

## ALL PUBLIC COMMENTS

1        5        Beaverton        myself and all people who fish        The mouth of the Deschutes River on the Columbia. Moving the boundariies on the Columbia would be benefical for the people fishing for salmon..        "I would like to suggest moving them closer to the freeway. Keeping the Deschutes closed for steelhead is okay. The Columbia closure for steelhead is fine too. You people must think that the public are stupid. There is no more native runs on the Deschutes. The swteelhead are so interbred with hatchery fish that we will never seen a total native run again. I've caught fish from Idaho as far up as Mack Canyon. Moving the boundaries would be benefical not only to the State, but also to the fisherman. "        2021-03-05 22:23:49

2        8        BEND        635-412-0005 LINE 225 "I would like to emphasize the need to keep the native migratory fish as high a priority as wild anadromous fish. On the Deschutes River the Bend Hydro Project blocks access to well over 100 miles of the Upper Deschutes to fish that currently reside in the Middle Deschutes. Further more approximately 3,000 wild fish per year are pureed in the turbines as they try to migrate downstream. The Upper Deschutes was once one of if not the best trout fishery in the state. Millions are being spent to improve flows and habitat. It makes no sense to deny this barrier a high priority for passage because anadromous fish are not present. The application of the rules should also reflect the importance of resident fish."        "Keep the wording ""native migratory fish"" and make sure the enforcement of the rule reflects the importance of resident wild fish. "        2021-03-11 10:38:30

3        9        BEND        635-412-0005 line 22        "I would like to add the word cumulative to this line. As has happened at the Bend Hydro Project, repairs totaling less than 30% in one event can add up to well over 30% over time. This can lead to major repairs or modifications being made over time which should trigger the need to include fish passage but don't because they are considered one time events. Adding the word cumulative to this definition would prevent the deliberate avoidance of providing passage. As a side note the word cumulative appears in line 27,28,34 but not on 22. "        "I would like to add the word cumulative to this line. As has happened at the Bend Hydro Project, repairs totaling less than 30% in one event can add up to well over 30% over time. This can lead to major repairs or modifications being made over time which should trigger the need to include fish passage but don't because they are considered one time events. Adding the word cumulative to this definition would prevent the deliberate avoidance of providing passage. As a side note the word cumulative appears in line 27,28,34 but not on 22. "        2021-03-11 11:15:14

4        10        Bend        self        "635-412-0005 Fish Passage 19 (9) ""Construction"" means: 22 (A) for dams and diversions, excavation or replacement of 30 percent by structure volume of the dam, including periodic or seasonal replacements, unless: (i) Only checkboards are replaced; or (ii) Fish passage approval has already been obtained in writing from the Department for expected replacement."

"The rule should be amended to lower the percentage threshold and to clarify that construction means over the life of the structure, not just an individual event (specifically, the cumulative modfactions, repairs and upgrades of a dam over time). This will address the problem of the Pacific Power dam in Bend where over the years substantive upgrades and restorations to the dam have been made, but never exceeding the 30% volume threshold that would require fish passage. Related, the Pacific Power dam once had fish passage and was apparently given a temporary waiver by ODFW with the expectation it would be added later. The rule change is necessary to close the loophole a dam owner can use to avoid the expense of adding fish passage. As the rule is currently interpreted, any dam

owner could rebuild their dam over time yet never incur the cost of adding fish passage. This rule change is important in this particular situation as the Pacific Power dam is the only remaining blockage in this reach of the Deschutes River." "19 (9) ""Construction"" means: 22 (A) for dams and diversions, excavation or replacement of 10 percent by structure volume of the dam, or exceeding 10% of the cost to add/replace fish passage to the dam, including periodic or seasonal replacements, unless: (i) Only checkboards are replaced; or (ii) Fish passage approval has already been obtained in writing from the Department for expected replacement within 2 years. 22 (AA) for dams and diversions where older fish passage structures are obsolete, unusable or out of compliance with current guidelines, any modification, excavation or replacement of the dam, unless: (i) Only checkboards are replaced; or (ii) Fish passage approval has been obtained in writing from the Department for expected replacement within 2 years." 2021-03-11 12:28:47

5 11 "Bend, Oregon" " 635-412-0015, lines 221-260" "While anadromous fish are important, restoration of some other aquatic habitats without anadromous species, but with other important species and aquatic communities, is also important. The Newport Avenue Dam, for example, is the only remaining blockage for fish for about 90 miles below Wickiup Dam. Removal of that dilapidated PacificCorp dam, a safety hazard, would provide genetic interchange and access to cool water refugia for fish and other aquatic species. Bull trout and Redband trout were once common at the site. Oregon spotted frog are just upstream. A fish ladder should be rebuilt if the dam is not going to be removed and protective screens installed. The prioritization ranking process should be changed so that mitigation of adverse impacts of a dam such as Newport Avenue Dam would receive a higher priority ranking." Revised the Rule to provide a more robust prioritization process that takes multiple considerations into account. All permitting for dams should require ODFW review and an extensive public involvement process. 2021-03-11 20:38:18

6 12 BEND River in Bend 635-412-0005 line 22 line 109 It has been used by industry to block their responsibility for providing fish passage...it is unenforceable as written Migratory fish can not be changed to favor anadromous over resident fish present or historically present. rule/line 22 will read as follows: All blockages of fish passage will provide to the commission a plan that within a period of five years fish passage will be available. A waiver for good cause can be provided unless fish passage was historically provided in which case no waiver will be granted. General maintenance will be permitted on blockages but won't impact fish passage rules. Migratory resident fish are vitally important for the gene pool of O. Mykiss which depends on resident trout for spawning with anadromous brethren in the global warming of our rivers. Other species such as Bull Trout also used a migratory life style to facilitate different water conditions. The Bend Hydro Project is a prime example of not letting fish move through the system and represents how different the arid East Side of the Cascades from the West side. 2021-03-12 10:08:21

7 13 La Pine The Wild River Owners Association (WROA) "Line 1: ODFW and any relevant state agency shall fully enforce its Fish Passage Rules, especially when native fish species are barred from volitional migration up and down stream. Lines 22/23 should make all maintenance cumulative over time. Once the 30% level is reached owners of barriers should be required to provide and bear the costs of volitional fish passage. The Wild River Owners Association (WROA) represents over 200 homeowners who live on or near the Deschutes River at Pringle Falls just below Wickiup Reservoir. Our development straddles the river just north of Burgess Road in Deschutes County. We are directly affected by Deschutes River fish and wildlife habitat. WROA supports efforts by Trout Unlimited, the

Sierra Club, the Native Fish Society and other groups to require the restoration of fish passage at the PacifiCorp Newport Avenue Bridge Dam on Mirror Pond. Fish passage was provided into the 1960's at which time the fish passage structure was removed without appropriate approval from ODFW. "

"Many species of fish that occupy the Deschutes, including redband and brown trout, steelhead, various salmon species and mountain whitefish, require movement up and down long reaches of streams to maintain healthy populations and genetic diversity. Unrestricted movement allows species to adapt to seasonally changing water conditions such as those caused by irrigation flows and ongoing climate change. An example of what should be prohibited by the rules is the Deschutes River Newport Dam which is the only remaining barrier to fish passage from Big Falls to Wickiup Reservoir. It is a complete barrier to fish movement up and down the river. In recent years all other man-made barriers to fish passage on this reach have been circumvented. Creating a passage here would open up 190 stream miles to fish movement and migration. " Lines 22/23 should make all maintenance cumulative over time. Once the 30% level is reached owners of barriers should be required to provide and bear the costs of volitional fish passage. No rule changes matter if rules are not respected and enforced. 2021-03-12 13:04:32

8 14 "1020 NW Foxwood, Bend OR 97703" "635-412-0005 (9, (a) (b) (A)),..... lines 19-23" "The history of obstructed fish passage at the Mirror Pond dam on the Deschutes River exemplifies the need for revision of applicable administrative rules. The PacifiCorp hydroelectric dam on Mirror Pond in Bend was constructed circa 1910. At that time it included fish passage. Fish passage fell into disrepair and was decommissioned in the 1960s. Jurisdiction over the project and fish passage was returned to the state of Oregon when PacifiCorp obtained exemption from Federal Energy Regulatory Commission (FERC) relicensure in 1995. Subsequently no requirements for fish passage have been imposed by state agencies. Previous arguments that Mirror Pond passage would yield limited benefits were based on passage barriers immediately above and below the dam as well as severally compromised instream flows. These factors are understood to be the reason the obstruction was allowed to persist for years. PacifiCorp concluded that the dam was nearing the end of its lifespan within the last decade, which led to a multiyear process during which divestiture of the dam was proposed. An independent structural analysis also reached the conclusion that the dam was at the end of its lifespan (Gannett, 2014, commissioned by Bend Park and Rec District). PacifiCorp however tabled its interest in divestiture and instead undertook multiple ""emergency"" repairs through 2019. These repairs have essentially replaced the entire upstream facing of the dam from 2007 through 2018, as well as crib ballast replacement in 2019 of 20% of dam volume and sluiceway repair in 2018. Central Oregon stakeholders were very disappointed that restoration fish passage was not incorporated into these projects. Multiple publicly financed projects have resolved passage barriers immediately above and below the dam, and instream flows improved with resultant improvement in the fishery. There is strong community support for restoration of passage at the Mirror Pond dam. Based on current OARs, the Oregon Department of Fish and Wildlife (ODFW) has held the position that the state had no authority to enforce fish passage remedies during these years. This was based first on interpretation of OAR 635-412-0005 (9(b)(A)); the projects had not exceeded 30% of dam volume non-cumulatively, and secondly because the Mirror Pond dam was not ranked in the artificial obstruction priority list categories that call for Commission enforcement action (OAR 635-412-0015). However based on ODFW information obtained by the Freedom of Information Act (FOIA), the repairs cumulatively did exceed the 30% threshold. And notably, the Army Corp of Engineers felt in 2016 that PacifiCorp could anticipate needed work and be permitted as one project, not separate projects - a ""Nationwide 3"" ( Andazola email

10.27.2016 from ODFW FOIA). But the issuance of separate permits by the Department of State Lands (DSL) and the interpretation of the "major construction" 30% volume definition as a non-cumulative threshold provided a loophole that allowed all this work to be done without addressing remedy of the fish passage obstruction. There is another twist to consider when one analyses the 30% rule. It has been stated that the 30% rule was developed with the rationale that repair of that magnitude would provide an opportunity for efficient and economical installation of fish passage at a dam. But consider that when PacifiCorp undertook crib repairs in 2019, Mirror Pond was drained, huge cranes able to span the dam were brought on site to repair 20% of dam volume in addition to completing the steel sheet pile repairs. Was that not an opportunity to efficiently and economically incorporate remedy of fish passage into the replacement work? Another perspective is that the 30% threshold set a precedent that maintenance other than new dam construction could be recognized as a triggering event that calls for remedy of passage obstruction. Conceptually it is easy to see that other work might merit categorization as "major construction" for purposes of this OAR, its "intent". The Mirror Pond dam is a case in point. PacifiCorp as described above undertook restoration of the end of life dam from 2007 through 2019. PacifiCorp has now publicly stated that it intends to maintain the dam for the foreseeable future. If these repairs suffice to resurrect an end of life dam for the foreseeable future, as well as justifying a long-term corporate strategic infrastructure commitment, how can that not be considered "major replacement" construction? It certainly provided opportunities to incorporate restoration of fish passage into the projects. And yet another perspective is germane. In email exchanges between a local private engineer and ODFW from December 2018 through February 2019 (contained in ODFW FOIA responses), the engineer's opinion was that the sheet pile repairs now constituted 100% of the structural integrity of the dam. Yet department response reverted to analyses based on 30% non-cumulative volumes. Clearly volume is not the right metric for assessing repairs of this character. To interpret sheet pile repairs only in term of volumes in essence creates a loophole for sheet pile repairs to avoid fish passage requirements. That could have consequences for many passage obstacles around the state. Greg Apke acknowledged in this exchange that one option was to ask the Department of Justice (DOJ) for a ruling. He also concluded that a rule change in the future was possible. Under current OARs, ODFW was left without jurisdiction for action as these events unfolded. A more detailed exposition of these points is available on request. " 1) Revise the OAR so that passage requirement can be triggered by cumulative major replacement work that reaches thresholds. Rationale: To avoid the unacceptable consequences of the non-cumulative OAR interpretation as currently administered, and exemplified by the Mirror Pond dam history. 2) Revise the OAR to acknowledge that "major replacement" can be defined by percent of dam volume or percent of dam length, or by professional judgment of ODFW" (see below). Rationale: As the Mirror Pond case shows, repairs such as the steel sheet pile methods can effectively replace a dam while only leading to a minor volume percent calculation. For sheet pile repairs, dam length impacted by maintenance is more appropriate than dam volume for quantitation of the work. Other yet to be identified circumstances may arise. 3) Revise the OAR to require every dam maintenance or repair project, whether or not deemed "construction" for purposes of ORS 509.585(4), to require ODFW permitting, such permitting to include evaluation by ODFW as to whether the maintenance work provides an opportunity to remedy passage obstruction. Rationale: Given the discussion at the 03.09.2021 RAC meeting re: OAR revisions vs guideline development, some of this point may be better addressed in guidelines than OARs. And ORS 509.585(4) may already cover this, subject to the modifications suggested for OAR 635-412 -0005 above. But it is not clear that dam work is brought to the attention of ODFW in a sufficiently timely fashion. Also, while it is convenient

administratively to have a simple percentage threshold in the OAR, this oversimplifies how to define a triggering threshold. If the intent of the "major replacement" provision is to recognize that some dam projects provide opportunity to remedy fish passage obstructions, then a single simple percent trigger can be a dysfunctional oversimplification in some circumstances, as exemplified by the Mirror Pond dam history presented above. 4) Possible revised wording - change lines 22&23, or possibly 22 through 25 to "(A) for dams and diversions major replacement includes any maintenance work, including seasonal, periodic or emergency work, which offers an opportunity to incorporate remedy of fish passage obstruction at the dam or diversion undergoing maintenance work. Examples, inclusive but not exclusive, could be sufficient volume replacement or repair of a sufficient length of the dam, as executed cumulatively, to allow for incorporation of the fish passage remedy. Professional judgement by ODFW may allow categorization of a project as major replacement if unique circumstances are identified for the proposed project." It is noted that this change in definition of "construction" has implications for other OARs eg 635-412-0020, lines 261 and following. I do not appreciate any adverse impacts of this definition change on these other OARs. The impact of this nexus in fact is conceptually consistent with the rationale of #(3) above. " 2021-03-12 15:57:03

9 15 Bend Oregon "635-412-0015, lines 221-260" "1) ODFW staff have had questions about the prioritization process as documented in Intradepartmental ODFW emails (obtained by FOIA): One is whether ORS 509.625 should trump OAR 635-412-0015 ( email from K Smith, 4.23.2019) A second question is about the prioritization listing process. In an email by A. Ritchie (4.23.2019) it is noted that at the time these rules were written ODFW had four or five regions for the prioritization OAR. It now has two. This changes greatly the impact of the prioritization listing. One can question whether the priority listing process has become an obstacle, rather than an aid, for resolution of passage obstacles. 2) While RAC rule lines 226-238 list the criteria used for the priority evaluations, I have been unable to find more meaningful details, such as the database used to develop the numerical valuations of the 2019 list update. Clearly the obstacles ranked have a great variety of factors to consider. A question I could not answer is whether the database for ranking for the Mirror Pond dam in Bend was updated to include restoration of passage at the downstream NUI diversion dam. The process could have more utility if transparency is improved. 3) When one reviews the 2019 updated priority list it is apparent that the presence of anadromous fish dominates the ranking process. In fact, I have been told several times that progress on passage at the Mirror Pond dam on the Deschutes River is unlikely given the lack of anadromous fish or an ESA listed native fish. Lack of anadromy or an ESA listed native fish should not diminish the importance of passage at Mirror Pond: i) ESA listed bull trout have been extirpated in the upper Deschutes by anthropogenic factors; passage obstruction was a major factor in their extirpation. ii) The upper Deschutes trout fishery is widely acknowledged to have been one of the premier fisheries in the state. This is of note for native redband trout which are a state listed sensitive species. While much work has been done and more is underway for restoration of that fishery (see our comments submitted for OAR 635-412-0005), ODFW research has documented the genetic compromises created by fish passage obstruction at Mirror Pond (Bohling et al, North American Journal of Fisheries Management © 2019 American Fisheries Society ISSN: 0275-5947 print / 1548-8675 online, with error acknowledgment by the authors in an email of 01.25.2021 in response to my review, available on request). Given the outlook for climate change impacts, connectivity and gene flow between segments of the Deschutes River can reasonably be called critical for sustainability of the native redband population. 4) The 2019 updated priority list ranks passage at Bowman dam on the Crooked River above passage at the Mirror Pond dam in the upper Deschutes basin. The possibility of anadromous fish

almost certainly explains this ranking. But at this time, because of complex multiple factors, passage at Bowman, theoretically a goal for some future date, will not be implemented in the near future. In contrast, passage at Mirror Pond is a problem ripe for solving now. In the case of the upper Deschutes sub basin the priority ranking seems flawed by its failure to include assessment of feasibility of remedies. Isn't it sensible to ask for each obstacle - what are the prospects for remedy of the passage obstacle in the near future? It arguably is an issue for several of the top 10 ranked obstructions in the 2019 priority listing. 5) Language in OAR 635-412-0015 could be read as directing ODFW to limit enforcement efforts to the highest ranked obstacles. But surely the priority list should not prevent execution of the processes laid out in other rules when a fish passage "trigger" has been identified for a specific dam construction or maintenance project. Ambiguity regarding enforcement in 635-412-0015 should be eliminated. " "Revise line 251: delete "department region"; substitute "within each Oregon sub basin" Rationale: to make consistent with line 239. As documented in ODFW email exchanges designation of "regions" has changed from the initial issuance of this OAR. ODFW "regions" are now so large that functionality is lost in the application of this OAR. For the following, I look for wording to be developed by the department. line 238: Following "given site", I would like to see added a feasibility parameter. This would be an estimate of when remedy of obstruction at a specific site might be executed, based on professional judgement of the department and other information as available. For example, one site might be rated ready for implementation work, while another could be rated indefinite pending resolution of identified factors. I would like to see this incorporated into the ranking score, or perhaps listed for each obstacle along with the current numerical ranking. line 240 (or somewhere in this area of the OARs): It would be practical for rankings to be reported separately for obstacles with anadromy and for obstacles without anadromy as separate ranking databases. This would be useful for planning by various stakeholders, funding efforts, public outreach etc. lines 244 and 245: There is a need to strengthen transparency and public participation in the priority ranking process. Clear notification to the public should be executed so that public input is incorporated into commission considerations. Often local stakeholders have knowledge or insights not available for staff based elsewhere in the state. The error in the 2019 Bohling report, cited above, is a prime example of this. To optimize this process, the database and processes used to develop the numerical priority rankings should be made available for public review and comment in a timely manner. This might fall into the guideline category more than the OAR framework. line 260: To convey clarity and eliminate ambiguity, I would like these lines to specify that any passage obstacle which has incurred a triggering event will be pursued for enforcement by the department, independent of other enforcement directives based on the priority list. " 2021-03-12 16:05:22

10 16 Portland "(3) "Artificial obstruction" means any dam, diversion, dike, berm, levee, tide or flood gate, road, culvert or other human-made device placed in the waters of this state that precludes or prevents the migration of native migratory fish." I believe the State's definition of artificial obstructions relative to impairing fish passage is deficient and does not include many other obstructions that prohibit or impair fish passage such as streamflow obstructions, water quality obstructions (e.g., chemical contamination), and hydro-acoustic obstructions from high underwater noise and sound pressures. " "Fish passage and habitat connectivity issues are not limited to physical barriers in stream systems. Often passage is limited or discontinued for native migratory fish by non-physical barriers such as streamflow, water quality/chemical, and hydro-acoustic. Streamflow is a particular issue on the east side of the state where in many basins, water rights and water usage are close to exceeding or exceed a stream's ability to provide the habitat needed for fish to migrate.

Streamflow barriers during warm summer months exacerbates harm to fish by restricting their movement to areas with better habitat quality, often leaving fish susceptible to disease and other issues to survival during an already stressful period for the fish. An important component of this rule change is a reasonable and fair definition of how/when these new artificial obstructions would trigger application of the rule." (3) "Artificial obstruction" means any dam, diversion, dike, berm, levee, tide or flood gate, road, culvert, or other human-made device, placed in the waters of this state that precludes or prevents the migration of native migratory fish. An Artificial obstruction is also defined as human-made barriers to migration that affect the quality of NMF habitat such that passage is prohibited or delayed during NMF migratory periods. These obstructions include streamflow barriers, water quality/chemical barriers, and hydro-acoustic barriers." " 2021-03-16 13:50:40

11 17 Portland Definitions - 635-412-0005 (9)(b); line 21 - Major Replacement "need clarity around how to calculate percentages for purposes of triggering the OARs - AO size should be the whole of the structure, which include the earthen embankments, not just the concrete portion. " "Line 22: "...for dams and diversions, excavation or replacement of 30 percent of embankment or concrete dam by volume, including periodic or seasonal replacements, unless: " 2021-03-22 11:28:16

12 18 Portland 635-412-0005: 9(b)(A) "IF changes are required to address public health and safety needs (needs a larger spillway for example), this should not trigger the OARs. Otherwise this can lead to extended delays in addressing safety needs which is not in the public interest. " Line 24- ...unless: (i) Only checkboards are replaced; (ii) Fish passage approval has already been obtained in writing from the Department for expected replacement; or (iii) changes are required by Federal or State Dam Safety Jurisdiction to address public safety or health concern" 2021-03-22 11:41:33

13 19 Portland "635-412-0005 / 9(c) Clarification of "storage capacity"" "Modifications that are for dam safety and/or to increase reservoir storage to address only high runoff conditions and protection of downstream resources should be exempt from this. For example, FERC may require a dam height increased to help handle a PMF, but that extra storage would not be part of normal operations but is only used during a PMF. Such an improvement or modification should not be a trigger for fish passage. Using such a requirement as a trigger causes delay to critical dam safety needs. the proposed change clarifies that increasing OPERATING storage could trigger the OAR" Line 38 (c) Structural modifications that increase operating storage or diversion capacity; or 2021-03-22 12:07:29

14 20 Grants Pass Public "(2) "Active channel width" means the naturally-occurring stream width between the ordinary high water lines, or at the channel bankfull elevation if the ordinary high water lines are indeterminate. In bays and estuaries, active channel width is calculated as the summation of the active channel widths of all freshwater streams entering the bay or estuary upstream of the artificial obstruction" The proposed rule change is arbitrary and capricious in regards to the bay and estuary active channel width determinations. This isn't a valid scientifically based method to determine active channel width. Take a look at the huge bridge in Astoria that spans for miles. How far upstream are you going to add freshwater streams up to get your active channel? This methodology isn't sound. Something more scientifically based. 2021-03-23 09:21:25

15 21 Grants Pass Public "63 (i) Activities defined under OAR 635-412-0005(9)(d) in all locations where current channels cross the artificial obstruction segmenting the estuary, floodplain, or wetland; or (ii) The cumulative removal, fill, replacement, or addition of over 50 percent by volume of the existing material directly above an historic channel or historically-inundated area; and (D) For other artificial obstructions, the cumulative removal, fill, replacement, or addition of over 50 percent of the structure within, below or above the channel..." This proposal isn't feasible. Who is going to track cumulative metrics and determine the 50% threshold from the time the artificial obstruction is built until the magic 50% number is hit? Can the unrealistic 50% threshold. 2021-03-23 09:25:25

16 22 Grants Pass Public "141 (27) ""Historically"" means prior to 1859 (statehood). " This is so arbitrary and needs to be removed. None of us were alive in 1859 and there isn't a statewide dataset that accurately. Folks are relying on a local ODFW biologist to make an opinion that could cost them millions of dollars. There is no method to contest their opinion and use science to come up with a different outcome. Climate change is real and has been occurring even before the industrial revolution. The world we live in today is not the world that existed in 1859. Remove historic. The world we live in today is not the world that existed in 1859 nor will it ever be 1859 conditions again. Focus on the changes we can make for tomorrow and remove the historic opinion based criteria. 2021-03-23 10:23:45

17 23 "Prineville, OR" Crook County IDENTIFY WHAT RULE(S) YOU WOULD LIKE TO SEE REVISED. PROVIDE SPECIFIC LINE NUMBER. OAR 635-412-0005 (25); lines 92-96 OAR 635-412-0010 (4); lines 193-209 OAR 635-412-0025 (2); lines 320-324 OAR 635-412-0040 (3); lines 685-687 "WHY IS THIS RULE CHANGE IMPORTANT? Oregon's Fish Passage laws were written to enhance and restore populations of native migratory fish (NMF). There are many notable examples where these laws have succeeded in meeting this goal. However, a recent project proposal at Bowman Dam has brought to light serious shortcomings in Oregon's Fish Passage Administrative Rules. Ochoco Irrigation district, in collaboration with the City of Prineville and Crook County, applied for a fish passage waiver for the Bowman Dam Hydroelectric Project. This retrofit project was proposed on a federally-owned water storage and flood control dam, to generate carbon-free electricity in concert with existing water operations. While installing the hydropower turbines, project proponents proposed to modify the outlet structure of Bowman Dam to reduce downstream dissolved gas concentrations— a well-known water quality problem in the Crooked River. The project was also seen as an opportunity to modernize control of discharge at the dam, which would allow operators to reduce ramping rates and precisely control water releases from Prineville Reservoir for the benefit of fish in the lower Crooked River. Despite the clear environmental benefits of the project, existing OARs required the Bowman Hydroelectric Project to apply for a Fish Passage Waiver because the proposed project represented a change in Artificial Obstruction permit status (OAR 635-412-0005 [25]). The applicants were informed in August 2019 by the Oregon Department of Fish and Wildlife ('Department') that OAR 635-412-0040 (3) disqualified water quality improvements as a form of fish passage mitigation because water quality is regulated by the Oregon Department of Environmental Quality (ODEQ). Therefore, in an effort to satisfy the waiver application process, project proponents offered three additional habitat restoration measures. The National Marine Fisheries Service and the U.S Fish and Wildlife Service concluded that the Bowman Hydroelectric Project offered significant benefits for NMF recovery in the lower Crooked River, including ESA-listed Chinook Salmon and steelhead trout. Nevertheless, Department staff continued to oppose the project because of their interpretation of the existing OARs. In October 2020, the Oregon Fish and



Wildlife Commission denied our application for a Fish Passage Waiver, citing the Department's determination that the proposed mitigation measures failed to meet the net benefit requirement. As a result, this renewable energy project will not proceed and none of the proposed water quality or habitat restoration measures will be implemented. In short, we lost the opportunity to develop a project that would benefit both the environment and the economy. We believe that the Fish Passage Administrative Rules are being implemented in a manner that undermines Oregon's broader statutory goals to enhance fish populations and reduce greenhouse gas emissions. More specifically, the Department's discretionary authority over the waiver application process has led to inconsistent outcomes due to ridged interpretation of the OARs in some instances (e.g. OAR 635-412-0040 [3]) and lack of strict adherence to the OARs in others (e.g. OAR 635-412-0025 [2]). In the case of Bowman Dam, the Department's myopic focus on fish passage as the only acceptable alternative made construction of the hydroelectric project cost prohibitive and satisfaction the waiver application process impossible. We request that the following OARs be revised and implemented in a manner that supports Oregon's broader composite objective to provide fish passage, enhance stream habitat conditions, and foster renewable energy projects: OAR 635-412-0005 (25) Retrofit hydroelectric projects provide a unique opportunity for meeting Oregon's greenhouse gas reduction goals while limiting effects on NMF. However, these projects are often small-scale and cannot generate enough revenue to provide fish passage at existing artificial obstructions. The Bowman Dam Hydroelectric Project, for example, would have produced enough clean energy to power 1,400 homes, but \$15 million in anticipated revenue during the licensing period was only a fraction of the cost of passage facilities at the dam (\$138-250 million). Such projects should not trigger fish passage requirements because doing so hinders progress towards meeting Oregon's goals. OAR 635-412-0005 (25) should be modified such that retrofit hydroelectric projects that do not alter the primary purpose of existing Artificial Obstructions do not trigger fish passage requirements. OAR 635-412-0010 (4) There were several instances during the Department's review of the Bowman Dam Hydroelectric Project waiver application where the current Fish Passage administrative rules were ignored or overlooked. Perhaps the most consequential example of this involved the Department's evaluation of passage benefits under historical conditions. The Department used a mile-for-mile approach to compare the quantity of habitat available upstream of Bowman Dam to the quantity of habitat improved by our proposed mitigation measures. Instead of using current data to determine the quantity of habitat upstream of the dam, the Department relied on assumed historical fish distributions. OAR 635-412-0025 (2) clearly states that the net benefit determination "shall be based upon conditions that exist at the time of comparison." The Department's decision to rely on historical conditions resulted in an enormous overestimate of the biological value of passage at Bowman Dam and subsequently required an unattainable amount of mitigation to receive a fish passage waiver. The Fish Passage Task Force should be required to review the Department's interpretation of the Fish Passage Administrative Rules and ensure all rules are consistently followed. OAR 635-412-0025 (2) The Department often bases their Net Benefit determination on a mile-for-mile comparison between the habitat available upstream of an artificial obstruction and the habitat restored by proposed mitigation measures. This approach manifestly fails to incorporate pertinent biological information. A clear example of this occurred in the Department's Net Benefit Analysis for the Bowman Dam Hydroelectric Project. The Department asserted that there were 57 miles of historical Chinook Salmon habitat located upstream of Bowman Dam. However, annual low flow conditions during the period of time when adult Chinook Salmon migrate would preclude access even if passage facilities were provided at the Dam. OAR 635-412-0025 (2) should require the Department to consider the biological

needs of each species when quantifying the value of passage. This includes factors expected to impair the ability of a species to complete its life-cycle if passage is provided. OAR 635-412-0040 (3) The Department has applied OAR 635-412-0040 (3) in direct conflict with the goal of Oregon's Fish Passage administrative rules to enhance and restore NMF populations. For example, in their Net Benefit Analysis of the Bowman Dam Hydroelectric Project, the Department refused to accept as mitigation structural modifications to the dam that would have resulted in significant improvements to water quality and NMF survival in the lower Crooked River. The Department interpreted OAR 635-412-0040 (3) such that the proposed modifications would eventually be required by ODEQ and therefore could not count as mitigation, despite the obvious benefits for fish. The Department then determined that the project would not meet the net benefit standard necessary to receive a fish passage waiver. OAR 635-412-0040 (3) should be modified to include as mitigation any activity that benefits NMF if the activity would only occur upon the approval of a Fish Passage Waiver. " "SUGGESTED RULE CHANGE FOR CONSIDERATION BY THE RULES ADVISORY COMMITTEE? PROVIDE SPECIFIC LINE NUMBER. 635-412-0005 (25); lines 92-96: "Fundamental change in permit status' means a change in regulatory approval for the operation of an artificial obstruction where the regulatory agency has discretion to impose additional conditions on the applicant, including but not limited to licensing, relicensing, reauthorization or the granting of new water rights, but not including water right transfers or routine maintenance permits AND HYDROPOWER RETROFIT PROJECTS, unless they involve construction or abandonment of an artificial obstruction." 635-412-0010 (4); lines 193-209: "The Task Force shall: (a) Serve as the public advisory committee and advise the Director and Commission regarding rulemaking to implement the fish passage and waiver requirements; (b) Prioritize projects from the statewide inventory of artificial dams and obstructions for purposes of enforcement; (c) Recommend to the Director and Commission appropriate levels of funding and special conditions applicable to projects installing passage or alternatives to passage resulting in a net benefit to native migratory fish; (d) Select one of its members to serve as chair and one as vice chair of the Task Force; (e) Review and recommend to the Commission which projects should be exempt, and changes to the list of projects exempt from passage requirements under section 8 of Section 2 of HB 3002 (2001); (f) Report semiannually to the joint legislative committee created under ORS 171.551, or to the appropriate interim legislative committee with responsibility for salmon restoration or species recovery, advising the committee on matters related to fish passage; (g) Review applications for waivers of the fish passage requirement, REVIEW THE DEPARTMENT'S INTERPRETATION OF THE FISH PASSAGE ADMINISTRATIVE RULES AS APPLIED TO EACH PASSAGE PROJECT AND PASSAGE WAIVER APPLICATION, and advise the Commission as to whether alternative measures result in a net benefit to native migratory fish; (h) Perform such other duties relating to fish passage as requested by the Director or Commission; (i) The task force shall meet at such times and places as may be determined by the chair or by a majority of members of the task force." 635-412-0025 (2); lines 320-324: "Net benefit to native migratory fish is determined by comparing the benefit to native migratory fish that would occur if the artificial obstruction had fish passage to the benefit to native migratory fish that would occur using the proposed mitigation. To qualify for a waiver of the requirement to install fish passage, mitigation shall result in a benefit to fish greater than that provided by the artificial obstruction with fish passage. The net benefit to fish determination shall be based upon conditions that exist at the time of comparison AND SHALL CONSIDER THE AVAILABILITY OF THE FULL COMPLIMENT OF HABITAT CONDITIONS NECESSARY FOR EACH SPECIES TO COMPLETE ITS LIFE CYCLE." 635-412-0040 (3); lines 685-687: "Mitigation shall not include any activity that is a requirement or condition of any other agreement, law, permit, or authorization except if it is also for fish passage

mitigation of the same action at the artificial obstruction for a different level of government OR IF THE ACTIVITY IS CONDITIONAL ON APPROVAL OF A FISH PASSAGE WAIVER BY THE COMMISSION.” " 2021-04-08 14:13:04

18 24 Prineville Ochoco Irrigation District OAR 635-412-0005 (25); lines 92-96  
OAR 635-412-0010 (4); lines 193-209 OAR 635-412-0025 (2); lines 320-324 OAR 635-412-0040 (3);  
lines 685-687 "Oregon's Fish Passage laws were written to enhance and restore populations of native  
migratory fish (NMF). There are many notable examples where these laws have succeeded in meeting  
this goal. However, a recent project proposal at Bowman Dam has brought to light serious shortcomings  
in Oregon's Fish Passage Administrative Rules. Ochoco Irrigation district, in collaboration with the City  
of Prineville and Crook County, applied for a fish passage waiver for the Bowman Dam Hydroelectric  
Project. This retrofit project was proposed on a federally-owned water storage and flood control dam, to  
generate carbon-free electricity in concert with existing water operations. While installing the  
hydropower turbines, project proponents proposed to modify the outlet structure of Bowman Dam to  
reduce downstream dissolved gas concentrations— a well-known water quality problem in the Crooked  
River. The project was also seen as an opportunity to modernize control of discharge at the dam, which  
would allow operators to reduce ramping rates and precisely control water releases from Prineville  
Reservoir for the benefit of fish in the lower Crooked River. Despite the clear environmental benefits of  
the project, existing OARs required the Bowman Hydroelectric Project to apply for a Fish Passage Waiver  
because the proposed project represented a change in Artificial Obstruction permit status (OAR 635-  
412-0005 [25]). The applicants were informed in August 2019 by the Oregon Department of Fish and  
Wildlife ('Department') that OAR 635-412-0040 (3) disqualified water quality improvements as a form of  
fish passage mitigation because water quality is regulated by the Oregon Department of Environmental  
Quality (ODEQ). Therefore, in an effort to satisfy the waiver application process, project proponents  
offered three additional habitat restoration measures. The National Marine Fisheries Service and the  
U.S Fish and Wildlife Service concluded that the Bowman Hydroelectric Project offered significant  
benefits for NMF recovery in the lower Crooked River, including ESA-listed Chinook Salmon and  
steelhead trout. Nevertheless, Department staff continued to oppose the project because of their  
interpretation of the existing OARs. In October 2020, the Oregon Fish and Wildlife Commission denied  
our application for a Fish Passage Waiver, citing the Department's determination that the proposed  
mitigation measures failed to meet the net benefit requirement. As a result, this renewable energy  
project will not proceed and none of the proposed water quality or habitat restoration measures will be  
implemented. In short, we lost the opportunity to develop a project that would benefit both the  
environment and the economy. We believe that the Fish Passage Administrative Rules are being  
implemented in a manner that undermines Oregon's broader statutory goals to enhance fish  
populations and reduce greenhouse gas emissions. More specifically, the Department's discretionary  
authority over the waiver application process has led to inconsistent outcomes due to ridged  
interpretation of the OARs in some instances (e.g. OAR 635-412-0040 [3]) and lack of strict adherence to  
the OARs in others (e.g. OAR 635-412-0025 [2]). In the case of Bowman Dam, the Department's myopic  
focus on fish passage as the only acceptable alternative made construction of the hydroelectric project  
cost prohibitive and satisfaction the waiver application process impossible. We request that the  
following OARs be revised and implemented in a manner that supports Oregon's broader composite  
objective to provide fish passage, enhance stream habitat conditions, and foster renewable energy  
projects: OAR 635-412-0005 (25) Retrofit hydroelectric projects provide a unique opportunity for  
meeting Oregon's greenhouse gas reduction goals while limiting effects on NMF. However, these

projects are often small-scale and cannot generate enough revenue to provide fish passage at existing artificial obstructions. The Bowman Dam Hydroelectric Project, for example, would have produced enough clean energy to power 1,400 homes, but \$15 million in anticipated revenue during the licensing period was only a fraction of the cost of passage facilities at the dam (\$138-250 million). Such projects should not trigger fish passage requirements because doing so hinders progress towards meeting Oregon's goals. OAR 635-412-0005 (25) should be modified such that retrofit hydroelectric projects that do not alter the primary purpose of existing Artificial Obstructions do not trigger fish passage requirements. OAR 635-412-0010 (4) There were several instances during the Department's review of the Bowman Dam Hydroelectric Project waiver application where the current Fish Passage administrative rules were ignored or overlooked. Perhaps the most consequential example of this involved the Department's evaluation of passage benefits under historical conditions. The Department used a mile-for-mile approach to compare the quantity of habitat available upstream of Bowman Dam to the quantity of habitat improved by our proposed mitigation measures. Instead of using current data to determine the quantity of habitat upstream of the dam, the Department relied on assumed historical fish distributions. OAR 635-412-0025 (2) clearly states that the net benefit determination "shall be based upon conditions that exist at the time of comparison." The Department's decision to rely on historical conditions resulted in an enormous overestimate of the biological value of passage at Bowman Dam and subsequently required an unattainable amount of mitigation to receive a fish passage waiver. The Fish Passage Task Force should be required to review the Department's interpretation of the Fish Passage Administrative Rules and ensure all rules are consistently followed. OAR 635-412-0025 (2) The Department often bases their Net Benefit determination on a mile-for-mile comparison between the habitat available upstream of an artificial obstruction and the habitat restored by proposed mitigation measures. This approach manifestly fails to incorporate pertinent biological information. A clear example of this occurred in the Department's Net Benefit Analysis for the Bowman Dam Hydroelectric Project. The Department asserted that there were 57 miles of historical Chinook Salmon habitat located upstream of Bowman Dam. However, annual low flow conditions during the period of time when adult Chinook Salmon migrate would preclude access even if passage facilities were provided at the Dam. OAR 635-412-0025 (2) should require the Department to consider the biological needs of each species when quantifying the value of passage. This includes factors expected to impair the ability of a species to complete its life-cycle if passage is provided. OAR 635-412-0040 (3) The Department has applied OAR 635-412-0040 (3) in direct conflict with the goal of Oregon's Fish Passage administrative rules to enhance and restore NMF populations. For example, in their Net Benefit Analysis of the Bowman Dam Hydroelectric Project, the Department refused to accept as mitigation structural modifications to the dam that would have resulted in significant improvements to water quality and NMF survival in the lower Crooked River. The Department interpreted OAR 635-412-0040 (3) such that the proposed modifications would eventually be required by ODEQ and therefore could not count as mitigation, despite the obvious benefits for fish. The Department then determined that the project would not meet the net benefit standard necessary to receive a fish passage waiver. OAR 635-412-0040 (3) should be modified to include as mitigation any activity that benefits NMF if the activity would only occur upon the approval of a Fish Passage Waiver. " "635-412-0005 (25); lines 92-96: "'Fundamental change in permit status' means a change in regulatory approval for the operation of an artificial obstruction where the regulatory agency has discretion to impose additional conditions on the applicant, including but not limited to licensing, relicensing, reauthorization or the granting of new water rights, but not including water right transfers or routine maintenance permits AND HYDROPOWER RETROFIT PROJECTS, unless

they involve construction or abandonment of an artificial obstruction.” 635-412-0010 (4); lines 193-209: “The Task Force shall: (a) Serve as the public advisory committee and advise the Director and Commission regarding rulemaking to implement the fish passage and waiver requirements; (b) Prioritize projects from the statewide inventory of artificial dams and obstructions for purposes of enforcement; (c) Recommend to the Director and Commission appropriate levels of funding and special conditions applicable to projects installing passage or alternatives to passage resulting in a net benefit to native migratory fish; (d) Select one of its members to serve as chair and one as vice chair of the Task Force; (e) Review and recommend to the Commission which projects should be exempt, and changes to the list of projects exempt from passage requirements under section 8 of Section 2 of HB 3002 (2001); (f) Report semiannually to the joint legislative committee created under ORS 171.551, or to the appropriate interim legislative committee with responsibility for salmon restoration or species recovery, advising the committee on matters related to fish passage; (g) Review applications for waivers of the fish passage requirement, REVIEW THE DEPARTMENT’S INTERPRETATION OF THE FISH PASSAGE ADMINISTRATIVE RULES AS APPLIED TO EACH PASSAGE PROJECT AND PASSAGE WAIVER APPLICATION, and advise the Commission as to whether alternative measures result in a net benefit to native migratory fish; (h) Perform such other duties relating to fish passage as requested by the Director or Commission; (i) The task force shall meet at such times and places as may be determined by the chair or by a majority of members of the task force.” 635-412-0025 (2); lines 320-324: “Net benefit to native migratory fish is determined by comparing the benefit to native migratory fish that would occur if the artificial obstruction had fish passage to the benefit to native migratory fish that would occur using the proposed mitigation. To qualify for a waiver of the requirement to install fish passage, mitigation shall result in a benefit to fish greater than that provided by the artificial obstruction with fish passage. The net benefit to fish determination shall be based upon conditions that exist at the time of comparison AND SHALL CONSIDER THE AVAILABILITY OF THE FULL COMPLIMENT OF HABITAT CONDITIONS NECESSARY FOR EACH SPECIES TO COMPLETE ITS LIFE CYCLE.” 635-412-0040 (3); lines 685-687: “Mitigation shall not include any activity that is a requirement or condition of any other agreement, law, permit, or authorization except if it is also for fish passage mitigation of the same action at the artificial obstruction for a different level of government OR IF THE ACTIVITY IS CONDITIONAL ON APPROVAL OF A FISH PASSAGE WAIVER BY THE COMMISSION.” " 2021-04-08 14:14:26

19 25 City of Prineville City of Prineville OAR 635-412-0005 (25); lines 92-96  
OAR 635-412-0010 (4); lines 193-209 OAR 635-412-0025 (2); lines 320-324 OAR 635-412-0040 (3);  
lines 685-687 "Oregon’s Fish Passage laws were written to enhance and restore populations of native  
migratory fish (NMF). There are many notable examples where these laws have succeeded in meeting  
this goal. However, a recent project proposal at Bowman Dam has brought to light serious shortcomings  
in Oregon’s Fish Passage Administrative Rules. Ochoco Irrigation district, in collaboration with the City  
of Prineville and Crook County, applied for a fish passage waiver for the Bowman Dam Hydroelectric  
Project. This retrofit project was proposed on a federally-owned water storage and flood control dam, to  
generate carbon-free electricity in concert with existing water operations. While installing the  
hydropower turbines, project proponents proposed to modify the outlet structure of Bowman Dam to  
reduce downstream dissolved gas concentrations– a well-known water quality problem in the Crooked  
River. The project was also seen as an opportunity to modernize control of discharge at the dam, which  
would allow operators to reduce ramping rates and precisely control water releases from Prineville  
Reservoir for the benefit of fish in the lower Crooked River. Despite the clear environmental benefits of  
the project, existing OARs required the Bowman Hydroelectric Project to apply for a Fish Passage Waiver

because the proposed project represented a change in Artificial Obstruction permit status (OAR 635-412-0005 [25]). The applicants were informed in August 2019 by the Oregon Department of Fish and Wildlife ('Department') that OAR 635-412-0040 (3) disqualified water quality improvements as a form of fish passage mitigation because water quality is regulated by the Oregon Department of Environmental Quality (ODEQ). Therefore, in an effort to satisfy the waiver application process, project proponents offered three additional habitat restoration measures. The National Marine Fisheries Service and the U.S Fish and Wildlife Service concluded that the Bowman Hydroelectric Project offered significant benefits for NMF recovery in the lower Crooked River, including ESA-listed Chinook Salmon and steelhead trout. Nevertheless, Department staff continued to oppose the project because of their interpretation of the existing OARs. In October 2020, the Oregon Fish and Wildlife Commission denied our application for a Fish Passage Waiver, citing the Department's determination that the proposed mitigation measures failed to meet the net benefit requirement. As a result, this renewable energy project will not proceed and none of the proposed water quality or habitat restoration measures will be implemented. In short, we lost the opportunity to develop a project that would benefit both the environment and the economy. We believe that the Fish Passage Administrative Rules are being implemented in a manner that undermines Oregon's broader statutory goals to enhance fish populations and reduce greenhouse gas emissions. More specifically, the Department's discretionary authority over the waiver application process has led to inconsistent outcomes due to ridged interpretation of the OARs in some instances (e.g. OAR 635-412-0040 [3]) and lack of strict adherence to the OARs in others (e.g. OAR 635-412-0025 [2]). In the case of Bowman Dam, the Department's myopic focus on fish passage as the only acceptable alternative made construction of the hydroelectric project cost prohibitive and satisfaction the waiver application process impossible. We request that the following OARs be revised and implemented in a manner that supports Oregon's broader composite objective to provide fish passage, enhance stream habitat conditions, and foster renewable energy projects: OAR 635-412-0005 (25) Retrofit hydroelectric projects provide a unique opportunity for meeting Oregon's greenhouse gas reduction goals while limiting effects on NMF. However, these projects are often small-scale and cannot generate enough revenue to provide fish passage at existing artificial obstructions. The Bowman Dam Hydroelectric Project, for example, would have produced enough clean energy to power 1,400 homes, but \$15 million in anticipated revenue during the licensing period was only a fraction of the cost of passage facilities at the dam (\$138-250 million). Such projects should not trigger fish passage requirements because doing so hinders progress towards meeting Oregon's goals. OAR 635-412-0005 (25) should be modified such that retrofit hydroelectric projects that do not alter the primary purpose of existing Artificial Obstructions do not trigger fish passage requirements. OAR 635-412-0010 (4) There were several instances during the Department's review of the Bowman Dam Hydroelectric Project waiver application where the current Fish Passage administrative rules were ignored or overlooked. Perhaps the most consequential example of this involved the Department's evaluation of passage benefits under historical conditions. The Department used a mile-for-mile approach to compare the quantity of habitat available upstream of Bowman Dam to the quantity of habitat improved by our proposed mitigation measures. Instead of using current data to determine the quantity of habitat upstream of the dam, the Department relied on assumed historical fish distributions. OAR 635-412-0025 (2) clearly states that the net benefit determination "shall be based upon conditions that exist at the time of comparison." The Department's decision to rely on historical conditions resulted in an enormous overestimate of the biological value of passage at Bowman Dam and subsequently required an unattainable amount of mitigation to receive a fish passage waiver. The Fish

Passage Task Force should be required to review the Department's interpretation of the Fish Passage Administrative Rules and ensure all rules are consistently followed. OAR 635-412-0025 (2) The Department often bases their Net Benefit determination on a mile-for-mile comparison between the habitat available upstream of an artificial obstruction and the habitat restored by proposed mitigation measures. This approach manifestly fails to incorporate pertinent biological information. A clear example of this occurred in the Department's Net Benefit Analysis for the Bowman Dam Hydroelectric Project. The Department asserted that there were 57 miles of historical Chinook Salmon habitat located upstream of Bowman Dam. However, annual low flow conditions during the period of time when adult Chinook Salmon migrate would preclude access even if passage facilities were provided at the Dam. OAR 635-412-0025 (2) should require the Department to consider the biological needs of each species when quantifying the value of passage. This includes factors expected to impair the ability of a species to complete its life-cycle if passage is provided. OAR 635-412-0040 (3) The Department has applied OAR 635-412-0040 (3) in direct conflict with the goal of Oregon's Fish Passage administrative rules to enhance and restore NMF populations. For example, in their Net Benefit Analysis of the Bowman Dam Hydroelectric Project, the Department refused to accept as mitigation structural modifications to the dam that would have resulted in significant improvements to water quality and NMF survival in the lower Crooked River. The Department interpreted OAR 635-412-0040 (3) such that the proposed modifications would eventually be required by ODEQ and therefore could not count as mitigation, despite the obvious benefits for fish. The Department then determined that the project would not meet the net benefit standard necessary to receive a fish passage waiver. OAR 635-412-0040 (3) should be modified to include as mitigation any activity that benefits NMF if the activity would only occur upon the approval of a Fish Passage Waiver. " 635-412-0005 (25); lines 92-96: "Fundamental change in permit status' means a change in regulatory approval for the operation of an artificial obstruction where the regulatory agency has discretion to impose additional conditions on the applicant, including but not limited to licensing, relicensing, reauthorization or the granting of new water rights, but not including water right transfers or routine maintenance permits AND HYDROPOWER RETROFIT PROJECTS, unless they involve construction or abandonment of an artificial obstruction." 635-412-0010 (4); lines 193-209: "The Task Force shall: (a) Serve as the public advisory committee and advise the Director and Commission regarding rulemaking to implement the fish passage and waiver requirements; (b) Prioritize projects from the statewide inventory of artificial dams and obstructions for purposes of enforcement; (c) Recommend to the Director and Commission appropriate levels of funding and special conditions applicable to projects installing passage or alternatives to passage resulting in a net benefit to native migratory fish; (d) Select one of its members to serve as chair and one as vice chair of the Task Force; (e) Review and recommend to the Commission which projects should be exempt, and changes to the list of projects exempt from passage requirements under section 8 of Section 2 of HB 3002 (2001); (f) Report semiannually to the joint legislative committee created under ORS 171.551, or to the appropriate interim legislative committee with responsibility for salmon restoration or species recovery, advising the committee on matters related to fish passage; (g) Review applications for waivers of the fish passage requirement, REVIEW THE DEPARTMENT'S INTERPRETATION OF THE FISH PASSAGE ADMINISTRATIVE RULES AS APPLIED TO EACH PASSAGE PROJECT AND PASSAGE WAIVER APPLICATION, and advise the Commission as to whether alternative measures result in a net benefit to native migratory fish; (h) Perform such other duties relating to fish passage as requested by the Director or Commission; (i) The task force shall meet at such times and places as may be determined by the chair or by a majority of members of the task force." 635-412-0025 (2); lines 320-324: "Net benefit to native migratory fish is

determined by comparing the benefit to native migratory fish that would occur if the artificial obstruction had fish passage to the benefit to native migratory fish that would occur using the proposed mitigation. To qualify for a waiver of the requirement to install fish passage, mitigation shall result in a benefit to fish greater than that provided by the artificial obstruction with fish passage. The net benefit to fish determination shall be based upon conditions that exist at the time of comparison AND SHALL CONSIDER THE AVAILABILITY OF THE FULL COMPLIMENT OF HABITAT CONDITIONS NECESSARY FOR EACH SPECIES TO COMPLETE ITS LIFE CYCLE.” 635-412-0040 (3); lines 685-687: “Mitigation shall not include any activity that is a requirement or condition of any other agreement, law, permit, or authorization except if it is also for fish passage mitigation of the same action at the artificial obstruction for a different level of government OR IF THE ACTIVITY IS CONDITIONAL ON APPROVAL OF A FISH PASSAGE WAIVER BY THE COMMISSION.” " 2021-04-08 14:19:18

20 26 Florence Coquille Indian Tribe 635-412-0010 Fish Passage Taskforce  
Inclusivity and upholding government to government relations The taskforce does not include a member of any of the 9 federally recognized tribes in Oregon. There should be a tribal representative on the taskforce. 2021-05-03 10:49:08

21 27 Portland USFWS General "The format of the document (an outline with no indentation) provided with numbered lines was difficult to review, and took unnecessary time to track how bullets related to earlier bullets. The available formatted version did not have line numbers."  
Recommend ODFW provide a formatted outline with line numbering for such reviews. 2021-05-03 15:40:58

22 28 Portland USFWS General/ Possibly 633-635? "Consider adding dewatering criteria in this rule. Dewatering streambeds are common when construction passage improvements or culvert replacements. Because larval lamprey live in sediments for 3-8 years, and can be numerous in suitable habitats, localized populations are impacted when drawdowns dewater and kills 100s to 1000s of larval lamprey of multiple age classes. Drawdowns should be 1-2 inches per hour increases survival of larval Entosphenus and Lampetra species. There are dewatering/salvage/e-fishing guidelines and information in Best Management Guidelines for Native Lampreys During In-water Work (Lamprey Technical Workgroup 2020:  
<https://www.fws.gov/pacificlamprey/Documents/2020%20Lamprey%20BMG%20Final.pdf>) " 2021-05-03 15:42:18

23 29 Portland USFWS General "To address screening for lamprey species, there are screening guidelines and information in Appendix D of the Best Management Guidelines for Native Lampreys During In-water Work (Lamprey Technical Workgroup 2020:  
<https://www.fws.gov/pacificlamprey/Documents/2020%20Lamprey%20BMG%20Final.pdf>) These guidelines could be applied based on the likely size of larval lamprey and appropriate screening size that would be encountered at a specific site, for fish passage and for when dewatering construction areas using pumps." 2021-05-03 15:43:12

24 30 Portland USFWS 144 Consider adding Peamouth Chub (*Mylocheilus caurinus*) as a migratory fish. This species has fluvial movement patterns (perhaps adfluvial in some places) during its spawning period. It utilizes similar spawning habitat as steelhead. Insert Peamouth Chub (*Mylocheilus caurinus*) as a migratory fish at line 144. 2021-05-03 15:44:02



25 31 Portland USFWS 424-425 "Here and throughout, where relevant, consider consistency with NMFS (National Marine Fisheries Service). 2011. Anadromous Salmonid Passage Facility Design. NMFS, Northwest Region, Portland, Oregon, or the most up-to-date version of that document. For example "4.2.2.3 Attraction Flow: Attraction flow from the fishway entrance should be between 5% and 10% of fish passage design high flow (see Section 3) for streams with mean annual stream flows exceeding 1000 cfs. For smaller streams, when feasible, use larger percentages (up to 100%) of streamflow. Generally speaking, the higher percentages of total river flow used for attraction into the fishway, the more effective the facility will be in providing upstream passage. Some situations may require more than 10% of the passage design high flow, if site features obscure approach routes to the passage facility."" "Recommend ODFW compare NMFS and ODFW criteria where relevant. To the extend that opposing criteria should be reduced or minimized. If opposing criteria, such as jump height are encountered, the metric most beneficial (smaller jump height) for example should be used. Overall this will reduce compliance issues for third parties." 2021-05-03 15:45:28

26 32 Portland USFWS 426 "Current rule revisions do not mention the need for laminar flow. Turbulence and non-laminar flows create confusing signals for migrating fish. Velocities within fishways and at entrances should be designed for laminar flow. Minimizing turbulent flows within fishways and creating entrances with laminar flow will increase passage success for a full suite of native fish including lamprey species, juvenile of salmonids and other native fish, native suckers, etc." "Insert between Line 426 and 427: Velocities in fishways and at entrances should be designed to be non-turbulent and laminar. Auxiliary water supply, if present, should not increase turbulence or confusing flows. " 2021-05-03 15:46:38

27 33 Portland USFWS 248-431 "These appear to be criteria developed for trout and anadromous salmon, but do not state that, and do not recognize the multiple migratory fish species for which ODFW is proposing to manage and provide guidance on fish passage. For lamprey species, velocities of 5 and 8 feet per second could limit passage of Entosphenus (unless smooth continuous attachment surfaces are provided), and will limit passage of Lampetra species. ""Insert after line 431: (D) Additional criteria may be required to provide passage for all migratory fish present at the location, including but not limited to Sections [Refer to species-specific portions] " 2021-05-03 15:47:44

28 34 Portland USFWS 432-434 "A 6 inch jump does not recognize the multiple migratory fish species for which ODFW is proposing to manage and provide guidance on fish passage. USFWS's review focused primarily on Lampetra and Entosphenus, which are species that cannot jump. Many other native migratory fish also have limited jumping ability compared to adult salmonids. To the extent possible, modern nature-like fishways without jumps and stream simulation designs (with channel designed to 1.5 times active channel width) should be considered and noted as "preferred."" "At the end of line 434, add the following text: ; for areas where Entosphenus and Lampetra species require adult fish passage, there shall be no difference in the upstream and downstream water surface elevation (no rise). " 2021-05-03 15:48:54

29 35 Portland USFWS 469-471 "(2) (j) F The USFWS will be publishing Fish Passage Guideline in 2021 or 2022- the OARs should allow for the flexibility for ODFW to use this guideline document (not strict criteria). These guidelines will address passage for both bull trout and Pacific lamprey. In addition to that future document, there are two existing lamprey passage guideline documents for Entosphenus species- one Pacific lamprey passage in "standard"/salmonid fishways:

Practical Guidelines for Incorporating Adult Pacific Lamprey Passage at Fishways (Lamprey Technical Workgroup 2017) And one for culvert passage: Barriers to Adult Pacific Lamprey at Road Crossings: Guidelines for Evaluating and Providing Passage (Lamprey Technical Workgroup 2020). We recommend that the OARs allow flexibility for ODFW to use these documents and, where appropriate, use or reference in ODFW's development of fish passage guidance documents. " Throughout document as necessary; particularly sections pertaining to Pacific lamprey or Bull Trout. 2021-05-03 15:51:42

30 36 Portland USFWS 475-476 "Denil fishways have not been evaluated for many native species including lampreys. At Warm Springs National Fish Hatchery, adult Pacific Lamprey were found dead below the denil ladder. Denil weirs should be avoided in areas where lampreys are present, or passage for other native, non-salmonid fish species." "After line 476: Suggest adding language : "Denil fishways are not appropriate for passage of lampreys and many other native, non-salmonid fish species. In areas where native fish species require passage, but that passage of that species has not been evaluated for denil fishways, denil fishways should not be used." " 2021-05-03 15:52:36

31 37 Portland USFWS 501 "Stream simulation should be identified as the preferred option for fish passage. Given the wide range of fish species and various swimming abilities, stream simulation is the best alternative to provide passage for all fish species. It also best addresses riverine processes and other aquatic organisms, and provides the most ecological benefit short of structure removal." Add the words "preferred alternative" after Stream Simulation Option: (a) Stream Simulation Option (preferred alternative) 2021-05-03 15:53:44

32 38 Portland USFWS 504-505 "Stream simulation at 1.5 times active channel width is preferred over "equal to" active channel width. The larger span will likely ensure upstream passage for a larger number of migratory fish species, especially smaller species like western brook lamprey and Miller Lake lamprey. " Line 504: Suggest replacing "equal to active channel" with "1.5 times active channel" 2021-05-03 15:54:59

33 39 Portland USFWS 508-509 "Adult Pacific Lamprey migrate throughout the year and experience variable stream flow conditions. At velocities higher than the critical swimming speed (>0.86m/s) Pacific Lamprey use burst-and-attach swimming behavior (PLTW 2017). Given areas to attach and rest, lamprey can successfully navigate velocities <2.5m/s (8.2ft/s) (Keefer et al 2010). Oversized boulders provide attachment locations that allow lamprey to rest, which can be useful at higher flows throughout the year even when navigating relatively short structures. Oregon's other native lamprey are likely weaker swimmers than Pacific Lamprey, though their swimming abilities have not been explicitly studied. Oversized boulders would therefore be beneficially to the other native lamprey species at various velocities. Current language has over size rocks only in crossing over 40 ft in length. Pacific Lamprey Technical Workgroup. 2017. Practical guidelines for incorporating adult Pacific lamprey passage at fishways. June 2017. White Paper. 47 pp + Appendix. Available online: <https://www.fws.gov/pacificlamprey/mainpage.cfm> Keefer, M.L., W.R. Daigle, C.A. Peery, H.T. Pennington, S.R. Lee,

and M.L. Moser. 2010. Testing Adult Pacific Lamprey Performance

at Structural Challenges in Fishways. North American Journal of

Fisheries Management 30: 376-385." "Suggest changing existing line 509 that to read: "Contains partially-buried, over-sized rock for all road-stream crossing structure."" 2021-05-03 15:56:29

34 40 Portland USFWS 516-517 "Open-bottomed and closed-bottom road-stream crossing structures shall have bed material under or within the structure that are mechanically placed during structure installation rather than allowed to naturally accumulate. If material from outside the stream will be brought in and placed within the culvert, these materials should be cleaned prior to being put into the culvert to eliminate the risk of accidentally introducing organisms (e.g., non-native or invasive) from outside of the stream." Suggest inserting a new line after line 517 to indicate material brought in from outside the stream will be cleaned prior to placement under or within the road-stream crossing. 2021-05-03 15:57:26

35 41 Portland USFWS 560 "Adult Pacific lamprey can be collected in traps targeting other larger species. To reduce this potential, traps should be designed such that Pacific Lamprey can pass." "(6) Where relevant, traps targeting other species should be comprised of a material that allows adult Pacific lamprey to pass through with a spacing equal to or greater than 1.0 inches."2021-05-03 16:00:05

36 42 Portland USFWS 587-593 "Pacific lamprey (*Entosphenus tridentata*) should be addressed separately from *Lampetra* spp. Adult Pacific lamprey are larger, have a unique ability to climb, are larger, and their passage and swimming abilities have been documented and evaluated to some degree. Critical swimming speed of adult Pacific lamprey (Mesa et al. 2003; Moser and Mesa 2009). Velocities in the range of 2.5 - 3.0 m/sec (8.2 - 9.8 fps) exceeds burst swimming abilities and substantially inhibits (e.g., likely blocks) lamprey passage (LTW 2017). Fishways designed with velocities in less than 2.8 fps will pass Pacific lamprey using critical and free-swimming locomotion. Pacific lamprey more readily move with free-swimming in velocities < 1.2 m/sec (3.9 fps), which exceeds, but is close to sustained swimming abilities. Denil and similar fishways have not been evaluated for Pacific lamprey and are not recommended for use for lamprey. They likely limit passage of other small-bodied native migratory fishes as well. Denil weirs should not be used until such time that passage efficiency trials have occurred for Pacific lampreys. CITATIONS Mesa, M.G., J.M. Bayer, and J.G. Seelye. 2003. Swimming performance and physiological responses to exhaustive exercise in radio-tagged and untagged Pacific lampreys. *Transactions of the American Fisheries Society* 132:483–492. Pacific Lamprey Technical Workgroup. 2017. Practical guidelines for incorporating adult Pacific lamprey passage at fishways. June 2017. White Paper. 47 pp + Appendix. Available online: <https://www.fws.gov/pacificlamprey/mainpage.cfm> Moser, M.L., and M.G. Mesa. 2009. Passage considerations for lamprey. Pages 115-124 in: L.R. Brown, S.D. Chase, M.G. Mesa, R.J. Beamish and P.B. Moyle, editors. *American Fisheries Society Symposium 72: Biology, Management and Conservation of Lampreys in North America*. Bethesda, Maryland. " "Insert a new section at LINE 586 as follows (modified from the *Lampetra* spp. Section). Suggest the following text: (7) (c) *Entosphenus* species (Pacific lamprey): (A) Stream simulation techniques are preferred (span = 1.5 active channel width); (B) Fishways and culverts shall not have overhanging surfaces (e.g. entrance floor to fishways and culverts shall be submerged); (C) Fishways shall have smooth rounded 4 to 6 inch radii surfaces over which *Entosphenus* species may pass to move upstream. This includes but is not limited to the fishway entrance, over or through weirs, slots and orifices, as well as culvert aprons. (E) Orifices are preferred when possible. If orifices (including entrances) are applicable, they shall be positioned flush to the fishway floor, and if possible, flush along one wall. (F) Fishways shall, in all locations have water

velocities no greater than \*2.8 feet per second and avoid turbulent flow to pass Entosphenus species. Fishway flows at the entrance and throughout the fishway should be non-turbulent and laminar flow. (G) Dams associated with fishways shall have smooth 4- 6 inch rounded surfaces which allow Entosphenus species to pass over. Dams with 90 degree corners or chamfers can limit passage for Entosphenus species. (H) In areas of high velocities (>2.5 feet per second), regular maintenance and repair of floors, walls and rounded surfaces is needed to ensure smooth, continuous attachment surfaces are available for burst and attach locomotion. (I) Passage for lamprey at tide gate entrances and exits is not studied; thus, new tide gates should be avoided. (J) Denil fishways should not be used for passage of lampreys. (K) Picketed leads, picket weirs, auxiliary water supply grating or any other grating shall have a spacing of less than 0.7 inches to preclude lamprey passage where applicable, or greater than 1.0 inch to allow passage through, where applicable. " 2021-05-03 16:02:07

37 43 Portland USFWS 588-593 "Passage of any Lampetra species has not been well studied; thus stream simulation design that provides a natural type channel provides the greatest potential for passage. Lampetra species are also smaller than Entosphenus spp., and likely have reduced swimming abilities than Entosphenus spp. Lamprey species cannot jump, and primarily swim low in the water column. Thus, overhanging surfaces (such as a perched culverts) or other features that require jumping to pass upstream are passage barriers for these species. To accommodate lamprey species behaviors and abilities, nature-like fishways and stream simulation techniques are the most likely to success in passage of these species (as well as many other smaller migratory fish species and amphibians). If fishways are constructed, lower orifices flush to the floor are preferred when orifices are present in fishways. " "Insert the modified section below to replace the Lampetra spp. (lines 588-593). Proposed section: (7) (d) Lampetra species (lampreys): (A) Stream simulation techniques are preferred (span = 1.5 active channel width); (B) Fishways shall not have overhanging surfaces (e.g. entrance floor to fishways and culverts shall be submerged); (C) Orifices are preferred when possible. If orifices (including entrances) are applicable, they shall be positioned flush to the fishway floor, and if possible, flush along one wall. The lack of orifices will likely prevent passage of smaller Lampetra species. (D) Denil and similar fishways have not been evaluated for Lampetra species and are not recommended for use for any species. To the extent possible, modern nature-like fishways without high velocities and turbulent flow should be considered for Lampetra species. E) Passage for lamprey at tide gate entrances and exits has not been studied; thus, installation and use of new tide gates should be avoided. " 2021-05-03 16:03:13

38 44 Portland USFWS 633-635 "In addition to fish salvage that is completed prior to construction activity, freshwater mussels and crayfish should be salvaged too. Mussel relocation guidance: Blevins, E., L. McMullen, S. Jepsen, M. Blackburn, A. Code, and S.H. Black. 2017. Conserving the Gems of Our Waters: Best Management Practices for Protecting Native Western Freshwater Mussels During Aquatic and Riparian Restoration, Construction, and Land Management Projects and Activities. 108 pp. Portland, OR: Xerces Society for Invertebrate Conservation. Available at <https://xerces.org/publications/guidelines/conserving-gems-of-our-waters> " "Suggest changing existing line 633 to read "Prior to in-stream construction activities, all fish, native freshwater mussels, and crayfish shall be safely collected..." " 2021-05-03 16:05:46

39 45 Portland USFWS 633-635 "Special efforts to salvage larval lamprey, which reside in the sediment year-round, should also be made. Larval lamprey often are not collected by standard e-fishing techniques and often emerge from the sediment hours to days after dewatering

activities. Larval lamprey spp. Dewatering/salvage/e-fishing guidelines and information is available in in Best Management Guidelines for Native Lampreys During In-water Work (Lamprey Technical Workgroup 2020: <https://www.fws.gov/pacificlamprey/Documents/2020%20Lamprey%20BMG%20Final.pdf>) "

"Suggest adding to text in 633-635: In suitable habitats, larval lamprey be will salvaged and rescued, using larval lamprey specific techniques. " 2021-05-03 16:06:53

40 46 Portland USFWS 633-635 "Fish salvage will be completed by authorized personnel with a collection permit issued by the Department. A federal recovery permit is required to intentionally collect listed aquatic species. Even if there is a slim chance they could be encountered, possession of a federal recovery permit would authorize collection of listed species for rescue/salvage."

"Suggest adding text to change existing lines 634-635 to "...permit issued by the Department, USFWS and NMFS, as appropriate." " 2021-05-03 16:07:53

41 47 Portland USFWS 633-635 Text states salvaged fish should be placed in the flowing stream but does not indicate where fish should be released relative to ongoing project impacts. Recommend fish are released outside of project area impacts to reduce or eliminate exposure to turbidity (suspended sediments) or other impacts due to construction. Suggest adding text to change existing line 634 to "...placed in the flowing stream outside of the area of project impacts. ..." 2021-05-03 16:08:56

42 48 Portland PacifiCorp 635-412- "PacifiCorp owns over 3,000 megawatts of renewable energy generating facilities, including several hydroelectric projects on waters of the state of Oregon inhabited by native migratory fish. The company is also expanding its renewable generation portfolio to address climate change impacts and ultimately achieve net zero greenhouse gas emissions in service of over 2 million customers across six western states. Therefore, PacifiCorp hereby expresses its support and interest in Oregon Department of Fish and Wildlife (ODFW)'s current review and revision of the fish passage administrative rules (Oregon Administrative Rules (OAR) 635-412-) as motivated, in part, by ODFW's new Climate and Ocean Change Policy (OAR 635-900-). Addressing climate change will require prudent, near-term actions to support ODFW's mission to protect and enhance Oregon's fish and wildlife and their habitats for use and enjoyment by present and future generations. PacifiCorp supports science-based decision-making regarding fish passage in Oregon for the purposes of achieving recovering and sustainable populations of native migratory fish. PacifiCorp also notes that hydropower has a significant role to play in moving towards carbon-neutral operations in Oregon and ameliorating the causes and effects of climate change. Therefore, the climate change benefits of hydroelectricity should be considered in net benefit analyses of fish passage at hydropower facilities. PacifiCorp has gained experience implementing fish passage solutions at our federally-licensed hydroelectric projects, and we have learned that site-specific information on current and, to the extent possible, future conditions must be considered in implementation of the administrative rules to maximize long-term net benefits to native migratory fish. In certain cases, biological research has concluded that there may be little value to local fish populations in light of the expense of constructing, operating, and maintaining fish passage at an artificial obstruction. Off-site mitigation projects with lower costs than implementing fish passage at an artificial obstruction can provide a greater net benefit to at-risk fish populations, including some that may not be present at the site. The revised administrative rules should clarify that it is the intent of the state to achieve the highest net benefit to fish populations when considering the impacts of an artificial obstruction and any proposed mitigation measures. " "Introduction (New) RAC members have suggested an introductory statement of policy and intent. Our suggested language is

as follows: It is the policy of the State of Oregon to provide for the upstream and downstream passage of native migratory fish at artificial obstructions. Potential changes in Oregon's future climate may exacerbate fish passage problems and perhaps threaten the very existence of some native migratory fish species. It is therefore the intent of these rules to promote providing fish passage, or mitigation measures that provide greater net-benefit, while recognizing and minimizing burdens placed on the owners and/or operators of artificial obstructions. Definitions (-0005; New) "Appreciable benefit" means that fish passage at an Artificial Obstruction would provide fish with access to existing habitat of the type, duration, frequency, quality, and quantity needed to support healthy populations of one or more life history stages of those native migratory fish that are present downstream of Artificial Obstruction at the time of the exemption request. Definitions (-0005 (b)(A)); Line 22 and 23 "Major replacement" denotes a majority (i.e., more than 50 percent). The volumetric threshold for excavation or replacement of dams and diversions should be brought in line with the other facility types that require over 50 percent to meet this definition. In consideration of the change above, structure volume would be inclusive of the entirety of the Artificial Obstruction, including any earthen embankments, and not just the concrete portion of the obstruction. Definitions (-0005 (b)(A)(i)); Line 24 and 25 Insert between (i) and (ii) the following: (ii) The major replacement is for the purpose of addressing dam safety deficiencies and does not increase operating storage or diversion capacity. Modifications that are for dam safety and/or to increase reservoir storage solely to address high runoff conditions and protection of downstream resources should be exempt from this requirement. For example, the Federal Energy Regulatory Commission (FERC) may require an increase in dam height to help pass a Probable Maximum Flood (PMF), however that newly gained storage would not be part of normal operations, and would only be used during a PMF event. Definitions (-0005 (18)); Line 75 Suggest striking "with minimal stress" as it is a subjective term and there is a better criterion below (physiological injury). Definitions (-0005 (21)); Lines 84-85 Suggest the following edit: "...flow into the waterway downstream of an artificial obstruction tailrace and where upstream..." Definitions (-0005 (24)); Line 91 "Impoundment" or "reservoir" are more appropriate terms than "Forebay". A forebay is generally something else entirely in hydropower: temporary storage basin upstream of an intake chamber (i.e., penstock). Definitions (-0005 (25)); Lines 92-96 Text should be revised so that adding new hydroelectric generation to existing dams and using the stream flow release as a non-consumptive use (e.g., hydro generation) does not trigger construction of fish passage. Suggested text: "...conditions on the applicant, where the proposed action creates a new Artificial Obstruction or increases the severity of an existing Artificial Obstruction including but not limited to licensing, relicensing, reauthorization or the granting of new water rights that affect availability of instream flows downstream of the artificial obstruction..." Definitions (-0005 (32)); Line 109-112 The rules need to be able to distinguish diadromous migrations, more specifically anadromy, from other life history strategies. Fish movements are biologically distinct from migration and should be represented as such in the rules. Consider adding a definition of "migration" to include a persistent, undistracted and straightened-out movement, achieved through the fish's locomotory means or by actively seeking a transport medium (e.g., water currents), during which individuals remain undistracted by the resources they might find during migration by temporarily inhibiting 'station-keeping responses' (i.e., residency) and that might be repeated later in life (adapted from Dingle 1996 in Morais and Daverat 2016). This definition would impact 635-412-0025 (2) and discussion of relative value of anadromous benefit versus resident species benefits in a net benefit analysis. Alternately consider adding "obligated" to the definition so as to read "... native fish and their life stages.....that are obligated to migrate...." Definitions (-0005 (41)); Line 163 Suggested text: "...of an

instream structure discharging flow to a receiving water body.” Prioritization (-0015 (2)); Line 225 To be consistent with ODFW’s climate change policy, document should recognize that certain watersheds may need to be prioritized above others because of water availability and water temperature of a changing climate. Suggest the following edit: “The priority list shall be based on the current and future the needs of native migratory fish.” Prioritization (-0015 (2)(a)(A)); Line 228 Same edit as above: “The quantity of current and future native migratory fish habitat which is inaccessible.” Prioritization (-0015 (2)(a)(B)); Line 229 Need consistency with ODFW’s climate change policy and needed focus on science-based risk decision. Edit: The current and future quality of native migratory fish habitat which is inaccessible, after incorporating best available science regarding likely impacts of climate change on the habitat. Prioritization (-0015 (2)(b)); Lines 237-238 Within this section need to add that the relative position of an artificial obstruction on the priority list shall not be used as a basis for approving or denying waivers. Prioritization (-0015 (2)(c)); Lines 239-240 Propose striking (c) as making the priority list contain one artificial obstruction per sub-basin is arbitrary. In order to be effective, the Priority list should be statewide. Fish Passage Approval (-0020); New The addition of hydro generation to an existing dam provides a unique and positive step towards addressing climate change. The proponent of adding hydropower to an existing dam should not be required to address fish passage issues unless the new generation facility directly impacts fish passage (e.g., downstream fish passage through turbines). Propose addition to this section: “Project proponents who are neither the owner or the operator of an artificial obstruction but propose facilities, including renewable energy generating facilities ancillary to an artificial obstruction, are not subject to the fish passage requirements of this section provided such ancillary operation does not conflict with native fish migration.” Fish Passage Approval (-0020 (1)); Lines 264-265 Juvenile fish do not “migrate” upstream for a life cycle purpose. Edit: “.....providing passage for native migratory fish per life cycle requirements.” Fish Passage Waivers and Exemptions (-0025 (2)); Lines 320-324 A discussion of the relative value of anadromous species benefits versus resident species benefits should be provided here or elsewhere. This analysis needs to consider all benefits to fish from the proposed action including water quality, water quantity, habitat, predator reduction, denial of passing non-native species, etc. For example, adding generation to an existing dam and thereby increasing DO downstream of the dam should be a counted as benefit to fish. The net benefit analysis should consider both current and future (climate change) conditions. Fish Passage Waivers and Exemptions (-0025 (4)); Lines 328-333 Insert these or similar revised statements as subordinates under (4): (x) Climate change negatively impacts the future quality and quantity of fish passage (e.g., where current habitat suitability has been deemed “marginal” upstream of barrier); (y) The exemption aligns with renewable energy policy and ODFW climate and ocean change policy OAR 635-900-0001 to 0020, including provisions for an exemption for fish passage when installing a hydropower unit at an existing artificial obstruction that is not subject to the state’s fish passage OAR (federal ownership) or when hydropower was not an original authorization for the artificial obstruction. Fish Passage Waivers and Exemptions (-0025 (8)); Lines 343-347 All proposed mitigation measures should be considered in the benefits analysis. Typically, mitigation packages address a variety of environmental impacts and provide integrated benefits across resource areas. Values of mitigation measures should not be individually assigned or credited to a single resource. For example, improving dissolved oxygen benefits water quality and the resources (in particular, fish) dependent on that environment. Edit: “.....whether the waiver request meets the requirements of subsection (1) or the exemption request meets the requirements of subsections (4) and (5), including any biological benefits resulting from conditions of a Clean Water Act Section 401 water quality certification.” Fish Passage Criteria (-0035 (11)(b)); Lines 654-

659 The statement "If at any time an experimental fish passage structure is deemed by the Department in writing to not provide fish passage..." seems very subjective. Statement would benefit from identification of reasonable standards that can be referenced and measured. At the end of (11)(b) need to remove "but no later than the end of the next complete in-water work period after notification by the Department." In most cases this is not feasible or reasonable, and the earlier text "shall be installed as soon as practicable" drives the timing of construction. Mitigation Criteria (-0040 (2)(b)); Line 682 Edit: Restoration or enhancement of native migratory fish habitat that fulfills obligate requirements of a migratory life-stage; Mitigation Criteria (-0040 (3)); Lines 686-688 As noted in a previous comment, all proposed mitigation measures should be considered. Edit: Mitigation shall not include may include any activity that is a requirement or condition of any other agreement, law, permit, or authorization except if the activity results from a judicial proceeding or settlement to address violations in state or federal law. if it is also for fish passage mitigation of the same action at the artificial obstruction for a different level of government. Mitigation Criteria (-0040 (9)(c)); Line 705 To provide the greatest opportunity for mitigation value, revise text to: "Shall benefit the same native fish species affected at the artificial obstruction or provide greater relative benefit to migratory (e.g., anadromous), endangered, and/or threatened species not affected at the artificial obstruction than to those non-migratory, non-endangered, or non-threatened species affected at the artificial obstruction. " 2021-05-04 14:06:40

43 49 Corvallis 685-412-0010(2) lines 188-189 "This rule change is important because it will guarantee the fishing industry representation in matters regarding fish passage. The way that the rule is currently worded does not require fishing to be represented, but suggests it. Considering that the fish passage rules have the potential to significantly impact this industry, they should be required to have a presence on this task force." The composition of the Fish Passage Task Force should be required to have a minimum of one representative from the fishing industry. 2021-05-05 12:46:49

44 50 Corvallis 635-412-0010(2) lines 187-189 "This rule change is important, because there is not currently a requirement for tribal representation on the Fish Passage Task Force. Fish are historically a significant cultural, spiritual and economic resource for Oregon's indigenous tribes. These rules have the potential to impact their land management practices and their input on matters under the jurisdiction of the Fish Passage Task Force should not be optional." 635-412-0010(2) line 189 One member of the general public should be a tribal member. 2021-05-05 12:55:45

45 51 Corvallis 635-412-0020(1) lines 264-265 "This rule change is important because it corrects a disturbing lack of common sense while creating provision for natural events, which is not found in the current rule. Given that the word ""historically"" (defined in 635-412-0005(27) line 99) refers to all time pre-Oregon statehood, this rule is broad beyond reasonable limits. It assumes that all artificial obstruction in historical native migratory fish habitat is a product of human involvement after the arbitrary year of 1859. It ignores the potential for natural events to alter native migratory fish habitat and their usage patterns. It also does not require that current scientific information, data, or knowledge is used when determining native migratory fish habitat; rather, the idea that migratory native fish have used it a minimum of 162 years ago. Requiring all of the historically-inhabited native migratory fish waters to comply with this rule may cause an increased financial burden for the State, private companies and individuals, and tribes without a real benefit to fish populations.""635-412-0020(1) line 264 Historically inhabited waters of the state that have been made not passable or uninhabited due to natural, non-anthropogenic events such as landslides or earthquakes should be exempted from providing passage for native migratory fish. " 2021-05-05 13:39:57



46 52 Bend "I would like to fish passage provided and maintained at all dams, and other obstructions to fish passage should be removed. We need connectivity in the river to restore genetic interchange and provide cool water refugia. In Bend, I would like to see the Newport Avenue Dam removed and the river be either free-flowing or have a partial rock dam maintaining some of Mirror Pond along with river flow and fish passage. If that dam is to stay, fish passage has to be restored and required." To restore aquatic ecosystems. "Fish passage must be provided and maintained at all dams, and other obstructions to fish passage be removed." 2021-05-05 21:24:43

47 53 BEND 635-412-0005 (9) (b) (A) "The upper Deschutes used to be one of the premier fisheries in the northwest. Many groups and agencies are spending large amounts of time and money to renovate the habitat and flows. A major problem is the last remaining barrier to fish passage which is the Bend Hydro project that creates Mirror Pond. PacificCorps is the owner of the dam. It was built in 1910 and up until 1960 was required to have passage. In 1960, the passage was disfunctional and they told the department they were going to rebuild the dam and put in new passage, they have done neither. Instead rebuilding the dam, in recent years they have undertaken modifications staged in different years so as not to trigger the 30% rule which would require they provide passage. The rule cited above should include the word cumulative. the part of the rule that defines the trigger as being 30% of structure volume needs further definition. It should include 30% of dam length as well. the dam mentioned above had its entire face replaced by sheet piles yet it didn't trigger the rule because of the volume of the timber crib which the sheet pile protected was quite large. ODFW should have the discretion to use length as well as volume to make a determination that significant repairs were done which triggered the need for passage. " "A. as for dams and diversions, cumulative excavation or replacement of 30 per cent by structure volume or 30% of dam length. " 2021-05-06 07:36:39

48 54 BEND "When selecting which dams are highest on the fish passage priority list factors such as the cost or ease of providing passage should be considered. In the Deschutes Basin, Bowman Dam has the highest rating. The cost of providing passage there is very expensive and difficult. providing passage at the Mirror Pond would be significantly less and yet provide a huge benefit to the fishery. Wild native fish should have the same priority as anadromous fish. " 2021-05-06 07:42:56

49 55 "Boise, ID - Halfway, OR" Idaho Power Company "635-412-0035—Fish Passage Criteria Lines 427 through 436. Specifically, criteria pertaining to water velocity (2 ft/sec) and water surface elevation differential (6 inches). " "There is a need for criteria specific to Nature-Like Fish Passage projects. Much of the existing criteria is intended for concrete fishways and is not applicable to instream projects intended to pass native fish around or through projects such as small irrigation diversions. Driving designs to meet velocity criteria near 2 ft/sec at 5% exceedance flows results in grades that cannot pass bedload and maintain design intent long-term. Nature-like passage criteria should focus on the native stream channel grade, velocities, and roughness upstream and downstream of the project area. Matching native stream channel conditions, provided the grade meets passable criteria (<5%) ensures the project can pass bedload and maintain itself at higher velocities. The water surface elevation of 6 inches results in projects that are difficult to maintain through natural bedload transport processes. A focus on matching native stream channel grade and roughness would ensure projects can maintain bedload transport processes. Nature-like fish passage designs, with embedded roughness boulders, can pass fish at elevation differences up to 9 inches. Concrete fishways, designed for resident fish (non-anadromous) have been shown to successfully pass trout species down to Age-1.

Expanding height differentials to 9 inches would allow nature-like passage projects a smaller footprint, ability to pass bedload, and still pass targeted native, migratory species. Water velocities in native stream channels (<5% grade) are much higher than existing velocity criteria. Nature-like criteria should focus on the stream simulation approach. ODFW review should focus on grade control and engineered matrices below bed that would ensure stability. If native stream channel conditions cannot be simulated, then the engineer of record should provide sufficient justification that the submitted design can pass native fish across the required flow ranges of 5-95% exceedance. " "Insert within section C, Line 478: section titled Nature-Like Fishway Criteria. a. Average water depth and velocities should simulate those in the native stream channel adjacent to nature-like passage structure. Depth and velocities should be compared at similar stream gradients between project area and adjacent, native stream channel. b. Grade control and engineered streambed through passage structure can be maintained through time. i. Grade sufficient to transport bedload through passage project area ii. Control and engineered streambed sufficient to not allow scour or head-cutting c. Substrate is similar in size and composition as adjacent stream channel i. Should contain over-sized boulders (sized at twice the diameter of the mean boulder size in project area), partially buried, to ensure velocity shadows for fish passage ii. Spacing of oversized rock should be close enough (minimum 2-foot gap) to allow velocity shadows throughout entire fish passage structure d. Maximum water surface elevation differential (non-anadromous species) should be no higher than 9 inches through fish passage structure. Differential closer to 9 inches should be mitigated with over-sized, embedded boulders to ensure conditions listed in C.(ii). above. " 2021-05-06 11:20:20

50 56 Portland The Conservation Angler The Conservation Angler will submit comments on the current draft rules in a separate email submission to ODFW staff. 2021-05-06 16:17:00

51 57 Portland Self NEW Introduction Section RAC members have suggested an introductory statement of policy and intent - This will help staff and policy makers interpret the OARs in a manner consistent with intent. The Ocean and Climate policy from ODFW is going to set a framework for prioritizing decisions; the fish passage rules should provide a framework for making pragmatic decisions "Support previous suggestions that the policy statements include ""Potential changes in Oregon's future climate may exacerbate fish passage problems and perhaps threaten the very existence of some native migratory fish species. It is therefore the intent of these rules to promote providing fish passage, or mitigation measures that provide greater net-benefit, while recognizing and minimizing burdens placed on the owners and/or operators of artificial obstructions."" 2021-05-07 07:40:21

52 58 Coquille/Coos Bay "Coquille Watershed Association (Melaney Dunne), Coos Watershed Association (Ed Hughes)" "Lines 426-427: Fishway water velocities shall: Range between 1 and 2 feet per second in transport channels Lines 530-532: Tide gates and associated fish passage structures shall be a minimum of 4 feet wide and shall meet the requirements of OAR 635-412-0035(2) within the design streamflow range and for an average of at least 51% of tidal cycles, excluding periods when the channel is not passable under natural conditions. Lines 273 - 289: Approval of a fish passage plan Lines 148-149: Ordinary high water line Line 464: Water temperatures in fishway " "This comment is specific to structures located in tidally influenced streams and floodplains (tide gates and culverts). Overall, there are several rules that do not account for the hydrologic dynamics and juvenile salmonid movement behaviors uniquely observed at tide gates and associated structures compared to structures

in locations that are not tidally influenced. 1. Velocity Criteria and Culvert Sizing in Tidal Systems - Unlike culverts located in streams above of tidal influence where directional flow is consistently in a downstream direction, the velocity and directional flows change four times daily in tidal systems. This complexity in tidal systems is not accounted for in current rules. As such, some requirements that are solely focused on streams outside of tidal influence are challenging to meet in a tidal system structure (tide gate and culvert). The velocity criteria could be more realistic and achievable for tide gate owners if the threshold was changed. This change would still support the goal of fish passage at these structures based on observed directional travel of fish during tidal changes. The Oregon Watershed Enhancement Board (OWEB), technical advisors and a contractor are working to produce a "Pipe Sizing Tool" for tide gates in alignment with the Oregon Tide Gate Partnership. This tool is expected to provide a framework model that will be incorporated to determine the size of a culvert and tidegate for a given tidal location based on hydrologic parameters (velocity, gate time open). This tool will be critical in informing passage criteria however it is not yet complete and we recommend incorporating information from this tool into rule revisions pertaining to tide gate structures as the tool is finalized in 2021. Velocity is an important criteria on tide gates that impacts the cost of the structure. The cost of tide gates is directly related to the size of the infrastructure. Often the additional cost to reach a 2fps criteria in tidal locations is untenable for landowners with other sources of funding often being difficult to obtain. Time of door openness appears to be a more significant factor in supporting juvenile fish passage at tide gates and an emphasis on time open rather than velocity could help better meet passage goals and create less onerous requirements on replacements. Data on juvenile salmonid movement collected over years from multiple groups in OR and WA (ODFW, WFDW, NMFS, CoqWA) indicates that they readily move upstream through tide gates on incoming tidal flows at velocities exceeding 2fps or during periods of slack tides. Therefore, valuing time openness over velocity may help optimally meet fish passage goals at tide gates and reduce the thresholds of criteria needing to be met by tide gate owners.

2. Water Management Plans in Tidal Systems - Water management plans are a routine requirement in fish passage approval for tide gates. However, current rules do not specify this requirement. A definition of water management plan, specifying when it is required for a structure, and species specific needs that drive plan components (e.g. juvenile coho use of off-channel sites in winter months for rearing) would be helpful to specify to ensure stakeholders have a clear understanding of what is required. Enough flexibility in the rules/guidance is also critical as site specific characteristics such as salinity level, tidal range, reservoir capacity, and groundwater influence can greatly affect the scope of a specific water management plan. Lastly, water management plans are typically also required by NMFS, ideally ensuring that water management plan requirements are compatible with both state and federal agencies is key to ensure stakeholders can meet all fish passage requirements in a streamlined manner." "Note, some recommendations below may be better suited to be included in guidance than rule, however we opted to include the full scope of recommendations based on experience working on tide gate replacements with engineers, landowners, and agencies. Lines 426-427, 530-532, 273-289. Overall, fish passage at tide gates is impacted by the inter-related factors of time of door openness, velocity, and upstream reservoir capacity. It is important to recognize that the flow capability (culvert size/channel size) and upstream reservoir capacity (volume) has a significant influence on the time of door openness - this dynamic needs to be considered in designs and fish passage/water management plans. Velocity criteria should be different for tidal structures, with a higher velocity threshold in place. This is especially the case if the tide gate has capabilities to remain open for longer during incoming tides (e.g. sluice gate or MTR technology). Fish behavior monitoring is showing that native migratory fish readily move

directionally with tidal flow and are not obligatorily linked to swimming against current to enter upstream estuarine habitats. Therefore, higher criteria levels will not obstruct meeting fish passage goals when velocity drops during tide changes and it will help streamline replacements for landowners /municipalities (especially when the tide gate has technology that allows it to stay open longer during rising tides and a water management plan is in place). Specifying the level of designs and hydrologic tools required to properly size a tide gate is key to set expectations on what metrics need to be used (e.g. pool capacity upstream/channel volume) and what tools are acceptable to use (e.g. new pipe sizing tool, existing models, etc.). Having requirements for tools and metrics that are used to inform the fish passage plan/water management plan that are scalable in nature is key as some smaller sites may not be feasible to fully engineer (from a cost/benefit perspective) compared to large structures (depending on fish use of habitats in the area). Overall, clear guidance on acceptable methods will ensure stakeholder meet expectations in a streamlined, cost effective manner. Specifying what styles of gate are acceptable and when certain features would be required (e.g. some type of feature that prolongs gate openness such as a sluice style gate or mechanical MTR) is key for stakeholders to understand. At the same time, allowing for maximum flexibility to accommodate a variety of gate styles is also key as site characteristics, available fish habitat upstream and landowner goals can influence the site's fish passage needs. Line 464: Often tide gated locations cannot meet this temperature criteria. It would be preferred to have an accommodation specified for tide gates that acknowledges the realities of water temperature regimes at tide gates. Especially for summer water temperatures, we have observed that there are often differences of more than a degree (~5 degrees of difference) in upstream and downstream temperatures at tide gated locations. Depending on the site, the interior water temperature may be warmer or cooler than the exterior tidally influenced waters. Lines 148-149: For tidal zone structures using "MHHW" Mean Higher High Water, defined by NOAA as: "The average of the higher high-water height of each tidal day observed over the National Tidal Datum Epoch. For stations with shorter series, comparison of simultaneous observations with a control tide station is made in order to derive the equivalent datum of the National Tidal Datum Epoch." Adding this and applying this definition for tidal areas would be a clearer definition for stakeholders to use in tidal areas rather than the Ordinary High Water Line definition. " 2021-05-07 07:41:13

53 59 Coquille/Coos Bay "Coquille Watershed Association (Melaney Dunne), Coos Watershed Association (Ed Hughes) " 207 - The Task Force Shall: (h) Perform such other duties relating to fish passage as requested by the Director or Commission; "Adaptive Management of Rules and Guidance - New information from research on fish passage is continuously being generated by agencies, watershed councils, universities, etc. Current rules include no specification on how new, scientifically vetted information will be incorporated into rules and the fish passage guidance manual as an adaptive management/continuous improvement practice. A key example of this is the current and forthcoming fish passage data on juvenile salmonid movement in tidal systems that have new tide gates installed. This research is producing key findings on movement behaviors that could be considered to enhance rules and/or guidance on tide gate design, operations, and water management that ensures fish passage goals are met in tidal systems. This review and adaptive management practice would also serve to ensure that fish passage goals can be optimally met while also s " "We recommend an additional rule that the task force sets a scheduled, regular review (e.g. every 5 years) of current rules and guidance to allow for adaptive management/continuous improvement based on new information and technology. Ideally the goal and purpose of this review would be to ensure the optimization of fish

passage at structures and to continue to identify how to promote compatibility of fish passage rules with landowner goals and needs. " 2021-05-07 07:42:30

54 60 Coquille / Coos Bay "Coquille Watershed Association (Melaney Dunne), Coos Watershed Association (Ed Hughes) " Line 2 - Definitions A definition for what abandonment means is key to ensure all stakeholders are clear on this potential trigger event. Abandonment may be interpreted differently by a stakeholder compared to what the agency's perspective is. In the definitions section include a definition of abandonment. 2021-05-07 07:43:34

55 61 Portland Definitions (-005; new) "-0025 (4)(c) uses the term appreciable benefits to denote a key criteria for granting or denying waivers, but this is not defined" "'Appreciable benefit'" means that fish passage at an Artificial Obstruction would provide fish with access to existing habitat of the type, duration, frequency, quality, and quantity needed to support healthy populations of one or more life history stages of those native migratory fish that are present downstream of Artificial Obstruction at the time of the exemption request" 2021-05-07 07:44:28

56 62 Coquille/ Coos Bay "Coquille Watershed Association (Melaney Dunne), Coos Watershed Association (Ed Hughes) " 638-670: Experimental fish passage "Current requirements for Experimental Fish passage structure are onerous and do not incentivize innovation and improvements. Particularly the 5 year study period is prohibitive to fund for an NGO, business or landowner. It can be difficult to identify funding to support experimentation yet key innovations are needed to continue to promote fish passage goals and the productivity of working lands / urban areas. A clear example of innovations needed are in tide gate technology to meet growing demand and the diversity of conditions observed in tidal areas. " 638-670: Experimental fish passage Reducing the 5 year monitoring period would make it more feasible to implement experimental structures. If the ODFW fish passage compensation fund could be used to support innovations in the field that would be ideal to incentivize design upgrades and/or new designs. 2021-05-07 07:45:31

57 63 Coquille / Coos Bay "Coquille Watershed Association (Melaney Dunne), Coos Watershed Association (Ed Hughes) " Line 242-243 - Prioritization "'(e) The Department shall re-evaluate the priority list with the most recent information after enforcement occurs at 242 five priority artificial obstructions or as directed by the Commission.'" The current wording implies that fish passage barriers/priorities are only addressed via enforcement. This is not accurate as often there are many willing landowners on the priority list that are eager to address a barrier in partnership with a local organization such as a watershed council or ODFW directly. Therefore, amending the wording to be inclusive of both situations (enforcement and willingness to upgrade a structure) indicates that not all barriers are regulated through an enforcement action, some can be addressed willingly prior to enforcement being needed. " Change wording to the following: "(e) The Department shall re-evaluate the priority list with the most recent information after FISH PASSAGE IMPROVEMENT occurs at five priority artificial obstructions or as directed by the Commission.'" 2021-05-07 07:46:42

58 64 Portland Definitions (-0005 (18)); Line 75 "Suggest striking "with minimal stress" as it is a subjective term, using criterion of physiological injury" Strike 2021-05-07 07:48:10

59 65 Coquille/ Coos Bay "Coquille Watershed Association (Melaney Dunne), Coos Watershed Association (Ed Hughes)" "Lines 404-405 Fish Passage Criteria C (also see line 529, 558): "Dates of the year and/or conditions when passage shall be provided" " Additional specification on this

criteria would be key to ensure stakeholders have a clear understanding of requirements. If minimum thresholds that are regionally established could be defined in the guidance to supplement this rule that would provide additional clarity. This is also aligned with another comment submitted by CoosWA/CoqWA regarding specification on additional information/requirements on water management plans in tidal systems. "Either in the rules or the associated fish passage guidance, providing additional information on the dates of the year and/or conditions when passage is needed for the life history stages and native migratory fish. Additional clarification on dates, specific life history stages, etc. that is regional or habitat specific would assist stakeholders in planning and implementing barrier replacements. " 2021-05-07 07:49:03

60 66 Portland Definitions (-0005 (25)); Lines 92-97 "In order to address climate change, its important to not close the door on opportunities to add new hydropower to non-power dams, if doing so does not negatively impact fish passage. Text should be revised so that adding new hydroelectric generation to existing dams and using the existing stream flow release as a non-consumptive use (e.g., hydro generation) does not trigger construction of fish passage."

""Fundamental change in permit status"" means a change in regulatory approval for the operation of an artificial obstruction where the regulatory agency 1) has discretion to impose additional conditions on the applicant, and 2) where the proposed action creates a new Artificial obstruction or increases the severity of an existing Artificial obstruction including but not limited to licensing, relicensing, reauthorization or the granting of new water rights that affect availability of instream flows, but not including water right transfers or routine maintenance permits unless they involve construction or abandonment of an Artificial obstruction " 2021-05-07 07:54:46

61 67 Portland Definitions (-0005 (32)); Line 109-112 "The rules need to be able to distinguish diadromous migrations, more specifically anadromy, from other life history strategies. Fish movements are biologically distinct from migration and should be represented as such in the rules; otherwise there is risk that the fish passage may be required when there is not biological imperative for the fish to migrate. " "Line 110-111: replace.... :that migrate for their life cycle needs"" with ""that are obligated to migrate for their specific life cycle needs""." 2021-05-07 08:01:07

62 68 Portland Prioritization (-0015 (2)); Line 225 "To address climate change, certain watersheds may need to be prioritized above others because of water availability and water temperature of a changing climate. In general, statements about current and future conditions should be strategically located throughout document in recognition that we may be playing defense for a while...." Prioritization (-0015 (2)); Line 225 "The priority list shall be based on the current and future the needs of native migratory fish." 2021-05-07 08:04:42

63 69 Portland Prioritization (-0015 (2)(a)(B)); Line 229 Critical that ODFW incorporates best available science and forecasting tools to make science based risk decisions. This may mean hard choices. "Replace line 229 with ""The current and future quality of native migratory fish habitat which is inaccessible, after incorporating best available science regarding likely impacts of climate change on the habitat."" " 2021-05-07 08:12:41

64 70 Portland Fish Passage Approval (-0020); New "The addition of hydro generation to an existing dam provides a unique and positive step towards addressing climate change. The proponent of adding hydropower to an existing dam should not be required to address fish passage

issues unless the new generation facility directly impacts fish passage (e.g., downstream fish passage through turbines)." "NEW: "Project proponents who are neither the owner or the operator of an artificial obstruction but propose facilities, including renewable energy generating facilities ancillary to an artificial obstruction, are not subject to the fish passage requirements of this section provided such ancillary operation does not conflict with native fish migration."" 2021-05-07 08:14:43

65 71 Portland Fish Passage Approval (-0020 (1)); Lines 264-265"As currently written, fish passage is required even where the AO does not inhibit a life-cycle requirement (example: juvenile fish don't migrate upstream for life cycle purposes). " edit 264-265 as follows: ".....providing passage for native migratory fish as may be needed to meet life cycle requirements." 2021-05-07 08:28:09

66 72 Portland Fish Passage Waivers and Exemptions (-0025 (2)); Lines 323-327 here is an opportunity to clarify the benefits of the OARs to anadromous versus resident species and should also look forward to future conditions anticipated as a result of climate change -- these may vary depending on the watershed. "Fish Passage Waivers and Exemptions (-0025 (2)); Lines 323-327 To qualify for a waiver of the requirement to install fish passage, mitigation shall result in a benefit to fish greater than that provided by the artificial obstruction with fish passage, after considering all benefits from the proposed action. The net benefit analysis will consider conditions that exist at the time of the comparison, as well as future climate-induced conditions. " 2021-05-07 08:40:03

67 73 Portland Fish Passage Waivers and Exemptions (-0025 (4)); Lines 331-335 these are important to align exemption conditions with intend of Climate and Ocean policy "Fish Passage Waivers and Exemptions (-0025 (4)); Lines 331-335 Insert these or similar revised statements as subordinates under (4): (x) Climate change negatively impacts the future quality and quantity of fish passage (e.g., where current habitat suitability has been deemed "marginal" upstream of barrier); (y) The exemption aligns with renewable energy policy and ODFW climate and ocean change policy OAR 635-900-0001 to 0020, including provisions for an exemption for fish passage when installing a hydropower unit at an existing artificial obstruction that is not subject to the state's fish passage OAR (federal ownership) or when hydropower was not an original authorization for the artificial obstruction. [note - alternatively this last clause could reference earlier suggested insert under -0020 wherein it was suggested that "Project proponents who are neither the owner or the operator of an artificial obstruction but propose facilities, including renewable energy generating facilities ancillary to an artificial obstruction, are not subject to the fish passage requirements of this section provided such ancillary operation does not conflict with native fish migration."" 2021-05-07 08:45:36

68 74 Portland Mitigation Criteria (-0040 (3)); Lines 686-688 "As noted in a previous comment, all proposed mitigation measures should be considered - we see nothing in statute that prohibits considering mitigation that is required as result of a permit condition (or anticipated permit condition). To exclude these is arbitrary and could lead to gamesmanship -- for example requiring habitat-related measures as a mandatory condition under Section 401 certification would nullify an applicant's proposal. A benefit is benefit and should be counted as such - this is consistent with how Federal action agencies consider developmental benefits of a proposed action. "

"Mitigation Criteria (-0040 (3)); Lines 686-688 Mitigation shall may include any activity that is a requirement or condition of any other agreement, law, permit, or authorization except if the activity

results from a judicial proceeding or settlement to address violations in state or federal law. " 2021-05-07 08:53:25

69 75 Portland Mitigation Criteria (-0040 (9)(c)); Line 705 Important to maximize mitigation opportunities "Mitigation Criteria (-0040 (9)(c)); Line 705 revise text to: "Shall benefit the same native fish species affected at the artificial obstruction or provide greater relative benefit to migratory (e.g., anadromous), endangered, and/or threatened species not affected at the artificial obstruction than to those non-migratory, non-endangered, or non-threatened species affected at the artificial obstruction." 2021-05-07 08:55:27

70 76 Portland Fish Passage Criteria (-0035 (11)(b)); Lines 658-663 "The statement "If at any time an experimental fish passage structure is deemed by the Department in writing to not provide fish passage..." seems very subjective. Statement would benefit from identification of reasonable standards that can be referenced and measured. Recognizing that these standards may be unknown a priori, they should be identified on a case-by-case basis when installation is authorized. Perhaps referencing ""safe, timely, effective"" would be a placeholder with specific measurable objectives to be specified? Additionally, the requirement to modify or install a new facility ""in any case no later than the end of the complete in-water work period"" is arbitrary and unrealistic - we all know how long these designs can take if there is any complexity -- and the fact that we are resorting to experimental designs probably is a good indicator of complexity. Suggest requiring a plan and schedule for installation/modifications that ODFW would approve. ""Fish Passage Criteria (-0035 (11)(b)); Lines 658-663 If at any time an experimental fish passage structure is determined by the department to not meet the measurable criteria for fish passage set forth in the approval process for authorizing installation of the structure the owner or operator, in consultation with the Department, shall make such modifications to the structure or operation as are necessary to provide fish passage, and, after a reasonable period, if modifications are deemed by the Department in writing to meet the measurable criteria for fish passage, a plan and schedule for providing such passage shall be submitted to the department for approval"" 2021-05-07 09:15:13

71 77 Oregon City Native Fish Society Fish Passage OARs (comments on suggestions below) "Fish passage at artificial obstructions is critical to the conservation and recovery of Oregon's native, migratory fish populations. This is made even more important given the information we have and are gaining on the impacts of climate change on the range, distribution, and life-history requirements of species. We urge the advisory committee to consider changes which: 1) Adhere to statute; 2) Align with existing departmental policies, specifically the Native Fish Conservation Policy and Climate and Ocean Change Policy; 3) Have a high level of specificity to provide direction for the task force and clarity for stakeholders." "Thank you for the opportunity to comment. Please reach out if you have any questions or need clarification. If it would be helpful, subsequent comments could be added as track changes. The following comments reference the "Working RAC DRAFT" document: Support adding "Policy and Intent" to clarify the intent of statute and integration of the Climate and Ocean Change Policy. Recommend referencing both the authorizing ORS and OARs including Climate and Ocean Change Policy and Native Fish Conservation Policy. Line 5: delete "Potential" and "may." The Climate and Ocean Change Policy makes clear that there will be changes in Oregon's future climate. Utilizing "Potential" and "may" imply uncertainty which is not consistent with the climate policy language. Line 7-8: statute does not provide discretion for "recognizing and minimizing burdens placed on the owners and/or operators of artificial obstructions." Remove language. Suggest reframing to: "It is therefore the intent



of these rules to promote fish passage to conserve and recover the native, migratory fish of the state consistent with the goals of the Native Fish Conservation Plan and Climate and Ocean Change Policy.”

Line 27: support addition of “has the potential to preclude, delay, or prevent...” This recognizes that native migratory fish could be impacted even if they are not currently present at the obstruction. Line 68: “within, below or above the channel” may narrow the trigger application. Wording should consider how to incorporate any component contributing to an artificial obstruction including those which are outside the channel itself. Lines 223-225: Support adding a definition of trigger event, but current wording is confusing. Recommend refining to ensure clarity. Lines 248-250: Support cleaning up language of task force terms. Lines 283-285: The priority list should include all artificial obstructions whether or not there is an existing legal agreement to waive or other requirement to address passage. The priority list can indicate these aspects, but providing a comprehensive list of passage issues can help focus and drive investments to those basins in other ways (like habitat restoration projects, flow augmentation agreements, etc.) Line 278-279: Integrate consideration of climate change impacts/needs utilizing the best available information in the factors for consideration in prioritization. Suggested wording: “Anticipated range shifts, local extirpations, altered species compositions, and elevated life-stage vulnerabilities in response to climate change of native migratory fish.” (This wording reflects the language found in OAR 635–900– 0017(2)). Lines 300-301: Add “at least” so as to read “The priority list shall contain at least one artificial obstruction per Oregon sub-basin...” Statute does not specify the number or geography of artificial obstructions on the priority list. Amending to include “at least one” provides the department the opportunity to focus on areas where populations have the greatest biological need for passage if multiple barriers in a subbasin are the major factors limiting conservation and recovery goals. Obstructions can still be prioritized within the subbasin as well. Line 307: In statute, only the Commission may order construction/installation of passage. Line 311: Remove; no mention in statute and creates confusion. What does the owner or operator have to work cooperatively with the department on? What qualifies as reasonable cooperation? Lines 307-325 are not wholly consistent with statute at present. The Commission has authority to also require fish passage even if the artificial obstruction is not on the priority list. Suggest creation of new section to better align with ORS 509.625, Suggestions for alignment include: Suggest amending the “prioritization” section (starting at line 280) and retitle: Prioritization and authority to require passage construction or remove obstruction. Suggest including the following to better align with statute: (#)The commission may order the owner and/or operator of an artificial obstruction to install, improve, rebuild or mitigate fish passage within a defined timeframe if: (a) An emergency exists and the department has field verified the information used to make the emergency determination; (b) The artificial obstruction has existing fish passage, whether previously approved or not, that is now useless or inadequate for the purposes for which it is intended, though such construction may not interfere with the prime purpose of the artificial obstruction; or (c) The artificial obstruction is on the priority list and the Department can arrange for non-owner or non-operator funding of at least 60 percent of the cost for fish passage design, construction, and installation (##) Notwithstanding paragraph (#)(c) of this subsection, the commission may order installation of fish passage or alternatives to fish passage without regard to funding sources if: (a) The person owning or operating the artificial obstruction is already subject to an obligation to install fish passage or to provide alternatives to fish passage; (b) If the commission declares an emergency; or (c) If the person owning or operating the artificial obstruction has not been issued a water right or if the artificial obstruction has been otherwise unlawfully installed. +Add to definitions section the meaning of “Emergency.” Suggestion: “Emergency means a high likelihood that a native

migratory fish population will go extinct or be extirpated from the basin if passage is not provided at an artificial obstruction.” The following comments reference the existing OARs provided by hyperlink on the comment form: Lines 6-8: Include environmental impediments such as water temperatures, reservoir pools, low flows, or flushing flows resulting from “any dam, diversion, dike, berm levee, tide or flood gate, road, culvert of other human-made device...” in the definition of “Artificial obstruction” Line 22: add “cumulative” so as to read: “for dams and diversions, cumulative excavation or replacement of 30 percent...” This provides consistency with other obstruction types while rectifying a problematic loophole that has resulted in the piecemeal repair and maintenance of numerous projects that have resulted in sustained impacts to native fish and aquatic ecosystems. “Fish Passage Approval” section: Integrate consideration of climate change impacts/needs utilizing the best available information in the factors for consideration in fish passage approval. Lines 266-269 suggested wording: “Prior to construction... shall obtain a determination from the Department as to whether native migratory fish are or were historically present in the waters or are anticipated to utilize the waters due to climate change-induced range shift of native migratory fish.” Line 333: define “appreciable benefit” " 2021-05-07 16:42:25

72 78 "Coos Bay, Oregon" "Myself as an owner, operator, installer, maintainer, project manager, and involved in the design and implementation of tide gates/culverts as well as a land manager in tidal waters for over fifty years." "Lines 426-427: Fish way water velocities shall: Range between 1 and 2 feet per second in transport channels Lines 530-532: Tide gates and associated fish passage structures shall be a minimum of 4 feet wide and shall meet the requirements of OAR 635-412-0035(2) within the design stream flow range and for an average of at least 51% of tidal cycles, excluding periods when the channel is not passable under natural conditions. Lines 273 - 289: Approval of a fish passage plan Lines 148-149: Ordinary high water line Line 464: Water temperatures in fishway" There is great need to simplify the process and improve the effectiveness of limited resources to address failing tide gates/culverts and the related interior infrastructure issues associated with these water control systems in tidal influenced areas.. I endorse and support the comments submitted by the Coquille and Coos Watershed Associations 2021-05-07 21:07:20

73 79 "Coos Bay, Oregon" Lines 273 - 289: Approval of a fish passage plan On projects utilizing Muted Tidal Regulator technology a water management plan needs to be implemented as part of the project requirements to ensure there is a facility to operate the project to design expectations with an adaptive management process included. More consideration needs to be given to low water management strategies in the WMP and less on high flow volumes since there is such a limited ability to effect high flows. in lines 273-289 add language to require WMP and adaptive management in systems utilizing MTR technology 2021-05-07 21:25:59

74 80 "Coos Bay, Oregon" Lines 525-532: "When considering tide gate/culverts in tidal areas with MTR technology and a water management plan gate time open trumps either velocity or culvert size. If the gate is closed there is no fish passage. At each tide change there is opportunity for fish passage at low or zero velocity with the gate opened. To maximize the effectiveness of the entire system including interior infrastructure that affects pool/reservoir capacity (culverts, tide gates, control structures, channels, ditches, and their cleaning and maintenance) needs to be considered. System capacity is the key to ensuring gate open times can be maximized." Lines 525-532: 2021-05-07 22:10:43

75 na CCFB 635-412-0005 (lines 25- 26) "Regarding artificial obstruction, this section detail dikes, berms, and levees as artificial obstructions. Dikes, berms, and levees were never included in the original legislation. This is an overreach of the fish passage regulations. CCFB recommends that reference to dikes, berms and levees be deleted from this section. " Email

76 na CCFB 635-412-0005 (9)(b) (lines 47 - 96) "Regarding the definition for Major Replacement, the regulation exceeds what major replacement is by defining 50% as a major replacement. It has also interpreted repairs as major replacements. For example, they have defined relining a culvert as a major replacement whereas this is actually just routine maintenance. CCFB recommends that the definition for major replacement to revised to correctly define what a major replacement is. " Email

77 na CCFB 635-412-0005(29) (lines 102 to 104) "This section defines "In Proximity" as defined by the Oregon Water Resources Department. The regulation needs to, use the definition of "In Proximity" as provided in the Statute (Oregon Revised Statute 509-580(5). CCFB recommends that the reference to the Oregon Water Resources Department be deleted. " Email

78 na CCFB 635-412-0005 (33) (lines 145 to 147) "This section of the Regulation defines "Net Benefit". "Net Benefit'1 means an increase in the overall, in proximity habitat quality or quantity that is biologically likely to lead to an increased number of native migratory fish after a development action and any subsequent mitigation measures have been completed. This definition is used in determination of granting a waiver from fish passage. The Fish Passage Task Force has incorrectly applied "Net Benefit" by its myopic view. In the definition of net benefit, in-proximity is included. In Proximity s defined in Oregon Revised Statute 509-580(5); it states ""In-proximity means within the same watershed or water basin and having the highest likelihood of benefiting the native migratory fish populations directly affected by an artificial obstruction'1• The Task Force focuses on each tide gate and does not consider the broader view when fish friendly tide gates are installed along the river, thus should provide for waivers for other properties in the area. Every single tide gate does not need to provide fish passage. Net Benefit Analysis performed by ODFW only look at specific artificial obstructions and not the other artificial obstructions that provide fish passage in the geographic area as "In-Proximity" requires. This can be seen time after time in Waiver request by ODOT where they will fix one culvert in another area to avoid removing the barrier in one area. CCFB recommends that ODFW Commission follow ORS 509-580(5) regarding the definition of "in-proximity" in evaluating the exemption of artificial obstructions without fish passage. Requiring fish passage tide gates on small farms and ranches do not "provide the highest likelihood of benefiting the native migratory fish population1'. We recommend that ODFW develop a willingness to work with farmers and ranchers on solutions and exemptions for artificial obstructions such as tide gates. " Email

79 na CCFB 635-412-0025 (4)(c) (lines 328 to 333) This section provides for granting of exemptions from fish passage requirements when there is no appreciable benefit. The lands drained by smaller tide gates are quite small and clearly there is no appreciable benefit to requiring fish passage for those smaller tide gates. We recommend that the regulation define "no appreciable benefit" as any tide gate that drains 500 acres or less. Email

80 na CCFB 635-412-0035 (4)(b) (lines 525 to 529) "This section of the regulation describes requirements for fish passage structures. Section 4(b) applies to tide gates, yet this

section also requires tide gates meet the criteria in OAR 635-412-0035 (2) and (3) which pertain to dams and other types of artificial structures. CCFB recommends that the reference to OAR 635-412-0035 (2) and (3) be deleted from this section." Email

81 na CCFB 635-412-0035 (11)(c) (lined 638 to 670) This section describes how alternative fish passage tide gates can get approved. It is unnecessarily complex. We recommend that this section be streamlined so that more affordable fish passage compliant tide gates can get approved. CCFB recommends that fish passage compliant tide gates of neighboring states be approved for Oregon. Email

82 na CCFB 635-412-0040 (2)(a) (lines 678 to 684) This section pertains to mitigation criteria. This section places an unreasonable burden on small farmers and ranchers who have had tide gates in place for over 100 years. CCFB recommends the mitigation requirements be waived for replacement of smaller tide gates where other fish passage compliant tide gates have been installed in the same area. Email

83 na Water Watch Line 6 To provide clarity and direction on review of future exemption requests. "Define "appreciable benefit" in a way that includes incremental progress toward restoration of access to historic habitat if there is a reasonable possibility of full restoration in the foreseeable future. The fish passage statutes require passage where native migratory fish were historically present, not just where they are currently present, and the requirement for passage based on historic presence is not limited to locations where fish can immediately use the passage or immediately gain access to historic habitat that is not presently used. Thus, the statutes imply that passage in locations of historic fish presence is an appreciable benefit even if it won't immediately expand use by native migratory fish. If an impassable barrier downstream, or an impassable barrier immediately upstream, always justify an exemption, there will be no progress toward restoration as one barrier justifies an exemption at another and the exempted barrier then justifies an exemption at the former. We understand exemptions may be revoked but wonder whether that is likely to occur (is there any history of revoked exemptions?). Keep in mind that this suggested definition would not require passage where it isn't justified on a cost-benefit basis. The owner of the obstruction could still seek a waiver in exchange for mitigation that provides a "net benefit." If the benefits from passage are in fact small, the mitigation would not be onerous and fish would receive at least something in exchange for the owner of the obstruction not providing passage at the trigger site."

84 na Water Watch Line 6 To recognize all types of obstructions within terms of statute. "Expressly include in the definition of "[a]rtificial obstruction" reservoir pools, low flows and high water temperatures caused by a "dam, diversion, culvert or other human-made device placed in the waters of this state." If such barriers are caused by the human-made devices, they should be sufficiently within the terms of the statute to address under the fish passage laws. "

85 na Water Watch Line 6 To clearly address passage barriers that may be unregulated. "Add to definition of "artificial obstruction": "including devices not intended to be permanent." Non-permanent structures (e.g., "push up dams" and some BDAs) can also interfere with fish migration and cause significant detrimental impacts to fish. Rules should clearly apply to them. (To avoid confusion, we suggest not using the term "temporary" because that's a defined term in the rules that's narrower than the concept suggested here.)"

- 86 na Water Watch Line 22 To address a potential loophole in triggering events for dams. "Clarify that percentage replacement can included cumulative work for all obstruction types (not just tidegates and floodgates). We suggest a 30 percent threshold for all obstructions on grounds that constitutes ""major replacement.""
- 87 na Water Watch Line 109 To make rules easier to review and understand. "Add definition of ""native fish"" (same as OAR 635-007-0501(36)) so people don't need to go find the cross-reference to understand the rules: "" 'Native fish' means indigenous to Oregon, not introduced. This includes both naturally produced and hatchery produced fish."" Do not narrow the range of species requiring passage (andromous, wild, salmonid, etc.). Statutes require passage for all ""native fish"" that migrate; Commission does not have authority to narrow the range of species for which the statutes require passage."
- 88 na Water Watch Line 161 To clarify types of streams covered. "Include ""ephemeral"" in definition of stream. Some may consider this different from ""intermittent,"" but both should be included if currently or historically used by native migratory fish."
- 89 na Water Watch Line 175 To clarify waters covered. "Include ""ephemeral"" streams in defintion - or just refer to ""streams"" since its been defined (along with other types of water bodies described), which may be better to ensure consistency. Some may consider different from ""intermittent"" but all should be covered if native migratory fish currently or historically present."
- 90 na Water Watch Line 687 To ensure consideration of an important factor for mitigation. "Add subsection similar to (3) to clarify mitigation shall not include any activity previously planned to be completed by the owner/operator or another person or entity. If the mitigation is something that would have been done independent of the waiver, it cannot be said to provide a ""net benefit"" to native migratory fish (since it would have been done anyway)."
- 91 na Water Watch Lines 688-89 "To provide more clarity, simplicity and consistency with meaning/purpose of mitigation to provide a ""net benefit."" "Delete or reword subsection (4). Current language is confusing. Why would someone be seeking a ""decision regarding a fish passage waiver"" if there is already a waiver for the site. If the intent is to say mitigation can't be something you already did, suggest phrasing that more clearly and include (as not qualifying) things that the owner/operator or a third party were already planning/likely to do."
- 92 na Water Watch Lines 710-11 To provide consistency with statutory language and intent and ensure consistency with surrounding subsections. Delete subsection (f). This subsection suggests the Department has an obligation to consider a waiver/mitigation based on a belief of the owner/operator as opposed to a specific request/application for a waiver as an alternative to passage.
- 93 na Water Watch Lines 712-13 To provide more clarity. "Delete or revise (g). Language is not clear. To the extent this says a net benefit determination may require the gathering of information, that seems clear without a rule saying that."
- 94 na Water Watch Lines 716-17 To provide more clarity and consistency with purpose and intent. "Delete or revise subsection (j). This seems to say: (a) mitigation in exchange for

passage waiver can use public funds from the Department; and (b) relative costs of passage v. mitigation can't be considered (i.e., no consideration of how the amount to be spent on mitigation would compare to the cost of passage). As to (a), this seems inconsistent with intent and with good public policy. An owner/operator required by law to provide passage or mitigation should not be able to use public funds to do that. Public funds should be saved for situations where the Department does not have enforcement authority. As to (b), a reasonable person would consider relative costs in determining if fish received a "net benefit." If providing passage would cost \$1,000,000 and the proposed mitigation will cost \$100, that seems like a relevant factor (though not decisive). Also, addressing a high-cost fish passage problem may provide more benefit than addressing a low-cost problem because the latter is more likely to be addressed independent of a fish passage waiver at another site. Also, we do not see a statutory basis to exclude relative cost as a consideration in determining if the mitigation provides a net benefit."

95 na Water Watch Lines 718-19 To provide more clarity. "Delete or revise (k). Language is not clear. To extent it's saying a net benefit determination may require gathering of information, that probably goes without saying. If reworded, consider combining with subsection (g) for clarity/simplicity."

96 na Water Watch Line 721 To ensure that mitigation in fact provides a net benefit relative to providing passage. "Add a subsection to subsection (9): "Shall take into account the extent to which the proposed mitigation is likely to occur independent of a fish passage waiver, through an event at the mitigation site triggering fish passage requirements, through public or private restoration activities, or otherwise." If this factor is not taken into account, fish passage may be waived without any actual long-term positive effect for fish. A barrier that would have had passage (at the waiver site) will continue to not have passage while the compensation for that is something fish would likely have received regardless."

97 na Water Watch Line 721 "To ensure transparency, accountability and opportunities for public engagement." "We agree (as suggested in 2021 Potential DRAFT Rule Change Concepts for Consideration and Discussion) that not all waiver and exemption decisions require review by the Fish Passage Task Force. However, notice and opportunity to comment should be provided for all applications for fish passage approvals, waivers and exemptions, and notice and a copy of the decision document should be provided (without requiring a special request) for all passage, waivers and exemptions. An analogy - with significantly greater volume and frequency than we would expected here - is the weekly public notice from the Water Resources Department. This could be a simple email notice limited to people who sign up to receive it."

98 na Water Watch Line 721 To help achieve stated purpose of consistency with Climate and Ocean Change Policy "A new rule: "All decisions under fish passage laws and rules, including decisions regarding whether passage would provide an appreciable benefit, whether mitigation for a waiver will result in a net benefit, and whether proposed fish passage complies with criteria in the rules, shall take into account the expected effects of climate change, including effects to streamflows, water temperatures and the importance of protecting and restoring habitat for native migratory fish.""

99 na Mary-Ann Farm Bureau Definitions "The definition of "artificial obstruction" is too broad, and we strongly object to the addition of language that would list a feature as

an artificial obstruction if it “has the potential” to impact fish passage. This definition is at odds with the statutory authority of the program, and would give the agency nearly unlimited authority over state waterways. That is unacceptable."

100 na Mary-Ann Farm Bureau Definitions "We object to the inclusion of bridges in this program, and fail to see how they meet the definition of an obstruction that requires fish passage given that they do not impede the passage of fish."

101 na Mary-Ann Farm Bureau Definitions "The definition of “major replacement” should be narrowed – is has been used to capture very minor repairs, which do not significantly alter the structure or change its relationship to fish passage. Routine maintenance should not trigger application of this statute. We strongly object to the introduction of a cumulative standard for determining if something is a major replacement."

102 na Mary-Ann Farm Bureau Definitions The definition of “in proximity” is inconsistent with the statute and should be changed to reflect the statutory language. We recommend that the reference to “directly affected by an artificial obstruction” be removed from the definition of in-proximity. It is too subjective and allow for too much agency interpretation and inconsistent application.

103 na Mary-Ann Farm Bureau Definitions "We would like you to revise the definition of “net benefit” to avoid its unintended application of killing projects that actually improve fish habitat versus the current project. We also strongly encourage adopting a definition and view of “in proximity” that is more in line with the statutory view of proximity as being within the same watershed or water basin and having the highest likelihood of benefiting the native migratory fish populations directly affected by an artificial obstruction. It is simply not necessary for every single obstruction of provide fish passage, and a net benefit analysis should account for where other passage is in the watershed and passage is most needed, as appears to happen with ODOT frequently."

104 na Mary-Ann Farm Bureau Definitions We also recommend that ODFW create a path to work with farmers and ranchers on solutions and exemptions for artificial obstructions such as dams and tide gates.

105 na Mary-Ann Farm Bureau Waivers - Exemptions "This section of the regulation provides for granting an exemption from fish passage requirements when there is no appreciable benefit. The Fish Passage Task Force has never provided guidance as to what no appreciable benefit to fish passage is or when an exemption is appropriate. The current regulation includes many definitions, but there is no definition for “no appreciable benefit”."

106 na Mary-Ann Farm Bureau Waivers - Exemptions "We would like to work with you on creation of a definition that works for farmers, ranchers and districts statewide."

107 na Mary-Ann Farm Bureau Passage Criteria "We recommend that the requirement in 635-412-0035(4)(b) that tide gates should comply with OAR 635-412-0035(2) or (3) be removed. If there are factors in those section that may apply to tide gates, then those factors should be detailed in OAR 635-412-0035(4)(b)"

108 na Mary-Ann Farm Bureau Passage Criteria We strongly encourage ODFW to revisit the width and height requirements of this section – they are not based in the reality of what we see on the ground and result in arbitrary and expensive replacements that go beyond what’s mandated in the fish passage statutes.

109 na Mary-Ann Farm Bureau Passage Criteria "The requirements for an “experimental fish passage structure” to move from an experimental status to a no longer experimental structure are unreasonable, particularly for tidegates. ODFW must provide for an approve alternative methods of compliance. Specifically, we recommend that the criteria for evaluation and approval of experimental tide gates be considerably reduced. This will allow for approval of more affordable options to small ranchers and farmers. We also recommend that ODFW make a real effort to develop and approve inexpensive tide gate options that a farmer or rancher can install themselves."

110 na Mary-Ann Farm Bureau Mitigation Criteria "Mitigation options include restoration or enhancement of native migratory fish habitat. We recommend that mitigation should be waived where other fish passage projects are providing sufficient fish passage in a basin, particularly as it relates to small tide gates and dams."

111 na Breena Vaughn NWAHA General "NWAHA is supportive of ways to clarify the regulations and policies implementing Oregon’s fish passage statutes to ensure that updates to the policies promote clean energy without impeding fish passage or by enhancing passage, where feasible. We have been working with our member companies to review the Oregon Administrative Rules (OARs) to identify where clarifications to policies and definitions can improve our ability to find opportunities for addressing changing climate conditions by simultaneously providing fish passage and clean energy solutions."

` na Breena Vaughn NWAHA General "From these members, you will hear proposed revisions that can clarify net benefit, appreciable benefits, and unlock capacity for power at nonpowered dams which currently provide non-energy benefits to communities. NWAHA encourages the Rules Advisory Committee not to foreclose on a clean energy future through the adoption of revisions that do not consider the full import of benefits that hydropower provides to a clean energy system."

113 na Lambert TU Definitions Appreciable Benefit "TU proposes that a definition be included for the term “appreciable benefit.” We assume that the

inclusion of “appreciable” was intended to facilitate exemption of fish passage requirements for projects that would have a de minimus biological effect on native migratory fish. However, the fish passage statutes require fish passage where native migratory fish were “historically present” in addition to where they are currently present. Accordingly, to ensure consistency with the statutory directives, TU recommends that the definition consider fish passage benefit in the context of other reasonably foreseeable future conditions and projects. In many systems, there are multiple fish passage barriers and a project should not be approved without fish passage obligations solely because other barriers are present especially if it is reasonably foreseeable that



the other barriers will also be addressed in the future.

Proposed Definition: "Appreciable benefit" means "meaningful biological benefit to native migratory fish based on present or reasonably foreseeable future conditions."

114 na Lambert TU Definition - Artificial Obstruction "TU understands that the artificial obstruction definition is contained in statute. However, we recommend that the definition be modified to clarify that it includes human-made devices/structures/operations that constitute physical barriers (dams, diversions, culverts, levees etc.) or contribute to environmental barriers (poor water quality, temperature, excess sediment, low flow). There are many different scenarios that can produce conditions that impede movement of fish (increased sediment that changes the habitat such that it becomes impassable, change in temperature conditions that prevent movement of fish, change in flow velocity, volume or quality that can prevent movement of fish). Proposed Definition: "Artificial obstruction" means "any dam, diversion, dike, berm, levee, tide or flood gate, road, culvert, or other human-made device, placed in the waters of this state that precludes or prevents the migration of native migratory fish by physical means or by contributing to poor water quality, flow, or habitat conditions that are significant enough to impede or delay fish movement."

115 na Lambert TU Definition of "Native Migratory Fish": OAR 635-412-0005 (32): Line 109 "The regulations define "native migratory fish" by including a reference to a related OAR 635-007-0501 which defines "native fish" as meaning indigenous to Oregon, not introduced. This includes both naturally produced and hatchery produced fish. This indicates that hatchery stock produced from fish native to Oregon are included in the "native migratory fish" definition. This is an important component that should be clearly stated in the definition, not simply referenced.

TU recommends the following definition: "Native migratory fish" means "native fish as defined under OAR 635-007-0501 to be fish indigenous to Oregon, not introduced. This includes both naturally produced and hatchery produced fish that migrate for their life cycle needs."

116 na Lambert TU Definition of "Construction" and "Major Replacement": OAR 635-412-0005 (9): Lines 21-23/36-38 "In reviewing the legislative history, it is clear that the goal of the fish passage statute was to ensure that fish passage was secured on all new and existing structures. However, it was acknowledged that this was significantly more challenging to do in the context of existing structures given the amount of investment it might take. Accordingly, the concept of "triggers" was established to ensure that owners/operators would take fish passage costs into account as part of a larger project/expenditure but not for minor maintenance. Unfortunately, the structure of the existing rule has created a system that upends this goal by allowing project owner/operators to avoid fish passage obligations by breaking up investments such that the trigger amounts are never exceeded but are cumulatively considerable over time. This is contrary to the goals of the statute.

Accordingly, we recommend that the trigger definition be modified to clarify that a “major replacement” occurs when a cumulative threshold of 30 percent is reached for all obstruction types, including dams. Additionally, we recommend that “major replacement” be defined by “percent of dam volume or by professional judgment of ODFW.” This would help address circumstances where significant repairs occur that effectively replace a dam but result in only minor changes to volume. Defining what constitutes “structure volume” could also help address this point.

TU recommends the following definition: “Structure volume” means “the volume of a dam as the total space occupied by the materials forming the dam structure computed between abutments and from the top to the bottom of the dam. No deduction is made for small openings such as galleries, adits, and operating chambers within the dam structure. Portions of powerhouses, locks, spillways etc. may be included only if they are necessary for the structural stability of the dam.”

117 na Lambert TU Fish Passage Waiver and Exemptions Review (OAR 635-412-0025(6)) "The fish passage statutes contemplate that the Commission will periodically review (at least once every seven years) fish passage exemptions to determine if changed circumstances support a change to exemption status. Outside stakeholders, organizations and individuals are often in a position to understand changed conditions and circumstances in specific geographies. Accordingly, it makes sense for the rules to delineate a more formal process whereby such stakeholders can bring this information to the Commission to be utilized in reviewing the continued applicability of specific exemptions and waivers.

Proposed 635-412-0025(6)(a) new subsection: Line 341: “Any private citizen, organization or government agency may submit a petition to the Commission requesting a review of an existing fish passage exemption or waiver due to changed circumstances. Within 60 days of receipt of the petition, the Commission shall direct the Department and/or the Task Force to review the information in the petition and any other relevant information to make a recommendation to the Commission regarding whether the exemption or waiver should continue. The Commission may revoke or amend an exemption or waiver, if it finds that circumstances have changed such that the basis for the exemption or waiver no longer applies.”

118 na Lambert TU Mitigation Criteria Line 710: 635-412-0040(9)(f) "Recommend deletion of this line or clarification. Consideration and approval of a mitigation package is based on whether a net benefit to species can be secured not whether a dam owner or operator believes it is more feasible. If such language is retained, it should be clarified to more closely match the statute which allows the consideration of “equitable factors” (ORS 509.585(5) when negotiating the terms and conditions of fish passage or alternatives. Any information regarding feasibility that is considered as part of this discussion should be required to be from an objective, verifiable source."

119 na Lambert TU Line 712: 635-412-0040(9)(g) "This section seems to narrow the circumstances where the Commission/Department may require additional information to support a net benefit determination. TU recommends clarification that explicitly allows ODFW/Commission to require compilation of existing information or gathering of new information required to make a net benefit determination. Additionally, TU recommends that quantification of baseline conditions be required to inform a net benefit determination. This information is necessary to

facilitate a determination that an “increase” of native migratory fish is likely to occur with the proposed mitigation.”

120 na Lambert TU Lines 678-684: Mitigation Fund "TU recommends that the mitigation options include a provision for on-going monetary support that is linked to meeting quantitative goals that are biologically likely to lead to an increased number of native migratory fish in the affected watershed. TU recommends the following language: “Establishment of a conservation fund by the owner or operator or contribution to an existing conservation fund in an amount sufficient to implement mitigation actions likely to lead to an increased number of native migratory fish in the affected watershed as determined by the Department. Mitigation in the form of a fund contribution should include a commitment of a fixed portion of annual hydropower revenue and should clearly articulate guidelines for how money will be distributed, pursuant to what method and how effectiveness will be assessed. All mitigation measures that are implemented with money from the fund should include quantifiable metrics and effectiveness monitoring to demonstrate how such actions are likely to lead to an increased number of native migratory fish in the affected area. Quantifiable metrics should be S.M.A.R.T. (Specific, Measurable, Achievable, Relevant, and Timebound).”

121 na Lambert TU Lines 698-699: Annual Reporting "The OAR states that the person owning or operating an artificial obstruction shall report on the maintenance, monitoring and evaluation of mitigation. Reporting frequency and public access to the reports is not addressed. These provisions should be added to the OAR.

TU recommends the following language. “A person owning or operating an artificial obstruction is responsible for maintaining, monitoring, and evaluating the effectiveness of mitigation measures and reporting on completed and planned mitigation actions. These reports shall be submitted to the Department on an annual basis and be made available to the public.”

122 na Lambert TU Line 721: Addition of Language regarding other mitigation obligations "Add a subsection to subsection (9): ""Shall take into account the extent to which the proposed mitigation is likely to occur independent of a fish passage waiver."" Such a provision ensures that mitigation implemented is truly additive and that fish passage at a site is not waived without ensuring an actual long-term positive effect for native migratory fish."

123 na Lambert TU Line 721: Addition of Language regarding climate change "When undertaking a net benefit determination and considering the adequacy of mitigation proposals, the Department should consider climate change implications including anticipated future hydrologic and water quality conditions.

Add a subsection to subsection (9): “Shall take into account the State’s climate change goals and the best available information on predicted future conditions under climate change conditions when assessing whether mitigation will provide a net benefit to native migratory fish.”

124 na Rogers TU Lines 6-8: Definition of artificial obstruction. "Lines 6-8: Replace artificial obstruction with the more effective term “artificial barrier”. Research

indicates that physical barriers can cause changes in water quantity or quality that can be a barrier to

fish migration and survival. These conditions may be intensified by climate change." "Lines 6-8: Artificial barrier means any dam diversion, dike, berm, levee, tide or flood gate, road, culvert, or other human-made device placed in the waters of this state that prevents the migration of native migratory fish by physically blocking the waterway or by producing conditions in the water that preclude fish migration, including low flow, water temperature or toxic chemical concentrations."

125 na Rogers TU "Lines 21-23: diversions, excavations, or replacement of 30% of structure volume of the dam." "Lines 21-23: Clarify the Major Replacement trigger. The 30% structural revision or repair trigger for fish

passage review, should be triggered whether the barrier structure was modified as a single project or as a series of separate structural repairs or revisions, over time." "Lines 21-23: 21(b) Major replacement, which includes:

22(A) for dams and diversions, excavation, or replacement of 30 percent by structure volume of the dam, including periodic or seasonal replacements, whether completed as a single project or as the result of an accumulated series of non-contiguous structural additions and revisions, unless:"

126 na Rogers TU Lines 322-324: Net benefit analysis. Line 322: The net benefit should be validated by quantifiable measures. Line 324: Allow for reevaluation of a waiver if data indicates that it has not provided the declared net benefit. "Line 322: proposed mitigation. To validate the net benefit of a mitigation proposal, quantifiable measures will be established for each project prior to the final waiver decision. The measures will be applied, as required by the waiver decision, to fulfill the operator's monitoring requirement for each mitigation project. The results will be reported to the Department as required by regulation.

Line 324: determination shall be based upon conditions that exist at the time of comparison. If it is established through post construction monitoring that the mitigation project has not met the net benefit monitoring specifications required in the waiver decision, the waiver may be reviewed for possible revision or revocation."

127 na Rogers TU Line 341: Add new section: Request for review of an established exemption or waiver. Line 341: Allow for review and revision of an exemption or waiver decision if circumstances have changed or new information becomes available. "Line 341: Upon request by any private citizen, organization, government agency or official a decision to grant a fish passage exemption or waiver will be reviewed by the Department, Task Force, or Commission. If the reviewing body determines that the circumstances on which the exemption or waiver decision was based are no longer valid the Department or Commission may revoke or revise the decision."

128 na Rogers TU Line 680: Additional Mitigation options. Lines 680: Add additional mitigation options: Fund a mitigation project through an unaffiliated organization or government agency or conservation trust fund. "Line 680: passage under OAR 635-412-0015 or 635-412-0020. Mitigation may include, if approved by the Task Force or Commission, direct funding of a mitigation project through an unaffiliated organization or government agency or the establishment of conservation trust fund that will award grants to fund conservation projects in the subject watershed."

129 na Rogers TU Lines 698-699: Mitigation reporting schedule. Lines 698-699: Define the schedule for reporting on evaluating the effectiveness of mitigation. Lines 698-699: effectiveness of mitigation and submitting an annual report to the Department. Reports will be posted on the Department website for public review. (We recommend that the Department set a date for these reports that will work best for the Department or at the end of the calendar year or on the annual date of the barrier project approval.)

130 na Deschutes TU Definitions "The phrase "artificial obstruction" (impedes or prevents passage) is used throughout the OAR. However, its definition in the rules clearly describes an artificial barrier (prevents movement or access). The phrase throughout the OAR should be changed to artificial barrier."

131 na Deschutes TU Lines 6-8: definition of artificial obstruction "Lines 6-8: The use of the term "precludes" (meaning = prevent from happening) is redundant and confusing. If the intention is to include some qualifying language short of "prevents" then that should be more clearly stated, otherwise the term "precludes" can be deleted. Also see the above overall comment." "Line 7: ...human-made device, placed in the waters of this state that precludes or prevents the migration of native migratory..."

132 na Deschutes TU Lines 22-23: excavation or replacement of 30% structure volume of dam "Lines 22-23: There is general consensus among involved conservation groups in the Bend area that this provision was not properly applied in the case of the major rehabilitation work done on the Mirror Pond dam. The 30% factor specified in OAR was reached at Mirror Pond but fish passage requirements were not triggered. This indicates a lack of clarity in the current language with specific reference to the phrase "by structure volume" which is pivotal in applying this rule. Structure volume should be defined and included in the definitions section of the OAR.

The phrase "structure volume" is not readily found in a search of terms related to dam engineering. The closest was provided by Stanford University in their National Performance of Dams Program where "the volume of a dam is the total space occupied by the materials forming the dam structure computed between abutments and from the top to the bottom of the dam. No deduction is made for small openings such as galleries, adits, and operating chambers within the dam structure. Portions of powerhouses, locks, spillways etc. may be included only if they are necessary for the structural stability of the dam." This may not be the best definition for "structure volume" but highlights the need that something more specific be included in the OAR to better define the context of the 30% factor." "Lines 22-23: Note: to add some clarity for this section, a definition should be added after the current line 161. This suggested language is offered as a starting point, there may be a better definition available:

"Structure volume" means the volume of a dam as the total space occupied by the materials forming the dam structure computed between abutments and from the top to the bottom of the dam. No deduction is made for small openings such as galleries, adits, and operating chambers within the dam structure. Portions of powerhouses, locks, spillways etc. may be included only if they are necessary for the structural stability of the dam."

133 na Deschutes TU Lines 95-96: change in permit status "Lines 95-96: The definition for "fundamental change in permit status" should be broadened to

include a provision allowing some form of after-the-fact review of prior decisions regarding actions or nonactions taken by the Department. Again, citing the situation at Mirror Pond, it is necessary to have a remedy for prior decisions/nondecisions affecting fish passage where information pertaining to the 30% trigger and structure volume was either not available, inaccurate or misapplied in reaching a decision on fish passage status." "Lines 95-96: ...construction or abandonment of an artificial obstruction. This provision for change in permit status shall include conditions where it is determined that the original decision, including opting not to take action, may be subsequently reviewed by the Department where findings of fact materially affecting that action/inaction decision, were either unavailable, inaccurate or misapplied."

134 na Deschutes TU Lines 109-111: definition of native migratory fish "Lines 109-111: The OAR defines "native migratory fish" by including a reference to a related OAR 635-007-0501 which defines ""native fish as meaning indigenous to Oregon, not introduced. This includes both naturally produced and hatchery produced fish." This indicates that hatchery stock produced from fish native to Oregon are included in the "native migratory fish" definition. This is an important component that should be clearly stated in the definition, not simply referenced." "Lines 109-111: "Native migratory fish" means native fish as defined under OAR 635-007-0501 to be fish indigenous to Oregon, not introduced. This includes both naturally produced and hatchery produced fish that migrate for their life cycle needs."

135 na Deschutes TU Line 253-257: 60% funding provision by the Department "Line 253 - 257: This OAR is in the context of the Department arranging at least 60% funding for the design, construction and installation of fish passage at an owner or operator's artificial obstruction. The owner/operator then has two years to either get the fish passage installed OR "provide mitigation that the Commission determines is a net benefit to native migratory fish". Question: why would the Department go to the time and effort of negotiating a 60% funding arrangement with the owner/operator to install fish passage yet still leave the mitigation option on the table?" "Line 257: b) Provide mitigation that the Commission determines is a net benefit to native migratory fish."

136 na Deschutes TU Lines 320-324: net benefit analysis "Lines 320-324: The determination of "net benefit to native migratory fish" is a static or single moment in time evaluation under the current OAR. In lines 323 and 324 the OAR reads, "The net benefit to fish determination shall be based upon conditions that exist at the time of comparison". This provides no ability to adjust the net benefit determination in the future once monitoring data is available to validate the original comparison. The OAR should include some flexibility to review the net benefit analysis down the road when, based on actual monitoring of mitigation strategies, there is hard data to evaluate the accuracy of the original comparison." "Lines 323-324: The net benefit to fish determination shall initially be based upon conditions that exist at the time of comparison. Provided that, if future field monitoring data regarding the efficacy of the implemented mitigation strategies shows the net benefit analysis to be obsolete, then the Department will initiate a review and update of the original analysis based on this current data."

137 na Deschutes TU Lines 678-684: mitigation options "Lines 678-684: This section addresses mitigation options. Based on the experience from the Bowman dam waiver request process, it would be worthwhile to include in mitigation options a provision for on-going monetary support. For example, supporting a local watershed council in their efforts to restore or enhance native migratory fish habitat could be specifically identified as an option. This is along the lines of establishing a conservation fund dedicated to the watershed or sub-basin affected by the artificial obstruction."

138 na Deschutes TU Line 682 (more of a question): single use of the term "wild" throughout OAR "Line 682: This section contains the single reference in the entire fish passage OAR to "wild" fish. This is in the context of mitigation criteria which include "fish management measures to directly increase naturally producing wild, native migratory fish populations". This is really a question about rulemaking intent and whether this is meant to expand acceptable mitigation measures to include BOTH wild fish (e.g. brown trout, brook trout) that reproduce naturally and native migratory fish as named in lines 113 – 144." "Line 683: Establishment of a conservation fund by the owner or operator dedicated to mitigating the impacts of the artificial obstruction on native migratory fish habitat or other actions determined to provide benefit to native migratory fish in the area affected by the artificial obstruction. This fund shall provide money to support the agreed upon mitigation actions to be taken by the designated conservation group as established in a written conservation plan executed among the owner/operator, Department and conservation group."

139 na Deschutes TU Lines 698-699: reporting on mitigation "Lines 698-699: The OAR states that the person owning or operating an artificial obstruction shall report on the maintenance, monitoring and evaluation of mitigation. This appears to allow a fairly wide-open reporting format. Most important, there is no mention of reporting frequency or the ability for public review of these monitoring reports. These provisions should be added to the OAR." "Lines 698-699: (8) A person owning or operating an artificial obstruction is responsible for maintaining, monitoring, and evaluating the effectiveness of mitigation measures and reporting on completed and planned mitigation actions. These reports shall be submitted to the Department on an annual basis and be made available to the public."

140 na Myron Self Net Benefit "Do the proposed rules make any changes to the process of getting a fish passage waiver. As a member of the original passage task force that worked to develop the current statutes, I would be disappointed it getting a waiver was made easier by changing the "net benefit" requirement." "Do the proposed rules make any changes to the process of getting a fish passage waiver. As a member of the original passage task force that worked to develop the current statutes, I would be disappointed it getting a waiver was made easier by changing the "net benefit" requirement."

141 na PacifiCorp Introduction (New) "RAC members have suggested an introductory statement of policy and intent. Our suggested language is as follows:

It is the policy of the State of Oregon to provide for the upstream and downstream passage of native migratory fish at artificial obstructions. Potential changes in Oregon's future climate may exacerbate fish passage problems and perhaps threaten the very existence of some native migratory fish species. It is therefore the intent of these rules to promote providing fish passage, or mitigation measures that

provide greater net-benefit, while recognizing and minimizing burdens placed on the owners and/or operators of artificial obstructions."

142 na PacifiCorp Definitions (-0005; New) "“Appreciable benefit” means that fish passage at an Artificial Obstruction would provide fish with access to existing habitat of the type, duration, frequency, quality, and quantity needed to support healthy populations of one or more life history stages of those native migratory fish that are present downstream of Artificial Obstruction at the time of the exemption request"

143 na PacifiCorp "Definitions (-0005 (b)(A)); Line 22 and 23" "“Major replacement” denotes a majority (i.e., more than 50 percent). The volumetric threshold for excavation or replacement of dams and diversions should be brought in line with the other facility types that require over 50 percent to meet this definition.

In consideration of the change above, structure volume would be inclusive of the entirety of the Artificial Obstruction, including any earthen embankments, and not just the concrete portion of the obstruction."

144 na PacifiCorp Definitions (-0005 (b)(A)(i)); Line 24 and 25 "Insert between (i) and (ii) the following:

(ii) The major replacement is for the purpose of addressing dam safety deficiencies and does not increase operating storage or diversion capacity.

Modifications that are for dam safety and/or to increase reservoir storage solely to address high runoff conditions and protection of downstream resources should be exempt from this requirement. For example, the Federal Energy Regulatory Commission (FERC) may require an increase in dam height to help pass a Probable Maximum Flood (PMF), however that newly gained storage would not be part of normal operations, and would only be used during a PMF event."

145 na PacifiCorp Definitions (-0005 (18)); Line 75 Suggest striking “with minimal stress” as it is a subjective term and there is a better criterion below (physiological injury).

146 na PacifiCorp Definitions (-0005 (21)); Lines 84-85 "Suggest the following edit:

“...flow into the waterway downstream of an artificial obstruction tailrace and where upstream...”

147 na PacifiCorp Definitions (-0005 (24)); Line 91 "“Impoundment” or “reservoir” are more appropriate terms than “Forebay”. A forebay is generally something else entirely in hydropower: temporary storage basin upstream of an intake chamber (i.e., penstock)."

148 na PacifiCorp Definitions (-0005 (25)); Lines 92-96 "Text should be revised so that adding new hydroelectric generation to existing dams and using the stream flow release as a non-consumptive use (e.g., hydro generation) does not trigger construction of fish passage.

Suggested text: “...conditions on the applicant, where the proposed action creates a new Artificial Obstruction or increases the severity of an existing Artificial Obstruction including but not limited to



licensing, relicensing, reauthorization or the granting of new water rights that affect availability of instream flows downstream of the artificial obstruction..."

149 na PacifiCorp Definitions (-0005 (32)); Line 109-112 "The rules need to be able to distinguish diadromous migrations, more specifically anadromy, from other life history strategies. Fish movements are biologically distinct from migration and should be represented as such in the rules.

Consider adding a definition of "migration" to include a persistent, undistracted and straightened-out movement, achieved through the fish's locomotory means or by actively seeking a transport medium (e.g., water currents), during which individuals remain undistracted by the resources they might find during migration by temporarily inhibiting 'station-keeping responses' (i.e., residency) and that might be repeated later in life (adapted from Dingle 1996 in Morais and Daverat 2016). This definition would impact 635-412-0025 (2) and discussion of relative value of anadromous benefit versus resident species benefits in a net benefit analysis.

Alternately consider adding "obligated" to the definition so as to read "... native fish and their life stages.....that are obligated to migrate..."

150 na PacifiCorp Definitions (-0005 (41)); Line 163 Suggested text: "...of an instream structure discharging flow to a receiving water body."

151 na PacifiCorp Prioritization (-0015 (2)); Line 225 "To be consistent with ODFW's climate change policy, document should recognize that certain watersheds may need to be prioritized above others because of water availability and water temperature of a changing climate.

Suggest the following edit: "The priority list shall be based on the current and future the needs of native migratory fish."

152 na PacifiCorp Prioritization (-0015 (2)(a)(A)); Line 228 Same edit as above: "The quantity of current and future native migratory fish habitat which is inaccessible."

153 na PacifiCorp Prioritization (-0015 (2)(a)(B)); Line 229 "Need consistency with ODFW's climate change policy and needed focus on science-based risk decision.

Edit:

The current and future quality of native migratory fish habitat which is inaccessible, after incorporating best available science regarding likely impacts of climate change on the habitat."

154 na PacifiCorp Prioritization (-0015 (2)(b)); Lines 237-238 Within this section need to add that the relative position of an artificial obstruction on the priority list shall not be used as a basis for approving or denying waivers.

155 na PacifiCorp Prioritization (-0015 (2)(c)); Lines 239-240 "Propose striking (c) as making the priority list contain one artificial obstruction per sub-basin is arbitrary. In order to be effective, the Priority list should be statewide."

156 na PacifiCorp Fish Passage Approval (-0020); New "The addition of hydro generation to an existing dam provides a unique and positive step towards addressing climate change. The proponent of adding hydropower to an existing dam should not be required to address fish passage issues unless the new generation facility directly impacts fish passage (e.g., downstream fish passage through turbines).

Propose addition to this section: "Project proponents who are neither the owner or the operator of an artificial obstruction but propose facilities, including renewable energy generating facilities ancillary to an artificial obstruction, are not subject to the fish passage requirements of this section provided such ancillary operation does not conflict with native fish migration."

157 na PacifiCorp Fish Passage Approval (-0020 (1)); Lines 264-265  
"Juvenile fish do not "migrate" upstream for a life cycle purpose.

Edit:

".....providing passage for native migratory fish per life cycle requirements."

158 na PacifiCorp Fish Passage Waivers and Exemptions (-0025 (2)); Lines 320-324  
"A discussion of the relative value of anadromous species benefits versus resident species benefits should be provided here or elsewhere.

This analysis needs to consider all benefits to fish from the proposed action including water quality, water quantity, habitat, predator reduction, denial of passing non-native species, etc. For example, adding generation to an existing dam and thereby increasing DO downstream of the dam should be a counted as benefit to fish. The net benefit analysis should consider both current and future (climate change) conditions."

159 na PacifiCorp Fish Passage Waivers and Exemptions (-0025 (4)); Lines 328-333  
"Insert these or similar revised statements as subordinates under (4):

(x) Climate change negatively impacts the future quality and quantity of fish passage (e.g., where current habitat suitability has been deemed "marginal" upstream of barrier);

(y) The exemption aligns with renewable energy policy and ODFW climate and ocean change policy OAR 635-900-0001 to 0020, including provisions for an exemption for fish passage when installing a hydropower unit at an existing artificial obstruction that is not subject to the state's fish passage OAR (federal ownership) or when hydropower was not an original authorization for the artificial obstruction."

160 na PacifiCorp Fish Passage Waivers and Exemptions (-0025 (8)); Lines 343-347  
"All proposed mitigation measures should be considered in the benefits analysis. Typically, mitigation packages address a variety of environmental impacts and provide integrated benefits across resource areas. Values of mitigation measures should not be individually assigned or credited to a single resource. For example, improving dissolved oxygen benefits water quality and the resources (in particular, fish) dependent on that environment.

Edit:

“.....whether the waiver request meets the requirements of subsection (1) or the exemption request meets the requirements of subsections (4) and (5), including any biological benefits resulting from conditions of a Clean Water Act Section 401 water quality certification.””

161 na PacifiCorp Fish Passage Criteria (-0035 (11)(b)); Lines 654-659  
"The statement "If at any time an experimental fish passage structure is deemed by the Department in writing to not provide fish passage..." seems very subjective. Statement would benefit from identification of reasonable standards that can be referenced and measured.

At the end of (11)(b) need to remove "but no later than the end of the next complete in-water work period after notification by the Department." In most cases this is not feasible or reasonable, and the earlier text "shall be installed as soon as practicable" drives the timing of construction."

162 na PacifiCorp Mitigation Criteria (-0040 (2)(b)); Line 682 Edit:  
Restoration or enhancement of native migratory fish habitat that fulfills obligate requirements of a migratory life-stage;

163 na PacifiCorp Mitigation Criteria (-0040 (3)); Lines 686-688 "As  
noted in a previous comment, all proposed mitigation  
measures should be considered.

Edit:

Mitigation shall not include may include any activity that is a requirement or condition of any other agreement, law, permit, or authorization except if the activity results from a judicial proceeding or settlement to address violations in state or federal law. if it is also for fish passage mitigation of the same action at the artificial obstruction for a different level of government."

164 na PacifiCorp Mitigation Criteria (-0040 (9)(c)); Line 705 "To  
provide the greatest opportunity for mitigation value, revise text to: "Shall benefit the same native fish species affected at the artificial obstruction or provide greater relative benefit to migratory (e.g., anadromous), endangered, and/or threatened species not affected at the artificial obstruction than to those non-migratory, non-endangered, or non-threatened species affected at the artificial obstruction."

165 na "OFIC, AOL & OSWA" "Fish passage should only be required after a cost/  
benefit analysis has been done to determine if a project is worth the cost in terms of the benefit to the species. This should be recognized in rule and allow flexibility so resources, private and public, can be appropriately routed to projects that get the most "bang for the buck". Blockages that exist at the extreme end of fish distribution may not warrant large investments." "Migratory fish need access to the habitats they use throughout their complex life histories. Current forest practices rules acknowledge this need and guide landowners in identifying and correcting existing passage barriers and ensuring new barriers are not created. Landowners also work with watershed councils to identify and restore fish passage at high priority sites in a worst-first fashion; between 1997 and 2017, nearly 2,000

stream crossings have been improved for fish passage on private forestlands. Stream network access for salmon in Oregon's forests is better now than it has been in 50-years, and it continues to improve under existing forest practices rules and the Oregon Plan for Salmon and Watersheds.

Having said that, restoring anadromous fish access at the far upper extent of potential habitat has not resulted in documented marked increases in fish populations and may not justify the cost of certain projects. The foundational assumption in these extreme cases often appears overly optimistic. Restoring quality habitat and clearing the path for access to that habitat is an important goal, however in many instances the potential for habitat is questionable or poor at best. Thus, the need for a rule identified process that would recognize the value of a cost/benefit analysis prior to a project being undertaken. This process should be acknowledged within the prioritization process listed in OAR 635-412-0015 as well as the allowable waivers and exemptions listed in 635-412-0025. "

166 na "OFIC, AOL & OSWA" 635-412-0015(5) "The potential benefit stemming from restoring fish passage is for the overall population and health of state fish populations- a benefit to every Oregonian. Yet to date, most of the cost for removing these barriers has been borne entirely by individual forest landowners. A recent State report noted the following;

"over the past 20 years, the Oregon Plan has facilitated substantial landowner contributions to salmon restoration. In the Oregon Coast Range, landowners have completed 5,639 voluntary restoration projects at a cost of over \$162 million. Moreover, 84% of these projects received no incentive funding, and the costs of implementation were borne entirely by landowners." (Abraham, et. al. 2017)

All of society has an interest in and benefits from the conservation of fish and wildlife species, and therefore society should bare a much larger percentage of the burden for their well-being. We propose a cost share program, recognized by rule, for all projects on private lands that appropriately balances the burden for this restoration work. This mutual investment will fittingly include a conversation regarding a cost/ benefit analysis for the project so that public funds are expended for those projects that result in real benefits to the species." "Noting that within OAR 635-412-0015(5) non-owner funding of at least 60 percent must be obtained, we recommend that percentage be increased, and furthermore recommend that this concept be extended beyond those blockages contained on the priority list"

167 na "OFIC, AOL & OSWA" "Underlying both requests above is the fact that we have seen positive and stable population trends for the Oregon coastal Coho for over two decades in Oregon. The Oregon Plan for Salmon and Watersheds has accomplished its objective of recovering the Oregon coast Coho as evidenced by numerous data points on file at ODFW. Recent studies demonstrate that productive habitat is found on both private and public forest lands (Anlauf, et al. 2011). And habitat condition will continue to improve as restoration actions are implemented under the Oregon Plan. Moreover, we now know that the rebound in Coho populations observed from 2000-present are in line with historic population levels that were unquestionably considered healthy and viable (Cramer and Caldwell 2019)."

168 na "OFIC, AOL & OSWA" "Lastly, as a forestry community we would like to be on record opposing the construct of the Rule Advisory Committee (RAC) assigned to this process, notably the absence of a forest landowner or forest engineer. Our community represents an enormous amount of the work that has been done to date in restoring fish access and habitat

throughout Oregon. Furthermore, as noted above, we have done it largely by our own accord and with our own resources. We recognize the importance of this work, and as land stewards we take seriously our responsibility to act in accordance with strong ethical principles. As a community we support the spirit of the Oregon Plan for Salmon and Watersheds and are very proud of the work we've accomplished to help bring to pass the goals of that plan. We ask once again that this RAC be expanded to allow formal and functional representation from our very important voices in this process- that is one of the primary purposes of a RAC and yet in this instance we are arbitrarily being denied that opportunity."

169 na ODOT 635-412-0005 – Definitions - Line 11. Appreciable Benefit  
Add definition of "Appreciable benefit" Line 11

170 na ODOT 635-412-0005 – Definitions Active Channel Width  
""Active Channel Width"". Non-mainstem channel features need to be added to reflect true stream function in the reach. Suggested re-word:

""Active Channel Width"" is the cumulative width of a stream's channel elements at the Ordinary High Water Elevation within the confining landform. Cumulative bank-full width may be used for non-incised channels when Active Channel Width field indicators are absent or indeterminate."

171 na ODOT "635-412-0005 – Definitions - ""Artificial obstruction""  
""Artificial obstruction"" means any artificial structure or device within the Active Channel that convey waters of the State and precludes, impedes, or prevents the migration of native migratory fish required for survival and reproduction." (This includes spawning, rearing, foraging, and seasonal thermal refugia use.)"

172 na ODOT "635-412-0005 – Definitions - ""Attraction flow""  
""Attraction flow"" means the flow that discharges from the fishway that attracts upstream migrating fish or flow that enters the fishway that directs downstream migrating fish to the designed entrance."

173 na ODOT "635-412-0005 – Definitions: ""Bankfull elevation""  
""Bankfull elevation"" means the point on a stream bank at which overflow into a floodplain begins for non-incised channels.""

174 na ODOT 635-412-0005 – Definitions – "Bridge" "The word road is limiting. Assume this also applies to pedestrian/bike bridges, train bridges, etc" ""Bridge" – It is inappropriate in the engineering discipline to classify a 20 ft clear span as the appropriate definition of a bridge. 20 ft is an NBI threshold used to define what types of structures are required to be inspected and included in the National Bridge Inventory.

- The current definition is ignoring open bottomed, arches and single-span structures that are less than 20 ft? These are not classified as "culverts". How are these types of structures defined, and how are these captured in OARs / Design criteria, etc?"

175 na ODOT 635-412-0005 – Definitions – potential for definition of "Culvert".  
There needs to be some definition for a structure that has a clear span of less than 20 feet and does have earthen fill.

176 na ODOT 635-412-0005 - Definitions– Line 21: "Add "or modification" to read: (b) "Major replacement, or modification, which includes:""

177 na ODOT 635-412-0005 – Definitions - Line 51 ""(iv) Replaces any part of a culvert, except ends which become misaligned or eroded and which are replaced to their original configuration;" – Need to define "ends" – Is this 10% of the culvert length? 25%? Or, a single "segment", regardless of length? Recommend either 25%, or, align with bridge criteria (50%)."

178 na ODOT "635-412-0005 - Definitions– Line 54, 55" "clarification: "Makes replacements, repairs, patches, or modifications to an existing culvert that are different than the original configuration and which reduce any level of fish passage for native migratory fish with current access, as determined by the Department, to the culvert."

- If the repair restores the structure to its original configuration, and does not reduce the level of fish passage compared to the pre - repair action, does this constitute a trigger? (interpreted by applicants as "no"). If yes, recommend editing text in lines 54 and 55 to make trigger action clear. If no, recommend allowing repairs up to 50% that do not extend the design life of the structure."

179 na ODOT 635-412-0005 – Definitions - Line 43 ""Fills or removes over 50 percent by volume of the existing roadbed material directly above a culvert, except when this volume is exclusively composed of the top 1 foot of roadbed material."

- Paving projects that do not extend the service life of the stream crossing should not trigger fish passage criteria. During these types of projects, the structural integrity of the crossing is not addressed, and service life is not extended. Paving, ADA, and safety projects have avoided areas where they would trigger fish passage, even though the location may be best suited for the traveling public. Recommend removing this section altogether"

180 na ODOT 635-412-0005 – Definitions – "Clear Span" ""Clear Span" as defined in Bridge clarification document (2008): "means the open distance between bridge elements within the horizontal plane of the channel passing below the bridge. See Figure 3 for a depiction of the horizontal plane of the channel and Figure 4 for measurement examples". Is there a way to specify if this is based on road or stream centerline in the cases of skew?

- The bridge and hydraulic engineering disciplines define span differently. The Bridge discipline measures span along the centerline of the roadway / bridge structure. The Hydraulic discipline measures span perpendicular to the centerline of the flowline of the hydraulic structure. When the hydraulic structure is oriented perpendicular to the road

centerline the measurements are the same. When the hydraulic structure is on skew these measurements differ. This is described in the ODOT Hydraulic Design Manual as well as in the ODOT Bridge Design Manual. For this document, it is recommended recommend using the term "Bridge Span" and "Hydraulic Span" instead of "Clear Span" depending on what is attempting to be conveyed."

181 na ODOT 635-412-0005 – Definitions – Line 63 "Emergency" ""Emergency" – Need for definition in OARs? Currently referenced once. If definition is warranted, recommend including "as deemed by local, state or federal jurisdictions" or similar."

- 182 na ODOT 635-412-0005 – Definitions – Line 77 “Fish Passage Structure”  
 "add “conveyance” to cover constructed or restored channels that use native and or natural materials (e.g. large wood, substrate, etc.)."
- 183 na ODOT "635-412-005 – Definitions, NMF Line 136 “Oncorhynchus mykiss -- Steelhead, Rainbow and Redband trout”"  
 "If fish passage is required for instances where only hatchery produced fish are present, recommend including footnote or including in definition. Of note, hatchery progeny are oftentimes not “native” (strains originating from out of state)."
- 184 na ODOT 635-412-0005 – Definitions – Line 145 “Net Benefit”  
 "Reword to include: “means an increase in the overall, in-proximity habitat quality and or quantity at the population scale that is biologically likely to lead to the increased fitness and or number of native migratory fish species impacted by the action”"
- 185 na ODOT 635-412-0005 – Definitions - Line 145. NBA process  
 "Potential for OAR change, where a reference to “based on current calculation analysis process used in Statewide Priority List development”) or similar. Suggest additional language to current definition of Net Benefit: “means an increase in the overall, in-proximity habitat quality or quantity that is biologically likely to lead to an increased number of native migratory fish after a development action and any subsequent mitigation measures have been completed. “The Net Benefit Analysis can use the current calculation process as described in the Statewide High Priority Barrier Assessment White Paper to weigh potential benefits to NMF at trigger and mitigation locations”."
- 186 na ODOT 635-412-0005 – Definitions - Line 145. "NBA process should include climate change projections: Potential for OAR change, where a reference to “based on current calculation analysis process used in Statewide Priority List development”) or similar. Suggest additional language to current definition of Net Benefit to capture habitats value in lens of climate change: “means an increase in the overall, in-proximity habitat quality or quantity that is biologically likely to lead to an increased number of native migratory fish after a development action and any subsequent mitigation measures have been completed. The Net Benefit Analysis can use the current calculation process as described in the Statewide High Priority Barrier Assessment White Paper to weigh potential benefits to NMF at trigger and mitigation locations. The calculations can also include a score metric for each location including projected habitat conditions resulting from climate change impacts, including water quality, quantity, temperature, and other factors”."
- 187 na ODOT 635-412-0005 – Definitions - Line 157 “Roadfill footprint”  
 Perhaps simply state that the footprint includes the roadway prism and all crossings including its supporting elements. This covers everything including rip-rap and fill-slopes.
- 188 na ODOT 635-412-0005 – Definitions - Line 178 “Wetlands Is there a DSL OAR to be cited?
- 189 na ODOT 635 – 412 – 0015 – Prioritization - Line 222 "Opportunity to add a climate change metric and scoring to barriers as part of ODFW climate change policy. Climate change score could be in addition to existing formulas, and be based on current model projections available through the Pacific Northwest Research Station Climate Change models; located here. Barriers could be assigned scores based on climate change models, where “suitable habitat” (i.e water

temperature, quantity, ect) in 2080 projections receive additional points, whereas barriers that have low habitat value based on models receive less or negative “climate change score” value as part of overall equation."

- 190 na ODOT 635– 412 – 0015 – Prioritization - Line 223: What is the purpose of “enforcement”? I think this confuses the public and stakeholders
- 191 na ODOT 635– 412 – 0015 – Prioritization - Line 225 Recommend rewording to “The priority list shall be based on the needs of native migratory fish at population and watershed scale”.
- 192 na ODOT 635– 412 – 0015 – Prioritization - Line 228: "As currently written, does not address the future potential of habitat, only its current state. Re-word: “the current or potential quality of native migratory fish habitat which is inaccessible”. Only allowing for the current state is limiting”."
- 193 na ODOT 635– 412 – 0015 – Prioritization - Line 237 Professional judgement needs to have some sideboards. The statement is also ambiguous. Perhaps add “interpolate the best available data” including relevant metrics that are considered.
- 194 na ODOT 635– 412 – 0015 – Prioritization - Line 243 What is the purpose of this statement and how is “five” relevant?
- 195 na ODOT 635– 412 – 0015 – Prioritization - Line 257: "Though ideal, 2-years to provide mitigation is not realistic. Perhaps 1-year to propose mitigation to the Fish Passage Task Force?"
- 196 na ODOT 635 – 412 – 0020 – Fish Passage Approval - Line 264: Add “or off-site mitigation” after existing word “providing”
- 197 na ODOT 635 – 412 – 0020 – Fish Passage Approval - Line 270  
"Suggest OAR language that allows department to choose to use developed process to determine fish use. A publicly available process / checkbox that includes ODFW decision on metrics used to determine fish use. See flow chart and process developed by K. Nordholm for example of flow chart used to make fish use determinations. Metrics include: Defined stream channel, natural barrier in proximity, connection to known fish populations, drainage area size, drainage area gradient, Anthropogenic modifications, ect. A copy of this draft process is available upon request for discussion."
- 198 na ODOT "635-412-0025, General" "Either provide definitions for “Waiver” and Exemption”, or provide high level description in this section. As written, these can be confusing to general applicants on what these are. Process, timeline, identify “who does what” would be helpful."
- 199 na ODOT "635-412-0025, General" "Include Service area of mitigation (i.e. OWRD Districts, Watershed, HUC, etc)"
- 200 na ODOT "635-412-0025, General" ODFW shall develop and make readily available a guidance manual that defines and makes demonstrable “barrierarity”.



201 na ODOT "635-412-0025, Line 316" "ODOT supports ODFW District level, or other streamlined process, for straightforward exemptions. Exemptions that are not straightforward should be brought to Task Force for review under current process."

202 na ODOT "635-412-0025, Line 320" ""Net benefit to native migratory fish is determined by comparing the benefit to native migratory fish that would occur if the artificial obstruction had fish passage to the benefit to native migratory fish that would occur using the proposed mitigation. To qualify for a waiver of the requirement to install fish passage, mitigation shall result in a benefit to fish greater than that provided by the artificial obstruction with fish passage. The net benefit to fish determination shall be based upon conditions that exist at the time of comparison." This statement, or elsewhere in this section, does not address proposed structures that are in poor or critical in structural condition. In the past, the department has interpreted current rules and determined structures in poor or critical condition are not eligible as mitigation opportunities based on condition. Many structures are in poor or critical condition, but do not have plans to address in the near term. More clarity or additional language in this section of the OARs can help applicants that may be proposing mitigation on structures in poor condition."

203 na ODOT "635-412-0025, Line 320:" Include reasons why mitigation needs to have a greater benefit than providing on-site passage. Especially since waivers can be temporary.

204 na ODOT "635-412-0025, Line 315" "Opportunity for Payment in lieu of providing mitigation for emergency culvert repairs. May be appropriate to allow for this type of program in OARs, with details laid out in agreement outside of OARs:

In the case of culvert emergencies, is there an opportunity to set up and allow for financial compensation in lieu of mitigation project implementation conducted by trigger owner? Request department consideration of compensation opportunity on small systems where off site mitigation could be delivered by restoration practitioners, resulting in a benefit to NMF. Potential sideboards:

- Small streams with limited habitat: (< 1 mile of usable habitat, non-ESA listed, moderate or poor habitat quality, etc)
- State sourced funds could be used similar to CRPA compensation fund, where high priority fish passage projects are delivered off the ODOT network.
- Higher priority and more beneficial projects are delivered compared to an applicant shopping for an off-site project that barely meets an NBA.
- Removes time commitment issues to address passage as a result of trigger action. Current timelines difficult to meet due to funding cycles, federal reimbursement, other.
- Could be combined or run similar to existing ODFW CRPA compensation fund / RFP process
- Could be set up as another option to providing mitigation, and not a requirement. Barrier operators could still choose to address passage in other ways (i.e provide passage, implement off-site mitigation through waiver, etc).
- Would need emergency declaration to qualify

- Payment based on simple, transparent habitat calculation similar to 2019 prioritization process.  
(Cannot be heavily data reliant similar to challenges with North Coast Mitigation bank)

- Same OWRD Basin... simple tracking process to keep funding and mitigation projects in same basin / species"

205 na ODOT 635-412-0025 "ODFW has indicated that temporal delay in addressing passage at trigger locations may result in "extra mitigation obligation". Recommend defining how this obligation is calculated (i.e compensation fines, additional mitigation need, ect)."

206 na ODOT 635-412-0030 General Outside of OARS – How does ODOT and ODFW ensure an unbiased DOJ review in instances where DOJ representative serves both agencies?

207 na ODOT 635-412-0030 General "Please indicate which level of ODFW is this intended to address. (District staff, Program, Task Force, and or Commission)"

208 na ODOT 635-412-0030 General "Include parameters and cause for protests. E.g. Net benefit analysis, compliance with OARs, compliance with OAR design criteria, OARS and or ODFW application of the OAR criteria to inapplicable site, lack of benefit to the species and at what scale (HUC level, population, etc.)."

209 na ODOT 635-412-0030 General Include a Protest Process.  
Recommended to start with the Task Force prior to the Commission.

210 na ODOT 635-412-0030 General Include an ODFW response timeline.

211 na ODOT "635-412-0030, Line 386;" "Recommended additional language "In a situation where a state agency has a protest regarding fish passage requirements, and state level DOJ process is initiated, the ODFW Commission shall be asked to consider DOJ ruling as part of Commission determination" or similar."

212 na ODOT "635-412-0035, Fish Passage Criteria" "It would be helpful to have some language that allows for applicants to provide evidence of meeting fish passage by demonstrating:

- Hydraulics within the crossing emulate or are similar to those found within the stream reach.

- Velocities

- Channel roughness

- Depth

- Fish passage conditions overlap with the life-history needs native migratory fish. E.g. spawning migration, outmigration, thermally induced migration, foraging.

- This has been a method of obtaining fish passage approval, but is not clear in OARs for what is required, process, etc."

213 na ODOT "635-412-0035, Fish Passage Criteria" "General pertaining to fish passage AO's on manmade lakes, backwatered from dams, ect:" "Guidance needs to be developed

specific to situations where dams and or manmade lakes have drainage facilities and/or backwater influences at the artificial obstruction. Often, the extent of passage / backwater potential is outside of the control of the owner / operator of AO. "When water elevations at the downstream extent of the AO facilitate passage of NMF, structures shall maintain passage conditions pursuant to XX, ect" or similar."

214 na ODOT "635-412-0035, Fish Passage Criteria" General pertaining to voluntary retrofits; "It would be beneficial to clarify language around voluntary retrofits in the OARs. These could still go through engineering / ODFW review prior to construction. Clarification needed that a voluntary retrofit targeting fish passage improvements would not constitute a ""trigger"" dictating a complete replacement of AO."

215 na ODOT "635-412-0035, Fish Passage Criteria" General pertaining to Beavers "Guidance should be developed and incorporated into OARs to explain when a beaver deceiver, trash rack, pond leveling device, or other feature is considered an AO, or a Fish Passage Trigger.

If a beaver dam creates an AO, and a pond leveling device is installed in the location, is the pond leveling device considered a fish passage trigger? Or, does the pond leveling device trigger the beaver dam as the AO?"

216 na ODOT "635-412-0035, Fish Passage Criteria" General pertaining to restoration of floodplain and wetland habitats; Recommend developing guidance on when and how Fish Passage Triggers are handled in situations where artificial channels are filled for restoration purposes (i.e Stage 0).

217 na ODOT "635 – 412 – 0035, Fish Passage Criteria, Line 408" "This should go the other way as well. 'If the Department finds that fish passage criteria are not applicable to the stream reach conditions, then applicable criteria may be waived'. Example: The roughness and hydraulics naturally occurring in the reach are greater than those in the criteria. If the crossing creates a stable feature that emulates the reach then it should be allowed.

- This seems to address (c). However, it is rarely used by ODFW. Fairly the opposite. Perhaps there should be a petition process for ODFW to consider such.

- (e) State that fish passage structure shall not cause undo upstream and downstream lateral and vertical scour. (g) also include a maintenance requirement"

218 na ODOT "635-412-0035, Line 416, 417" "Define expectation. If monitoring is required on all projects, suggest editing current language to indicate as expectation. Suggest editing current language (635-412-0035 (1)(g): "Primarily at sites with little existing site information or questionable design solutions, the Department may require monitoring and reporting to determine if a fish passage structure meets applicable criteria and/or is providing fish passage" to read "Primarily at sites with little existing site

information or questionable design solutions, The department may requires monitoring and reporting to determine if a fish passage structure meets applicable criteria and/or is providing fish passage.""

219 na ODOT "635 – 412 – 0035, Fish Passage Criteria, Line 421" "Does this include 'roughened chutes' or steepened

natural bottomed stream grades that that pass underneath a bridge or through a culvert? It is highly advised to call out that these are excluded from this section. Past projects that this section as currently written is intended for intensely engineered features such as ladders and channels associated with water diversions and dams. There needs to be a new section that allows for natural bottomed crossings that may not strictly meet the current criteria."

220 na ODOT "635 – 412 – 0035, Fish Passage Criteria, Line 433" "6"  
Jump heights: Recommend reconciliation with WA and California standards

o When and where does this criteria apply (fishways versus stream sim versus life history needs) Define in OARs, and Develop guidance outside or OARS (design manual) to assist applicants with understanding of expectation.

o Guidance, either in OAR or in design manual, should address sites where stream reaches naturally have steepened sections with jump heights above 6" up and downstream of the project. Steeper gradients in these types of systems often do not allow for a stream simulation or "natural fishway" approach to meet 6" jump heights within reason.

o In steepened stream reaches, jump height criteria should be based on species and life history use. In many cases, providing for 6" jump heights for juveniles may prevent upstream migration of adults due to streaming flow conditions during periods of adult migration. This may be scenario where ODFW District personnel can determine which life stage should be targeted for passage criteria based on population status, limiting life stages, habitat type / availability upstream of the barrier, ect. Fully seeding the stream suggests adult passage should be preference, but could vary by location and limiting life stage (upstream juvenile summer steelhead migration for example). Develop passage criteria specific to adult and juvenile life stages to reference in design manual."

221 na ODOT "635 – 412 – 0035, Fish Passage Criteria, Line 435"

"Potential for OARs to clarify when and how the 6" criteria will be applied – Suggest either additional language to current definition of "Fishway" to read "means the set of human-built and/or operated facilities, structures, devices, and measures that together constitute, are critical to the success of, and were created for the sole purpose of providing upstream fish passage at artificial or natural obstructions which create a discontinuity between upstream and downstream water or bed surface elevations. This includes features that span the active channel width, constructed with the intention of providing fish passage and maintaining streambed integrity, including weirs constructed of artificial and or natural materials such as logs, boulders, or other similar structures".

Or;

"This criteria may NOT apply to some features that are constructed for the purposes of providing fish passage and maintaining streambed integrity, provided they are constructed from natural materials, and where the stream profile in the appropriate reference reach has steep (> 3% ) gradients or other physical constraints."

222 na ODOT "635 – 412 – 0035, Fish Passage Criteria, Line 457"  
 "Recommend that "or Road stream crossing structure" be added following "fishway", or add in applicable section: "passive trash racks are allowed on existing culverts (or fish ways) if set at or above the OHWE, demonstrate a need to maintain infrastructure integrity and safety, clearly demonstrate a benefit to fish passage through the culvert, and have the spacing that follows as presented in the OARs.""

223 na ODOT "635 – 412 – 0035, Fish Passage Criteria, Line 478:"  
 "Ascertaining what ODFW considers as allowable parameters for these elements has been problematic. It is suggested that roughened channels, etc have their own section side by side section with or within the stream simulation section."

224 na ODOT "635 – 412 – 0035, Fish Passage Criteria, Line 501" "State  
 that simulation is assumed when a crossing and it's elements:  
 - Span the 100-year event or;  
 - Includes a clear span that meets or exceeds 1.5 x Avg ACW  
 - Includes a clear span that meets or exceeds an entrenchment ratio (ER) up to 2.2. Clear Span = ER x Avg ACW."

225 na ODOT "635 – 412 – 0035, Fish Passage Criteria, Line 504" "State  
 that the ACW shall reflect the average ACW found within the reach as controlled by the adjacent landforms and outside the influence of the crossing or other artificial features such as rip-rap, walls, etc."

226 na ODOT "635 – 412 – 0035, Fish Passage Criteria, Line 530" "Please  
 retain this language. If the outgoing tidal exchange is an issue regarding scour and site integrity, there is a reliance on the engineer to design appropriately."

227 na ODOT "635 – 412 – 0035, Fish Passage Criteria, Line 623;"  
 Recommended to add "Upstream and or downstream passage may be reduced or precluded for the purposes of maintenance or construction no longer than the IWWW or times specified by the Department determines that the species life history strategy or fitness does not require it."

228 na ODOT "635 – 412 – 0035, Fish Passage Criteria, Line 640" "It is  
 recommended to allow the flexibility to use the field with prescribed monitoring. This is important to represent real world passage conditions, durability, and maintenance requirements."

229 na ODOT "635 – 412 – 0040, Mitigation Criteria, Line 681;"  
 "Provide reference to guidance / criteria in OAR. It is recommended that this include sideboards including what constitutes enhancement and restoration (metrics?). Also, a formula or ratio is recommended as well. Similar to DSL."

230 na ODOT "635 – 412 – 0040, Mitigation Criteria, Line 684" Are these  
 defined anywhere? If there are such actions there needs to be something on the ODFW Fish Passage website. Recommend OARs direct applicants to source of these.

- 231 na ODOT "635 – 412 – 0040, Mitigation Criteria, Line 688;"  
"Rerword to include "mitigation completed ahead of a waiver approval will be done at the applicants own risk, and will not sway an assessment of net benefit"."
- 232 na ODOT "635 – 412 – 0040, Mitigation Criteria, Line 702" Recommend  
clarification on need to provide MORE benefit compared to providing passage at trigger location
- 233 na ODOT Climate change and 1.5X ACW Proposal "General question for  
consideration: Is this proposed change based on biological need and ability of fish to navigate a road  
stream crossing? Or; is this proposed change in relation to road stream crossing capacity to convey flood  
flows, and potential changes in watershed systems resulting from climate change projections?"

(Consideration For): The ODOT Fish Passage Program agrees that stream simulation approaches often dictate a crossing width greater than measured ACW for a given project. This is a crucial component for stream morphology and process, allowing for bedload and large woody debris to pass through the road stream crossing structure. From a biological perspective, road stream crossing widths can be required to be greater than 1X ACW (or 1.5x ACW), provided a low flow channel is initially installed and monitored over the project life to ensure volitional fish passage is provided.

(Consideration Opposed): A statewide standard of requiring 1.5X ACW on stream crossing structures may not be appropriate for all crossings in regards to capacity and modeled climate change scenarios. ODOT is currently updating the Hydraulic Design Manual to incorporate best engineering practices for sizing stream crossing structures for capacity, and incorporates projected climate change impacts. It is ODOT's preference for ODFW staff to work closely with ODOT designers, engineers, and geomorphologists during project development to ensure crossing dimensions are appropriate for the individual location based on physical conditions and best available data. Recommend aligning with USFS standards of 1.2X, or with WA standards: 1.2X+2)."

234 na ODOT General Pertaining to Bridges Clarity on triggers: "...through  
time makes significant repairs or patches to over 50 percent of the linear length of a culvert or over 50  
percent of the structural elements of a bridge"

235 na ODOT General Pertaining to Bridges "How is "50 percent of the  
structural elements of a bridge" measured? There seems to be many ways this can be interpreted,  
clarity is suggested."

236 na ODOT General Pertaining to Bridges ""50% of the structural  
elements of the bridge. Structural elements do not include road wearing surfaces, deck, guard rails,  
sidewalks, or atheistic elements. Structural elements do include bridge bents, footings, major sub  
structure, riprap or other bank and scour protective elements, etc" or similar. 50% is per repair incident,  
not cumulatively over all time – no way to track this."

237 na ODOT Bridge Maintenance "Comment Received, and relates to  
definition of trigger event on bridges requiring clarity. "ODOT needs the ability to be able to do  
maintenance on deteriorated timber piles to keep bridges in service and not trigger fish passage. Even if  
a pile is repaired in place, the repair may be slightly larger than the original pile. Or, perhaps another pile  
needs to be added. We should not have to replace a bridge simply because we can't do reasonable  
maintenance on it.""

238 na Conservation Angler New Policy Intent Section Applies to both draft Policy Intent Proposals This limiting language is not present in the statute and should be deleted.

239 na Conservation Angler Definition Section : AO Definition "It is possible that an artificial obstruction that does not completely cross a water-body may also obstruct, block or unreasonably delay migration."

240 na Conservation Angler Definition Section : AO Definition The list of human-made devices should include bridges - which may create an artificial obstruction - an example of this is the Hood Canal Floating Bridge in WA which significantly delays steelhead migration and makes them very vulnerable to predation as well.

241 na Conservation Angler Definition Section: Construction There is a problem with defining or establishing numeric thresholds that trigger the statute's requirements when it results in management decisions to partition work in increments under the threshold when either the work or the obstacle impairs fish passage.

242 na Conservation Angler Definition Section: Fish Passage "The use of this term appears undefined in statute or elsewhere in this rule - and yet refers to a Department determination of what is the ""weakest"" fish and life history stage. What does ""weakest"" mean - does it refer to population status or ability to swim? What are the criteria that are used in this determination?"

243 na Conservation Angler Definition Section: Roughened Channel "There needs to be some refinement of this definition to ensure a distinction between a what is a fishway and what is a stream if it is envisioned that a ""roughened channel"" can encompass the entire channel. It appears quite unclear as currently written."

244 na Conservation Angler Definition Section: Stream "The definition of ""stream"" and the definition of ""bed"" need some alignment.  
TCA supports addressing fish passage for intermittent streams that may only carry streamflow during very short but critical periods."

245 na Conservation Angler Definition Section: Trask Rack "Typo ""Materials"""

246 na Conservation Angler Definition Section: Volitional "TCA understands volitional passage to be a fish passage event where the fish passes upstream of an obstruction or fish passage structure on its own power and at any time it chooses to pass over the obstruction or passage structure. The phrase ""with minimal delay"" adds an important temporal component to passage but since it appears undefined, it may not be very helpful. Perhaps there is a better overall definition for ""volitional passage"" that would fit."