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May 4, 2021

Via email

Mr. Greg Apke
Statewide Fish Passage Program Leader
Oregon Department of Fish and Wildlife
4034 Fairview Industrial Drive SE
Salem, OR 97302

Mr. Apke:

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.

Please find attached to this letter PacifiCorp's comments and proposed rule revisions for consideration by ODFW's Rules Advisory Committee. If you or the committee would like to discuss, please contact me at todd.olson@pacificorp.com.

Thank you for your consideration of these comments and suggested rule revisions.

Sincerely,

Todd Olson
Director, Licensing and Compliance
Renewable Resources
PacifiCorp

cc: Steve Albertelli, Fish Passage Task Force Member Representing Water User Groups and member of Rules Advisory Committee

Attachment

Attachment

PacifiCorp comments on the Oregon Administrative Rules 635-412-.

Section/Line Number	Comment/Proposed Revision
Introduction (New)	<p>RAC members have suggested an introductory statement of policy and intent. Our suggested language is as follows:</p> <p>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.</p>
Definitions (-0005; New)	<p>“Appreciable benefit” means that fish passage at an Artificial Obstruction would provide fish with access to existing habitat of the type, duration, frequency, quality, <i>and</i> 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.</p>
Definitions (-0005 (b)(A)); Line 22 and 23	<p>“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.</p> <p>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.</p>
Definitions (-0005 (b)(A)(i)); Line 24 and 25	<p>Insert between (i) and (ii) the following:</p> <p>(ii) The major replacement is for the purpose of addressing dam safety deficiencies and does not increase operating storage or diversion capacity.</p> <p>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.</p>
Definitions (-0005 (18)); Line 75	<p>Suggest striking “with minimal stress” as it is a subjective term and there is a better criterion below (physiological injury).</p>

Definitions (-0005 (21)); Lines 84-85	Suggest the following edit: “...flow into the waterway <u>downstream of an artificial obstruction</u> 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, <u>where the proposed action creates a new Artificial Obstruction or increases the severity of an existing Artificial Obstruction</u> including but not limited to licensing, relicensing, reauthorization or the granting of new water rights <u>that affect availability of instream flows downstream of the artificial obstruction...</u> ”
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 <u>and their life stages</u>that <u>are obligated to migrate...</u> ”
Definitions (-0005 (41)); Line 163	Suggested text: “...of an instream structure <u>discharging flow to a receiving water body.</u> ”
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 <u>on the current and future</u> the needs of native migratory fish.”
Prioritization (-0015 (2)(a)(A)); Line 228	Same edit as above: “The quantity of <u>current and future</u> native migratory fish habitat which is inaccessible.”

<p>Prioritization (-0015 (2)(a)(B)); Line 229</p>	<p>Need consistency with ODFW’s climate change policy and needed focus on science-based risk decision.</p> <p>Edit: The current and future quality of native migratory fish habitat which is inaccessible, <u>after incorporating best available science regarding likely impacts of climate change on the habitat.</u></p>
<p>Prioritization (-0015 (2)(b)); Lines 237-238</p>	<p>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.</p>
<p>Prioritization (-0015 (2)(c)); Lines 239-240</p>	<p>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.</p>
<p>Fish Passage Approval (-0020); New</p>	<p>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).</p> <p>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.”</p>
<p>Fish Passage Approval (-0020 (1)); Lines 264-265</p>	<p>Juvenile fish do not “migrate” upstream for a life cycle purpose.</p> <p>Edit: “.....providing passage for native migratory <u>fish per life cycle requirements.</u>”</p>
<p>Fish Passage Waivers and Exemptions (-0025 (2)); Lines 320-324</p>	<p>A discussion of the relative value of anadromous species benefits versus resident species benefits should be provided here or elsewhere.</p> <p>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.</p>
<p>Fish Passage Waivers and Exemptions (-0025 (4)); Lines 328-333</p>	<p>Insert these or similar revised statements as subordinates under (4):</p> <p>(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);</p> <p>(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</p>

	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	<p>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.</p> <p>Edit: “.....whether the waiver request meets the requirements of subsection (1) or the exemption request meets the requirements of subsections (4) and (5), <u>including any biological benefits resulting from conditions of a Clean Water Act Section 401 water quality certification.</u>”</p>
Fish Passage Criteria (-0035 (11)(b)); Lines 654-659	<p>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.</p> <p>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.</p>
Mitigation Criteria (-0040 (2)(b)); Line 682	<p>Edit: Restoration or enhancement of native migratory fish habitat <u>that fulfills obligate requirements of a migratory life-stage;</u></p>
Mitigation Criteria (-0040 (3)); Lines 686-688	<p>As noted in a previous comment, all proposed mitigation measures should be considered.</p> <p>Edit: Mitigation shall not include <u>may include</u> any activity that is a requirement or condition of any other agreement, law, permit, or authorization except <u>if the activity results from a judicial proceeding or settlement to address violations in state or federal law.</u> if it is also for fish passage mitigation of the same action at the artificial obstruction for a different level of government.</p>
Mitigation Criteria (-0040 (9)(c)); Line 705	<p>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.</p>