducing recovery burden on one population means increasing it on one or more other populations, to still achieve VSP parameters and targets. If the Recovery Plan's recovery scenario and overall objectives were updated in response to changes in each of the 82 partner's policies, whether beneficial to recovery or not, the Recovery Plan would obviously have little value. This is why recovery plan goal and scenario updates arising from the adaptive management process must be developed and evaluated by the LCFRB's Implementation Steering Committee in consultation with affected implementing partners, with extensive public participation. Revisions must also be submitted to NMFS and the U.S. Fish and Wildlife Service for concurrence prior to final adoption and issuance. Simply adjusting policies does not warrant reconsideration of the recovery scenario. Updates must be supported by defensible rationale grounded in results of monitoring and adaptive management. Scenario shifts have been made in the past for biological reasons (see [Table 4-6](#)), but it was demonstrated that overall VSP parameters at the strata and ESU scales could still be achieved.

- As you noted, the purpose of the prior policy was very focused on recovery. It actually included a discrete intent statement that called for ensuring "...compatibility between hatchery production and salmon recovery plans...". That language has been removed. The proposed policy language substantively broadens the purpose to better support fishery and mitigation needs, but still maintains references to recovery. In general, we do not have a concern with broadening the purposes. However, there is little clarity on how priorities will be balanced, metrics for measuring progress are lacking, and the policy defers to HGMPs as the mechanism for implementation. This creates some level of uncertainty with regard to how WDFW will operate hatcheries relative to the Recovery Plan priorities. Our comfort level would be substantively increased if the policy included a discrete statement that WDFW, as a key recovery partner, will continue to work proactively toward achieving adopted recovery plan goals, objectives and targets, and will continue to implement their associated recovery plan measures, strategies and actions, within the context of adaptive management.

I hope these comments are helpful in articulating our perspective on the policy. I'd be happy to discuss any of these points in more detail. I would also appreciate it if you could forward these comments to the other Commission members for consideration.

Thanks again for taking the time to discuss the policy update with us.

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