



DIVISION 412  
FISH PASSAGE

**635-412-0001**

**Purpose of the Fish Passage Policy**

**(1) The purpose of these rules is to further clarify and implement the State's fish passage statutes (ORS 509.580 through 509.910) and the Department's Climate and Ocean Change Policy (OAR 635-900-0001 through 635-900-0020) through the application of consistent standards.**

**(2) It is the policy of the State of Oregon to provide for upstream and downstream passage of native migratory fish at artificial obstructions.**

**(3) Changes in Oregon's future climate make fish passage even more critical, and a lack of fish passage within watersheds may threaten the existence of some native migratory fish species.**

**(4) It is therefore the intent of these rules to promote fish passage while recognizing cooperation and collaboration between public and private entities are necessary to accomplish the policy goal of providing fish passage for native migratory fish and to achieve the enhancement and restoration of Oregon's native migratory fish populations, as envisioned by the Oregon Plan (ORS 541.898).**

**Statutory/Other Authority:** ORS 496.138, ORS 509.585

**Statutes/Other Implemented:** ORS 496.012, ORS 509.585

**635-412-0005**

**Definitions**

(1) For the purposes of OAR 635-412-0010 through 635-412-0065 the following definitions shall apply.

(2) **"Abandonment" means to surrender, decommission, no longer use for an authorized purpose, or give up control.**

(3) "Active channel width" means the **naturally occurring cumulative** stream width(s) between the ordinary high water lines, or at the channel bankfull elevation if the ordinary high water lines are indeterminate.

(4) "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. **Preventing the migration of native migratory fish includes causing a significant delay in the time taken for passage of native migratory fish.**

(5) "Attraction flow" means ~~the flow~~ **water** that ~~emanates~~ **flows** from or near a fishway entrance in sufficient quantity, velocity, and location to attract **fish as they migrate** upstream ~~migrants~~ into the fishway, which can consist of gravity flow from the fish ladder and auxiliary water system flow added in or near the ~~lower-ladder~~ **fishway entrance**.

(6) "Bankfull elevation" means the point on a stream bank at which overflow into a floodplain begins.

(7) "Bed" or "bed and banks" means the physical container of the waters of this state, bounded on freshwater bodies by the ordinary high water line or bankfull stage, and on bays and estuaries by the limits of the highest measured tide.



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- 38 ([7]8) "Channel" means [a]that portion of a natural (perennial or intermittent) waterway that periodically or  
39 continuously contains moving waters of this state and has a definite bed and banks that serve to confine the water.
- 40 ([8]9) "Commission" means the Oregon Fish and Wildlife Commission.
- 41 ([9]10) "Construction" with respect to artificial obstructions subject to these rules, means:
- 42 (a) Original construction;
- 43 (b) Major replacement, which includes:
- 44 (A) [f]For existing dams and diversions, [~~excavation or replacement of 30 percent by structure-~~  
45 ~~volume of the dam, including periodic or seasonal replacements, unless~~either a single or  
46 cumulative:
- 47 (i) Excavation or replacement of 30 percent by structure volume;
- 48 (ii) Repairs, patches, or modifications to over 30 percent of the area of the upstream,  
49 downstream, or top face of the dam (measured above the natural ground gradeline  
50 that is used to impound water); or
- 51 (iii) Repairs, patches, or modifications different than the original configuration and  
52 that reduce, as determined by the Department, the adequacy of fish passage  
53 including periodic or seasonal replacements, unless [O]only checkboards are  
54 replaced[;], or in the case of existing seasonal dams or diversions, the artificial  
55 obstruction is in compliance with a water right(s), other regulatory requirements,  
56 and the artificial obstruction maintains an open channel connection with adequate  
57 water flow and depth conditions that meet OAR 635-412-0035 (2) when instream  
58 water is available and between the fish passage design streamflow range.
- 59 [(ii) Fish passage approval has already been obtained in writing from the Department for  
60 expected replacement.]
- 61 (B) For existing tide gates and flood gates, either a single or cumulative:
- 62 (i) [~~Cumulative r~~]Replacement of over 50 percent of the gate material, including hinges  
63 and the gate itself if detached;[~~or~~]
- 64 (ii) [~~Cumulative r~~]Removal, fill, replacement, or addition of over 50 percent of the structure  
65 supporting the gate, excluding road-stream crossing structures[;]; or
- 66 (iii) Replacements, repairs, patches, or modifications different than the original  
67 configuration and that reduce the adequacy of fish passage, as determined by the  
68 Department.
- 69 (C) For existing dikes, berms, levees, roads, culverts, bridges, or other artificial obstructions that  
70 segment estuaries, floodplains, or wetlands, either a single or cumulative:
- 71 (i) Activity or [A]activities defined under OAR 635-412-0005([9]10)(d) in all locations  
72 where current channels cross the artificial obstruction segmenting the estuary, floodplain,  
73 or wetland; or



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- 74 (ii) ~~[The cumulative r]~~Removal, fill, replacement, or addition of over 50 percent by volume  
75 of the existing material directly above an historic channel or historically-inundated area;  
76 and
- 77 (D) For other **existing** artificial obstructions, the **single or** cumulative removal, fill, replacement, or  
78 addition of over 50 percent of the ~~[structure]~~**device** ~~[comprising the artificial obstruction to native-~~  
79 ~~migratory fish migration]~~**that impedes fish passage**;
- 80 (c) Structural modifications that increase storage or diversion capacity; or
- 81 (d) ~~[For purposes of culverts, installation or replacement of a roadbed or culvert, further defined~~  
82 ~~as:]~~**Installation or replacement of a roadbed, culvert, or bridge that includes any activity that:**
- 83 ~~[(A) Roadbed installation or replacement at culverts includes any activity that:]~~
- 84 ~~[(i)A]~~ Creates a road ~~[which]~~**or bridge that** crosses a channel;
- 85 ~~[(ii)B]~~ Widens a roadfill footprint within a channel; ~~[or]~~
- 86 ~~[(iii)C]~~ Fills or removes over 50 percent by volume of the existing roadbed material directly above a  
87 culvert, except when this volume is exclusively composed of the top 1 foot of roadbed material~~[-];~~
- 88 ~~[(B) Culvert installation or replacement includes any activity that:]~~
- 89 ~~[(i)D]~~ Installs or constructs a new **road**, culvert, **bridge**, overflow pipe, apron, or wingwall within a  
90 channel;
- 91 ~~[(ii)E]~~ Extends existing culverts, aprons, or wingwalls within a channel, except one-time placements  
92 of culvert ends which do not extend greater than 1 foot beyond the adjacent road footprint~~[in place~~  
93 ~~prior to August 2004];~~
- 94 ~~[(iii)F]~~ ~~[Cumulatively through time m]~~Makes ~~[significant]~~**either single or cumulative** repairs, ~~[or~~  
95 ~~]patches,~~ **or modifications** to over 50 percent of the linear length of a culvert;\_
- 96 **(G) Makes either single or cumulative repairs, patches, or modifications to over 50 percent**  
97 **of the structural volume of a bridge or its elements except when this volume is exclusively**  
98 **composed of the traveling surface of a bridge deck;**
- 99 ~~[(iv)H]~~ Replaces any part of a culvert, except ends ~~[which]~~**that** become misaligned, **detached**, or  
100 eroded and ~~[which]~~are replaced to their original configuration;
- 101 ~~[(v)I]~~ At any point along the linear length of an **existing** culvert, reduces the entire inside perimeter  
102 of the culvert; or
- 103 ~~[(vi)J]~~ Makes replacements, repairs, patches, or modifications to an existing culvert **or bridge** that  
104 are different than the original configuration and ~~[which reduce any level of fish passage for native-~~  
105 ~~migratory fish with current access, as determined by the Department, to the culvert]~~**reduce, as**  
106 **determined by the Department, the adequacy of fish passage.**

107 **NOTE: see Department Memorandum for clarification of fish passage triggers and guidelines for bridges.**

108 (1[0]1) "Dam" means a structure, or group of structures with different functions, spanning or partially-spanning a  
109 stream in one location in order to pool water, facilitate the diversion of water, or raise the water surface elevation.

110 (1[4]2) "Department" means the Oregon Department of Fish and Wildlife.

111 (1[2]3) "Director" means the Director of the Oregon Department of Fish and Wildlife.



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112 (1[3]4) "Design streamflow range" means the range of flows within a stream, ~~[bracketed by]~~between the Low Fish  
113 Passage Design Flow and the High Fish Passage Design Flow, for which a fishway or other structure shall  
114 provide fish passage.

115 (1[4]5) "Emergency" means unforeseen circumstances materially related to or affected by an artificial obstruction  
116 that, because of adverse impacts to a population of native migratory fish, requires immediate action.

117 (1[5]6) "Estuary" means a body of water semi-enclosed by land and connected with the open ocean within which  
118 salt water is usually diluted by fresh water derived from the land. "Estuary" includes all estuarine waters, tidelands,  
119 tidal marshes and submerged lands extending upstream to the head of tidewater. However, for the purposes of  
120 these rules, the Columbia River Estuary extends to the western edge of Puget Island.

121 (1[6]7) "Exclusion barrier" means a structure placed that prevents fish passage for the benefit of native migratory  
122 fish.

123 **(18) "Exemption" means not providing fish passage at an artificial obstruction when either mitigation in**  
124 **lieu of providing fish passage through a waiver as defined in ORS 509.585(9)(a)(A) is authorized, an**  
125 **artificial obstruction has been granted a legal waiver as defined in ORS 509.585(9)(a)(B), or a finding that**  
126 **there is no appreciable benefit to providing fish passage at the artificial obstruction as defined in ORS**  
127 **509.585(9)(a)(C).**

128 (1[7]9) "Experimental fish passage structure" means a fish passage structure based on new ideas, new technology,  
129 or unique, site-specific conditions determined by the Department to not be covered by existing fish passage criteria  
130 but to have a reasonable possibility of providing fish passage.

131 (~~1[8]20~~) "Fish passage" means the ability, by the weakest native migratory fish and life history stages determined  
132 by the Department to require passage at the site, to move either volitionally or by trap collection and transport if  
133 **consistent with requirements of OAR 635-412-0035(6)**, with minimal stress, minimal delay, and without physical  
134 or physiological injury upstream and downstream of an artificial obstruction.

135 (~~1[9]21~~) "Fish passage structure" means any human-built structure that allows fish passage past an artificial  
136 obstruction, including, but not limited to, fishways and road-stream crossing structures such as culverts and  
137 bridges.

138 (2[0]2) "Fishway" means the set of human-built ~~[and]~~or operated facilities, structures, devices, and measures that  
139 together constitute, are critical to the success of, and were created for the ~~[sole]~~primary purpose of providing  
140 upstream or downstream fish passage at artificial or natural obstructions which create a discontinuity between  
141 upstream and downstream water or bed surface elevations.

142 (2[4]3) "Fishway entrance" means the component of a fishway that discharges attraction flow into the ~~[tailrace~~  
143 ~~and]~~waterway downstream of an artificial obstruction where upstream migrant fish enter the fishway.

144 (2[2]4) "Fishway pools" means discrete sections within a fishway separated by overflow weirs or non-overflow walls  
145 that create incremental water surface elevation gains and dissipate energy.

146 (2[3]5) "Floodplain" means that portion of a river valley, adjacent to the channel, which is built of sediments  
147 deposited during the present regimen of the stream and which is covered with water when the waterway overflows  
148 its banks at flood stage.

149 [~~24~~] "Forebay" means the water impounded immediately upstream of an artificial obstruction.]



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- 150 (2[5]6) "Fundamental change in permit status" means a change in regulatory approval for the operation of an  
151 artificial obstruction where the regulatory agency has discretion to impose additional conditions on the applicant,  
152 including but not limited to licensing, relicensing, reauthorization or the granting of new water rights, but not  
153 including water right transfers or, routine maintenance permits unless the[~~y~~] **action** involves **s** construction or  
154 abandonment of an artificial obstruction.
- 155 (2[6]7) "High fish passage design flow" means the mean daily average stream discharge that is exceeded 5 percent  
156 of the time during the period when the Department determines native migratory fish require fish passage.
- 157 (2[7]8) "Historically" means [~~prior to~~]**before** 1859 (statehood).
- 158 (2[8]9) "Inflow" means surface movement of waters of this state from a lower ground surface elevation to a higher  
159 ground surface elevation or away from the ocean.
- 160 ([29]30) "In-proximity" means within the same watershed or water basin, as defined by the Oregon Water  
161 Resources Department, and having the highest likelihood of benefiting the native migratory fish populations, as  
162 [~~defined~~]**determined** by the [~~Oregon~~]Department[~~of Fish and Wildlife~~], directly affected by an artificial obstruction.
- 163 (3[0]1) "Low fish passage design flow" means the mean daily average stream discharge that is exceeded 95  
164 percent of the time, excluding days with no flow, during the period when the Department determines native  
165 migratory fish require fish passage.
- 166 (3[4]2) "Mitigation" means alternatives to providing fish passage at an artificial obstruction **that provide a net**  
167 **benefit to native migratory fish**[~~as per ORS 509.585~~].
- 168 (3[2]3) "Native migratory fish" means **naturally or hatchery produced** native fish (as defined under OAR 635-007-  
169 0501) **indigenous (i.e., not introduced) to Oregon** that migrate for their life cycle needs. These fish include all  
170 sub-species and life history patterns of the following species listed by scientific name in use as of 20[05]22.  
171 Common names are provided for reference but are not intended to be a complete listing of common names, sub-  
172 species, or life history patterns for each species.
- 173 (a) *Acipenser medirostris* — Green [S]sturgeon;  
174 (b) *Acipenser transmontanus* — White [S]sturgeon;  
175 (c) *Amphistichus rhodoterus* — Redtail surfperch;  
176 (d) *Catostomus columbianus* — Bridgelip sucker;  
177 (e) [~~Catostomus luxatus/Deltistes luxatus~~] — Lost River sucker;  
178 (f) [~~Catostomus macrocheilus~~] — Largescale sucker;  
179 (g) *Catostomus microps* — Modoc sucker;  
180 (h) *Catostomus occidentalis* — Goose Lake sucker;  
181 (i) *Catostomus platyrhynchus* — Mountain sucker;  
182 (j) *Catostomus rimiculus* — Klamath smallscale sucker;  
183 (k) *Catostomus snyderi* — Klamath largescale sucker;  
184 (l) *Catostomus tahoensis* — Tahoe sucker;  
185 (l) ***Catostomus tsiltcoosensis* – Tyee sucker,**  
186 (m) *Catostomus warnerensis* — Warner sucker;  
187 (n) *Chasmistes brevirostris* — Shortnose sucker;



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- 188 **(o) *Deltistes luxatus* -- Lost River sucker;**
- 189 **(p) *Entosphenus folletti* -- Northern California brook lamprey;**
- 190 **(q) *Entosphenus lethophagus* -- Pit-Klamath brook lamprey;**
- 191 **(r) *Entosphenus minimus* -- Miller Lake lamprey;**
- 192 **(s) *Entosphenus similis* -- Klamath River lamprey;**
- 193 **(t) *Entosphenus tridentatus* -- Pacific lamprey;**
- 194 ~~([e]u) *Hypomesus pretiosus* — Surf smelt;~~
- 195 ~~([p]v) *Lampetra ayresii* — **Western** [R]river lamprey;~~
- 196 ~~[(q) *Lampetra lethophaga* — Pit-Klamath lamprey;~~
- 197 ~~(r) *Lampetra minima* — Miller Lake lamprey;~~
- 198 ~~(s) *Lampetra similes* — Klamath River lamprey;~~
- 199 ~~(t) *Lampetra tridentate* — Pacific lamprey;]~~
- 200 **(w) *Lampetra pacifica* -- Pacific brook lamprey;**
- 201 **(x) *Lampetra richardsoni* -- Western brook lamprey;**
- 202 ~~([u]y) *Oncorhynchus clarkii* — C[eastal, Lahontan and West Slope e]utthroat trout;~~
- 203 **(z) *Oncorhynchus gorbuscha* -- Pink salmon;**
- 204 ~~([v]aa) *Oncorhynchus keta* — Chum salmon;~~
- 205 ~~([w]bb) *Oncorhynchus kisutch* — Coho salmon;~~
- 206 ~~([x]cc) *Oncorhynchus mykiss* — Steelhead, Rainbow and Redband trout;~~
- 207 ~~([y]dd) *Oncorhynchus nerka* — Sockeye/Kokanee salmon;~~
- 208 ~~([z]ee) *Oncorhynchus tshawytscha* — Chinook salmon;~~
- 209 ~~([aa]ff) *Prosopium williamsoni* — Mountain whitefish;~~
- 210 ~~([bb]gg) *Ptychocheilus oregonensis* — Northern pikeminnow;~~
- 211 **(hh) *Ptychocheilus sp.* -- Siuslaw pikeminnow;**
- 212 ~~([ee]ii) *Ptychocheilus umpqua* — Umpqua pikeminnow;~~
- 213 ~~([dd]jj) *Salvelinus confluentus* — Bull trout;~~
- 214 ~~([ee]kk) *Spirinchus thaleichthys* — Longfin smelt;~~
- 215 ~~([ff]ll) *Thaleichthys pacificus* — Eulachon.~~
- 216 (3[3]4) "Net benefit" means an increase in the overall, in-proximity habitat quality or quantity that is biologically likely
- 217 to lead to an increased number of native migratory fish after a development action and any subsequent mitigation
- 218 measures have been completed.
- 219 **(35) "No Appreciable Benefit to Providing Fish Passage" means, as determined by the Department using its**
- 220 **best professional judgement, fish habitat that would be made accessible, or more accessible, in the reach**
- 221 **upstream or downstream of the artificial obstruction, does not currently provide, and will not foreseeably**
- 222 **provide before a review occurs in seven years pursuant to ORS 509.585(9)(b), habitat of the type, duration,**
- 223 **frequency, quality, or quantity necessary to support one or more life history stages of the native migratory**
- 224 **fish that are present, or will foreseeably be present before a review occurs in seven years pursuant to ORS**
- 225 **509.585(9)(b), upstream or downstream of the artificial obstruction.**



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- 226 (3[4]6) "Ordinary high water line" (OHWL) means the line on the bank or shore to which the high water ordinarily  
227 rises annually in season.
- 228 NOTE: See OAR 141-085-0010 for physical characteristics that can be used to determine the OHWL in the field.
- 229 (3[5]7) "Oregon Plan" means the guidance statement and framework described in ORS [541.405]541.898.
- 230 (3[6]8) "Over-crowding" means fish density within a pool's wetted volume is such that there is less than 0.25 cubic  
231 feet of water per pound of fish for the maximum number of fish expected to be present within the pool at the same  
232 time, as determined by the Department.
- 233 (3[7]9) "Road" means a cleared or built surface, and associated materials or measures for support and safety, used  
234 for the purpose of motorized or non-motorized movement between different locations.
- 235 (3[8]40) "Roadfill footprint" means the area occupied by soil, aggregate, ~~[and]~~or other materials or structures  
236 necessary to support a road, including, but not limited to, ~~[appurtenant features such as]~~wing walls, retaining walls,  
237 ~~[or]~~headwalls, **bridge supports, abutments, piers, or scour protection countermeasures.**
- 238 **(41) "Roughened channel" means a fishway designed to provide fish passage which encompasses the**  
239 **entire stream channel and may be over-steepened relative to the long-channel streambed profile, including**  
240 **but not limited to nature-like rock, rock ramp, or engineered-streambed fishways.**
- 241 (3[9]42) "Stream" means a body of running waters of this state moving over the surface of the land in a channel or  
242 bed including stream types classified as perennial or intermittent and channelized or relocated streams.
- 243 **(43) "Structure volume" means volumetric calculation of an existing dam or other artificial obstruction and**  
244 **its elements or components.**
- 245 (4[0]4) "Sub-basin" means a 4th-field hydrologic unit as defined by the U.S. Geological Survey.
- 246 (4[1]5) "Tailrace" means the water immediately downstream of an instream structure **discharging flow to a**  
247 **receiving water body.**
- 248 (4[2]6) "Temporary" means in place less than the in-water work period defined by the Department for a particular  
249 location.
- 250 (4[3]7) "Trap" means the set of human-built ~~[and]~~or operated facilities, structures, devices, ~~[and]~~or measures that  
251 hold fish and prevent them from passing volitionally.
- 252 **(48) "Trash rack" means a human built or placed measure used to prevent unwanted materials from**  
253 **entering a fishway, culvert, bridge, water diversion or other structures.**
- 254 **(49) "Trigger" means any event or activity that qualifies as construction, abandonment, or a fundamental**  
255 **change in permit status pursuant to Division 412 rules associated with or at any artificial obstruction that**  
256 **requires an owner or operator of that artificial obstruction to provide fish passage or alternatives to fish**  
257 **passage consistent with such rules. A trigger at one artificial obstruction physically connected to another**  
258 **artificial obstruction requires passage be addressed at both connected structure(s).**
- 259 ([44]50) "Unforeseen circumstances" means:
- 260 (a) An event that causes an existing human-made structure in the waters of th[e]is state which provides  
261 fish passage to become an artificial obstruction; or
- 262 (b) New fish population information indicating that an existing artificial obstruction is placing a local native  
263 migratory fish population in jeopardy.



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264 ([4]51) "Volitionally" means with minimal delay and without being trapped, transferred, or handled by any person, ~~unless specifically allowed under OAR 635-412-0035(6)].~~

266 **(52) "Waiver" means a fish passage exemption specifically allowed under OAR 635-412-0025 (1)(a) or (b) if**  
267 **the Commission or Department, as applicable, determines that alternatives to providing fish passage at an**  
268 **artificial obstruction, as proposed by the owner or operator of the artificial obstruction, provides a net**  
269 **benefit to native migratory fish.**

270 ([46]53) "Waters of this state" means natural waterways including all tidal and non-tidal bays, intermittent and  
271 perennial streams, constantly flowing streams, lakes, wetlands and other bodies of water in this state, navigable  
272 and non-navigable, including that portion of the Pacific Ocean that is within the boundaries of Oregon.

273 ([47]54) "Wetlands" means those areas that are inundated or saturated by surface or ground water at a frequency  
274 and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation  
275 typically adapted for life in saturated soil conditions.

276 **Statutory/Other Authority:** ORS 496.012

277 **Statutes/Other Implemented:** ORS 509.585, 509.590

278

279 **635-412-0010**

280 **Fish Passage Task Force**

281 (1) The **Fish Passage Task Force has nine members who are appointed by the** Director, ~~[shall appoint nine~~  
282 ~~members to constitute the Fish Passage Task Force.]~~

283 (2) Three members ~~[shall]~~ represent interests subject to the obligation to install **fish** passage at facilities they install,  
284 own or operate; three members ~~[shall]~~ represent fishing, environmental or conservation interests, and three  
285 members ~~[shall]~~ represent the general public.

286 (3) Members ~~[shall]~~ serve four year terms, and ~~[shall be]~~ **are** eligible for reappointment ~~[to the task force, except~~  
287 ~~that the initial designation of members shall appoint members of each interest group to a three year, four year or~~  
288 ~~five year term to establish a staggered system of new appointments for each interest group's members].~~

289 (4) The Task Force shall:

290 (a) Serve as the public advisory committee and advise the Director, **Department,** and Commission  
291 regarding rulemaking to implement the fish passage and ~~[waiver]~~ **exemption** requirements **consistent with**  
292 **applicable law;**

293 (b) Prioritize projects from the statewide inventory of artificial ~~[dams and]~~ obstructions for purposes of  
294 **restoration and** enforcement;

295 (c) Recommend to the Director, **Department,** and Commission appropriate levels of funding and special  
296 conditions applicable to projects installing **fish** passage or alternatives to **fish** passage resulting in a net  
297 benefit to native migratory fish;

298 (d) Select one of its members to serve as chair and one as vice chair ~~[of the Task Force];~~

299 (e) Review and recommend to the **Department or** Commission, **as applicable,** which projects should be  
300 exempt ~~[and changes to the list of projects exempt from passage requirements under section 8 of Section~~  
301 ~~2 of HB 3002 (2001)];~~





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- 302 (f) Report semiannually to the joint legislative committee created under ORS 171.551, or to the appropriate  
303 interim legislative committee with responsibility for salmon restoration or species recovery, advising the  
304 committee on matters related to fish passage;
- 305 (g) **After public [R]review and comment, review** applications for ~~[waivers]~~**exemptions** of the fish passage  
306 requirement, and advise the Commission **or Department, as applicable**, as to whether ~~[alternative-~~  
307 ~~measures result in a net benefit to native migratory fish]~~**an artificial obstruction should be deemed**  
308 **exempt pursuant to ORS 509.585(9)**;
- 309 (h) Perform such other duties relating to fish passage as requested by the Director or Commission;
- 310 (i) The ~~[t]Task [f]Force~~ shall meet at such times and places as may be determined by the chair or by a  
311 majority of members~~[-of the task force]~~.
- 312 (5) The Department's Fish Passage Coordinator ~~[shall]~~**serves** as staff for the ~~[t]Task [f]Force~~.
- 313 (6) The chair of the Task Force ~~[shall]~~**conducts** the meetings of the ~~[t]Task [f]Force~~, **serves** as the main contact  
314 point between the Department ~~[and]or~~ Commission and the Task Force, and performs ~~[such]~~**such** other duties as the  
315 Task Force ~~[shall]~~**sets**. The vice chair of the ~~[t]Task [f]Force~~ shall serve as chair if the chair is unavailable to carry  
316 out their duties~~[-of chair]~~.
- 317 (7) ~~[Members of the]~~Task Force **members** may not receive compensation for services as a member of the Task  
318 Force; however, in accordance with ORS 292.495, a member of the Task Force may receive reimbursement for  
319 actual and necessary travel or other expenses incurred in the performance of official duties.
- 320 **Statutory/Other Authority:** ORS 496.138, ORS 509.585
- 321 **Statutes/Other Implemented:** ORS 496.012, ORS 509.585
- 322
- 323 **635-412-0015**
- 324 **Prioritization**
- 325 (1) The Department shall establish **a list of priority artificial obstructions at which fish passage would provide**  
326 **the greatest benefit to native migratory fish** for **restoration and** enforcement purposes~~[-a list of priority artificial-~~  
327 ~~obstructions at which fish passage would provide the greatest benefit to native migratory fish]~~.
- 328 **(2) The priority list may exclude artificial obstructions where a legal agreement with the Department or**  
329 **Commission specifically indicates fish passage is not required.**
- 330 **(3) The Department will prioritize working collaboratively with the owners or operators of artificial**  
331 **obstructions on the priority list to establish fish passage.**
- 332 ~~[(2)]4~~ The priority list shall be based on the **current and future** needs of native migratory fish.
- 333 **(5) When determining placement of an artificial obstruction on the priority list, the Department may**  
334 **utilize]use existing Department information or professional judgment.**
- 335 **(6) When determining placement of an artificial obstruction on the priority list, the Department**~~[(a) The-~~  
336 ~~prioritization]~~ shall consider the following factors relative to each artificial obstruction for all native migratory fish  
337 currently or historically ~~[at]~~**in waters of this state** where the artificial obstruction **is located. These factors include**  
338 **but may not be limited to:**
- 339 ~~[(A)]a~~ The **current and future** quantity of native migratory fish habitat which is inaccessible;



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- 340 (B)b) The **current and future** quality of native migratory fish habitat which is inaccessible;
- 341 **(c) The reasonably foreseeable future quantity and quality of native migratory fish habitat given**
- 342 **known trends in climate change (e.g., changes in timing and quantity of streamflow and stream**
- 343 **temperatures);**
- 344 (C)d) Unique or limited native migratory fish habitat which is inaccessible, or should remain inaccessible
- 345 for fish management purposes;
- 346 (D)e) The biological status of the native migratory fish;
- 347 (E)f) The level of fish passage currently provided at the artificial obstruction;
- 348 (F)g) The presence of other artificial obstructions upstream ~~and~~**or** downstream and the timeframe native
- 349 migratory fish will be able to ~~utilize~~**use** restored passage; and
- 350 (G)h) Existing agreements with the Department regarding fish passage.
- 351 ~~[(b) The prioritization may utilize existing Department information or professional judgment in the absence~~
- 352 ~~of information specific to a given site.]~~
- 353 ~~[(c) The priority list shall contain one artificial obstruction per Oregon sub-basin, which shall be ranked~~
- 354 ~~across the state.]~~
- 355 (d)7) The Department shall field verify the information used for prioritization prior to **initiating any** enforcement
- 356 action[s].
- 357 (e)8) The Department shall ~~re-evaluate~~**make changes to** the priority list ~~with~~**using** the most recent information
- 358 after enforcement occurs at five priority artificial obstructions or as directed by the Commission.
- 359 (3)9) The Commission shall review~~[-approve, or]~~ **and** amend the priority list ~~[after the initial priority list is~~
- 360 ~~developed,]~~when the Department ~~[re-prioritizes]~~**changes the ranking of barriers on the list**, and ~~[no less-~~
- 361 ~~frequently than]~~**at least** once every five years.
- 362 (4)10) ~~Once the Commission has approved the priority list, t]~~The Department may order **an** ~~[person-]own[ing]er~~ or
- 363 operat~~ing]~~**or of** an artificial obstruction on the priority list who has been issued a water right, owns a lawfully
- 364 installed culvert or owns another lawfully installed obstruction to install fish passage or to provide mitigation
- 365 **[if]within a defined timeframe under any of the following circumstances:**
- 366 **(a) The owner or operator of an artificial obstruction refuses to work cooperatively with the**
- 367 **Department;**
- 368 (a)b) The Department can arrange for non-owner or non-operator funding of at least 60 percent of the cost
- 369 for fish passage design, construction, and installation; ~~and~~**or**
- 370 (b)c) The artificial obstruction is ranked in the top ten ~~[for the state or highest-]~~within a Department Region
- 371 on the priority list.
- 372 (5)11) Once the Department has arranged for non-owner or non-operator funding of at least 60 percent of the cost
- 373 for fish passage design, construction, and installation at an artificial obstruction the owner or operator **of an**
- 374 **artificial obstruction** has two years **from the Department's order** to:
- 375 (a) Install a fish passage structure according to a fish passage plan approved by the Department; or
- 376 (b) Provide mitigation that the Commission determines is a net benefit to native migratory fish.



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377 (12) The relative position of an artificial obstruction on the priority list should not be used as a basis for  
378 approving or denying an application for an exemption.

379 **Statutory/Other Authority:** ORS 496.012

380 **Statutes/Other Implemented:** ORS 509.585, 509.590

381

382 **635-412-0020**

383 **Fish Passage Approval**

384 (1) No ~~[person shall construct or maintain any]~~ artificial obstruction **may be constructed or maintained** across any  
385 waters of this state that are inhabited, or were historically inhabited, by native migratory fish without providing  
386 passage for native migratory fish.

387 (2) Prior to ~~[construction, fundamental change in permit status or abandonment of an artificial obstruction in any~~  
388 ~~waters of this state]~~ **a trigger**, an ~~[person]~~own[ing]er or operat[ing]or of an artificial obstruction shall obtain a  
389 determination from the Department as to whether native migratory fish are or were historically present in the waters  
390 **of this state where the artificial obstruction is located**, unless the owner or operator assumes the presence of  
391 native migratory fish.

392 (3) If the Department determines, or the owner or operator assumes, that native migratory fish are or were  
393 historically present in the waters **of this state where the artificial obstruction is located**, prior to ~~[construction,~~  
394 ~~fundamental change in permit status, or abandonment of the artificial obstruction]~~ **a trigger** the ~~[person]~~own[ing]er  
395 or operat[ing]or of the artificial obstruction shall either:

396 (a) Obtain ~~[from the]~~Department ~~[an]~~approval ~~[determination]~~of a fish passage plan that meets the  
397 requirements of OAR 635-412-0035 for the specific artificial obstruction[-];

398 (b) Obtain ~~[from the]~~Department ~~[a]~~programmatic approval of a fish passage plan for multiple artificial  
399 obstructions of the same type. The Department may also grant programmatic approval to an agent for  
400 multiple owners or operators of artificial obstructions of the same type. Programmatic approvals are only  
401 valid so long as the owner or operator complies with the conditions of the programmatic approval. The  
402 Department shall only provide programmatic approval if:

403 (A) Fish passage structures placed ~~[placed under]~~**subject to** the programmatic approval meet **and**  
404 **adhere to** criteria determined by the Department;

405 (B) The owner, operator, or agent demonstrates~~[-to]~~, **as determined by** the Department, prior  
406 experience providing or approving acceptable fish passage structures;

407 (C) The owner, operator, or agent reports installation information annually to the Department,  
408 including but not limited to the location and installation date of all fish passage structures placed  
409 under the programmatic approval;

410 (D) The owner or operator allows, or the agent requires owners or operators to allow, the  
411 Department to inspect fish passage structures ~~[placed under]~~**subject to** the programmatic approval  
412 at reasonable times; and



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- 413 (E) The owner, operator, or agent agrees to expeditiously remedy all fish passage structures  
414 ~~[placed under]~~**subject to** the programmatic approval which the Department finds do not meet the  
415 **applicable** criteria or conditions of th~~e~~**at** programmatic approval.
- 416 (c) Pursuant to ORS 527.710(6), install and maintain road-stream crossing structures on non-federal  
417 forestlands in compliance with State Board of Forestry, through the Oregon Department of Forestry, rules  
418 and guidelines~~[-. These rules and guidelines require concurrence by the Oregon]~~ **that the** Department ~~[of~~  
419 ~~Fish and Wildlife that they]~~**concurs** meet the purposes of the Department's fish passage program; **or**
- 420 (d) Obtain an ~~a~~ **waiver**~~]~~**exemption** from fish passage requirements for the artificial obstruction as provided in  
421 OAR 635-412-0025~~[- or~~
- 422 ~~(e) Obtain an exemption from fish passage requirements for the artificial obstruction as provided in OAR-~~  
423 ~~635-412-0025].~~
- 424 (4) Fish passage plans shall provide for and be implemented such that fish passage is installed at the artificial  
425 obstruction prior to completion of or by the end of the same in-water work period as the action which triggered fish  
426 passage requirements under subsection (2)~~[-]~~ **of this rule** unless:
- 427 (a) An owner or operator demonstrates to the Department an imminent or immediate threat to human  
428 safety **exists** which requires construction at a failed artificial obstruction prior to being able to complete the  
429 requirements of subsection (3), and the Department approves a fish passage plan in which the  
430 requirements of subsection (3) shall be met by the end of the next in-water work period or as soon as  
431 practicable **as determined by the Department**~~[- P]~~~~(providing passage at the time of construction is~~  
432 ~~preferred);~~
- 433 (b) The **Department or** Commission finds ~~[that]~~ additional time is necessary and appropriate given the size  
434 and scope of the project;
- 435 (c) Installation begins within ~~[this period]~~ **the same in-water work period as the action that triggered fish**  
436 **passage** and the Department finds that additional time to complete installation is necessary and  
437 appropriate given the size and scope of the project; or
- 438 (d) The Department finds that additional time is necessary and appropriate ~~[as part of]~~ **given** the terms and  
439 conditions of a negotiated settlement for a federal proceeding~~[-]~~ or ~~[in]~~ **to ensure** coordination with other  
440 federal requirements.
- 441 **Statutory/Other Authority:** ORS 496.138, ORS 509.585
- 442 **Statutes/Other Implemented:** ORS 496.012, ORS 509.585
- 443
- 444 **635-412-0025**
- 445 **Fish Passage ~~[Waivers and]~~Exemptions**
- 446 (1) **The Commission (or Department as applicable) may grant exemptions from fish passage requirements**  
447 **at an artificial obstruction if it is determined that:**
- 448 **(a) A lack of fish passage has been effectively mitigated;**
- 449 **(b) The owner or operator has received a legal waiver for the artificial obstruction from the**  
450 **Commission or the Department; or**



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451 **(c) There is no appreciable benefit to providing fish passage.**  
452 **(2)** Waivers from fish passage requirements shall be granted for an artificial obstruction if the Commission (or  
453 Department, as applicable) determines that mitigation rather than fish passage proposed by the person owning or  
454 operating the artificial obstruction provides a net benefit to native migratory fish.  
455 ~~[(2)3]~~ Net benefit to native migratory fish is determined by comparing the benefit to native migratory fish that would  
456 occur if the artificial obstruction had fish passage to the benefit to native migratory fish that would occur ~~[using]~~**as a**  
457 **direct result of the** proposed mitigation **actions**. To qualify for a waiver of the requirement to install fish passage,  
458 **proposed** mitigation ~~[shall]~~**must** result in a benefit to **native migratory** fish greater than ~~[that]~~**the benefit to such**  
459 **species that would be** provided by **fish passage at** the artificial obstruction ~~[-with fish passage]~~. The net benefit ~~[to~~  
460 ~~fish-]~~determination shall be based upon conditions that exist at the time of comparison **and should consider**  
461 **future conditions (e.g., climate change)**.  
462 ~~[(3)4]~~ Waivers shall be valid so long as the owner or operator continues to provide the agreed-upon mitigation~~[-~~  
463 ~~measures and until the waived artificial obstruction undergoes further construction, a fundamental change in permit-~~  
464 ~~status, or abandonment.]~~ **until the next fish passage trigger at the artificial obstruction or until the**  
465 **Commission or Department determines that circumstances have changed such that the waiver**  
466 **requirements no longer apply, pursuant to ORS 509.585(9)(b).**  
467 ~~[(4) The Commission (or Department as applicable) may grant exemptions from fish passage requirements at an~~  
468 ~~artificial obstruction if it is determined that:~~  
469 ~~(a) A lack of fish passage has been effectively mitigated;~~  
470 ~~(b) The owner or operator has received a legal waiver for the artificial obstruction from the Commission or~~  
471 ~~the Department; or~~  
472 ~~(c) There is no appreciable benefit to providing fish passage.]~~  
473 (5) ~~[For exemptions granted under subsection (4)(a) and (4)(b), the exemption continues only so long as the~~  
474 ~~original benefit of the mitigation is maintained]~~ **Exemptions granted under subsection (1)(c) of this rule shall be**  
475 **valid only so long as conditions that justified that exemption do not change, except if:**  
476 **(a) That exemption has expired;**  
477 **(b) A trigger occurs with respect to the artificial obstruction subject to that exemption; or**  
478 **(c) The Commission or Department determines that exemption should not be renewed.**  
479 (6) ~~[The Commission]~~ **At least once every seven years, the Department** shall review, ~~[at least once every seven~~  
480 ~~years exempt artificial obstructions, that do not have exemption expiration date]~~ **exemptions under subsection**  
481 **(1)(c) of this rule** to determine whether ~~[the]~~ **such** exemptions ~~[continue]~~ **be renewed**. ~~[The Commission~~  
482 ~~may revoke or amend an exemption if it finds that circumstances have changed such that the basis for the~~  
483 ~~exemption no longer applies.]~~ An exemption granted as a result of an action which triggered fish passage  
484 requirements under OAR 635-412-0020(2) tolls the trigger event until the exemption is revoked. **Prior to a seven-**  
485 **year review, exemptions under subsection (1)(c) of this rule may be reviewed by the Commission or**  
486 **Department.**



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487 (7) To obtain ~~[a waiver or]~~an exemption from fish passage requirements, an owner or operator of an artificial  
488 obstruction shall obtain from and submit to the Department an application for ~~[the]~~**either a waiver under**  
489 **subsection (1)(a) or an exemption under section 1(c) of this rule.**

490 (8) Based on application review, verification **of the information in the application** and **of** site-specific knowledge,  
491 Department staff shall provide a written benefit analysis of whether the ~~[waiver request]~~**proposal in the**  
492 **application** meets the **applicable** requirements~~[of subsection (1) or the exemption request meets the~~  
493 ~~requirements of subsections (4) and (5)].~~ If there is some level of ~~[fish-]~~passage at the artificial obstruction, but it  
494 does not meet the requirements of OAR 635-412-0035, ~~[that]~~**the effective level of** passage shall be factored into  
495 the Department's~~[not]~~ benefit analysis **as**~~[, allowing]~~ a reduction in required mitigation **measures.**

496 (9) To receive a waiver,~~[or an exemption under subsection (4)(a),]~~ an owner or operator of an artificial obstruction  
497 shall enter an agreement with the Commission (or Department as applicable) that clearly describes timelines,  
498 duties, responsibilities, and options regarding the **required** mitigation. The agreement shall state that the mitigation  
499 shall be completed prior to completion of or by the end of the same in-water work period as the action which  
500 triggered fish passage requirements under OAR 635-412-0020~~[(2)],~~ unless the Commission **or Department** finds  
501 that additional time is necessary and appropriate~~[-~~  
502 (a) ~~G]~~**given** the size and scope of the project; or  
503 (b) ~~T]~~**to** coordinate with requirements of federal proceedings.

504 **(10) The Commission or Department may require additional mitigation associated with a waiver if the**  
505 **mitigation cannot be or is not completed within the required time frame set forth in the agreement**  
506 **prescribed by subsection (9) of this rule.**

507 (1~~[0]~~**1**) Once the application, **Department's written benefit** analysis, and a draft agreement are completed, ~~[a~~  
508 ~~decision on whether the waiver or]~~**the** exemption **determination** ~~[shall be granted-]~~shall be made by:

509 (a) The Department:

510 (A) If it determines that the total stream distance, including tributaries, affected by the artificial  
511 obstruction for which the ~~[waiver or]~~exemption **under section 1(a) and 1(b)** is being sought is less  
512 than or equal to 1 mile ~~[to a natural barrier]~~**of current native migratory fish distribution;**

513 (B) ~~[If the request is for an exemption under subsection (4)(a) or (4)(b);]~~**For all exemptions**  
514 **proposed to have no appreciable benefit under section 1(c) of this rule; and**

515 (C) For re-authorization of an existing hydroelectric project subject to ORS 543A.030 to 543A.055  
516 and not subject to federal hydroelectric relicensing; ~~[and]~~**or**

517 (b) The Commission:

518 (A) In all other instances; or  
519 (B) If the Department refers a decision to the Commission~~[- or~~  
520 ~~(C) If the owner or operator files a protest of the Department's determination to the Commission].~~

521 (1~~[4]~~**2**) The decision to grant **an** ~~[waiver or]~~exemption shall include the determination described in subsection ~~[(1)~~  
522 ~~or (4)]~~**(8) of this rule** as well as approval of the agreement ~~[required in subsection (9)]~~**documenting applicable**  
523 **exemption conditions.**



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524 **(13) The Department may amend or approve changes to the agreement if the changes do not affect the**  
525 **benefit analysis and after a public review and recommendation by the Fish Passage Task Force.**  
526 (1[2]4) In addition to the Fish Passage Task Force [~~as prescribed in OAR 635-412-0010(4)(e) and (g)~~], the  
527 Department shall notify [~~local watershed council(s), local soil and water conservation district(s), identified~~  
528 ~~stakeholders, and others who have expressed an interest in fish passage issues or the specific waiver or exemption~~  
529 ~~request]~~ **the public** and provide an opportunity to **review and** comment on the **owner or operator's** request at  
530 least three weeks prior to [~~a decision on whether the waiver or exemption should be granted]~~ **an exemption**  
531 **determination.**

532 (1[3]5) The Commission [(for Department, as applicable)] may [~~require~~] **provide** further public comment prior to a  
533 decision on whether an [~~waiver or~~] exemption should be granted.

534 (1[4]6) The Department shall maintain a database of the locations of [~~waived and~~] exempted artificial obstructions  
535 and mitigation.

536 **Statutory/Other Authority:** ORS 496.012

537 **Statutes/Other Implemented:** ORS 509.585, 509.590

538

539 **635-412-0030**

540 **Fish Passage Protests**

541 (1) A person owning or operating an artificial obstruction may request alternative dispute resolution at any point in  
542 the process of determining fish passage requirements.

543 (2) The owner or operator of the artificial obstruction who objects to a determination made by the Department under  
544 these rules may file a protest with the Commission. Protests must be submitted in writing within 30 days [~~of receipt~~  
545 ~~of a written]~~ **from the date the Department posts the** determination on its website [~~from the Department]~~ and must  
546 include the grounds for protesting [~~the Department's]~~ **that** determination.

547 (3) The Commission may approve, deny, or modify the Department's **proposed or final** determination after  
548 sufficient opportunity for public review and comment.

549 (4) If a protest is not filed within 30 days **from the date the Department posts the** [~~of receipt of a written]~~  
550 determination from the Department, the **Commission's or** Department's determination [~~shall]~~ **becomes** a final  
551 order.

552 **Statutory/Other Authority:** ORS 496.138, ORS 509.585

553 **Statutes/Other Implemented:** ORS 496.012, ORS 509.585

554

555 **635-412-0035**

556 **Fish Passage Criteria**

557 (1) General requirements for fish passage are:

558 (a) Unless the owner or operator of an artificial obstruction chooses to provide year-round fish passage for  
559 all native migratory fish and life history stages, the Department shall determine:

560 (A) **The** [~~N~~] native migratory fish **that are** currently or **were** historically present at the site [~~which~~  
561 ~~require~~] **that must be provided** fish passage;



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562 (B) ~~The [L]~~life history stages ~~[which]~~the required fish passage **must accommodate**; and

563 (C) ~~[Dates]~~**The periods** of the year and~~[or]~~ **any** conditions **relevant to** when **fish** passage shall be  
564 provided for ~~[the]~~**such** life history stages and native migratory fish.

565 (b) The person submitting the fish passage plan to the Department for approval shall submit all information  
566 necessary **for the Department** to efficiently evaluate whether the design will meet fish passage criteria  
567 **including a description of how climate change impacts have been incorporated into the final**  
568 **design**;

569 (c) If site-specific circumstances indicate that the fish passage criteria are not adequate to provide fish  
570 passage **at the artificial obstruction**, the Department may require in writing that additional fish passage  
571 criteria be met;

572 (d) If **the Department determines that the existing or historically present** native migratory ~~[fish–~~  
573 ~~]~~**species** or site-specific circumstances warrant ~~[it, the Department may provide–]~~an exception to any  
574 specific fish passage criterion ~~[if]~~**then** the Department ~~[determines]~~**may approve such an exception** in  
575 writing **as long as it finds** that fish passage ~~[shall]~~**will likely** still be provided **at the artificial obstruction**;

576 (e) All fish passage structures shall be designed ~~[to take into–]~~consider~~[ation]~~**ing** their upstream and  
577 downstream connection and prevent undesirable impacts to fish passage, including but not limited to scour  
578 and headcuts;

579 (f) If ~~[joint state and–]~~federal approval **of a fish passage plan** is required, the Department shall take into  
580 account federal requirements during ~~[approval]~~**its review and determination**;

581 (g) ~~[Primarily at sites with little existing site information or questionable design solutions, t]~~The Department  
582 may require monitoring and reporting to determine if a fish passage structure meets applicable criteria  
583 and~~[or]~~ is providing fish passage **as intended and designed**; and

584 (h) The ~~[person–]~~own~~[ing]~~**er** or operat~~[ing]~~**or of** an artificial obstruction shall maintain the fish passage  
585 structure in such repair and operation as to provide fish passage of native migratory fish at all times  
586 required by the Department.

587 (2) Requirements for fish passage at dams and other artificial obstructions which create a discontinuity between  
588 upstream and downstream water surface or streambed elevations are:

589 (a) Fishways shall provide fish passage at all flows within the design streamflow range **and should be**  
590 **analyzed using estimates for the projected life expectancy of the structure**;

591 (b) The fishway entrance shall be located and adequate attraction flow shall be provided at one or more  
592 points where fish can easily locate and enter the fishway;

593 (c) Fishway water velocities shall:

594 (A) Range between 1 and 2 feet per second in transport channels;

595 (B) Average no greater than 5 feet per second in baffled-chute fishways, including but not limited to  
596 Alaska steeppasses and denils; and

597 (C) Not exceed 8 feet per second in discrete fishway transitions between the fishway entrance,  
598 pools, and exit through which fish must swim to move upstream, including but not limited to slots,  
599 orifices, or weir crests.





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- 600 (d) At any point entering, within, or exiting the fishway where fish are required to jump to move upstream,  
601 the maximum difference between the upstream and downstream water surface elevations shall be 6  
602 inches, except it shall be 12 inches if only **adult** salmon or steelhead [~~adults~~] require fish passage;
- 603 (e) In fishway locations through which fish must swim, water depths shall be a minimum of 6 inches where  
604 only juveniles require passage and 12 inches where adults require passage, except:
- 605 (A) Baffled-chute fishways, including but not limited to Alaska steeppasses and denils, shall have a  
606 minimum flow depth of 2 feet throughout the length of the fishway; and
- 607 (B) Water depths shall be a minimum of 2 feet within jump pools which shall be located  
608 downstream of any point entering, within, or exiting the fishway where fish are required to jump to  
609 move upstream.
- 610 (f) All fishway locations through which fish must swim shall be at least 12 inches wide, **except vertical slot**  
611 **weir width may be 6 inches where the Department has determined the artificial obstruction is**  
612 **required to provide fish passage only for juvenile native migratory fish;**
- 613 (g) Fishway pools shall:
- 614 (A) Be sized according to the **applicable** native migratory fish and life history stages [~~requiring-~~  
615 ~~passage-~~] and to avoid over-crowding;
- 616 (B) Have  $V \geq wQH/4$  at all flows within the design streamflow range, where:
- 617 (i) "V" is the water volume in cubic feet;
- 618 (ii) "w" is 62.4, the unit weight of water, in pounds per cubic foot;
- 619 (iii) "Q" is the fish ladder flow in cubic feet per second;
- 620 (iv) "H" is the energy head of pool-to-pool flow in feet; and
- 621 (v) 4 has a unit of foot-pounds per second per cubic foot.
- 622 (C) Where the fishway [~~bends~~] **changes direction** 90 degrees or more, have turning pools with a  
623 flowpath centerline double the length of non-turning pools; and
- 624 (D) Be placed at least every 25 feet of horizontal distance in baffled-chute fishways, including but  
625 not limited to Alaska steeppasses and denils;
- 626 (h) The fishway exit should be located to minimize the risk of fish unintentionally falling downstream of the  
627 artificial obstruction, **or into a water diversion;**
- 628 (i) Fishway trash racks shall:
- 629 (A) Allow for easy maintenance and debris removal;
- 630 (B) **Be maintained and cleaned as necessary to provide fish passage;**
- 631 **(C)** Have a minimum clear space between vertical members of [~~9~~]**10** inches, except[  
632 (i) 10 inches shall be provided if adult chinook are present; and  
633 (ii) ~~A]~~ **a** at least 4 inches shall be provided if only juveniles are present; and
- 634 [~~C]~~**D)** Have a minimum clear space between horizontal members of [~~12~~]**24** inches;
- 635 (j) The fishway shall:
- 636 (A) Have water temperatures which are within 1 degree Fahrenheit of the water entering the  
637 fishway;



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- 638 (B) Be designed to assure that fish do not leap out of the fishway;
- 639 (C) Have all **surfaces**, edges and fasteners which fish may contact ground smooth or chamfered;
- 640 (D) Not have protrusions **that** extend into the flow path of the fishway;
- 641 **(E) Not expose fish to any moving parts;**
- 642 **(F) Be designed to avoid turbulence and hydraulic transition flow conditions as much as**
- 643 **possible;**
- 644 ~~(E)~~**G** Have as much ambient lighting as possible **and avoid lighting transitions;**
- 645 ~~(F)~~**H** Have fishway components which are not detailed in OAR 635-412-0035(2), including but not
- 646 limited to auxiliary water systems, designed considering the most recent National Marine Fisheries
- 647 Service or U.S. Fish and Wildlife Service fish passage criteria and guidelines;~~and~~
- 648 ~~(G)~~**I** Meet the species-specific requirements in OAR 635-412-0035(7) if any of those native
- 649 migratory fish require fish passage~~;~~;
- 650 (k) Requirements for specific types of fishways include:
- 651 (A) Baffled-chute fishways, including but not limited to Alaska steeppasses and denils, shall not be
- 652 used in areas where downstream passage will occur through the baffled-chute fishway; **and**
- 653 (B) All fishways of a specific type with accepted configurations shall comply with those
- 654 configurations~~;~~ ~~and~~
- 655 ~~(C) Fish passage plans for stream channel-spanning weirs, roughened channels (including but not~~
- 656 ~~limited to nature-like, rock, or engineered stream fishways), and hybrid fishways (including but not~~
- 657 ~~limited to pool and chute ladders) which may combine criteria elements of natural streams and/or~~
- 658 ~~established fishway types (including but not limited to pool and weir, vertical slot, and baffled-chute~~
- 659 ~~fishways) shall clearly demonstrate how water depths, water velocities, water drops, jump pools,~~
- 660 ~~structure sizing, and fish injury precautions shall provide fish passage].~~
- 661 **(l) Requirements for fishways which encompass the entire channel include:**
- 662 **(A) Roughened channels or nature-like fishway designs shall:**
- 663 **(i) Meet the requirements of OAR 635-412-0035(3)(a)(A) (ii), (iv), (v)(II through VII), or**
- 664 **OAR 635-412-0035(3)(b);**
- 665 **(ii) Not have a slope that exceeds 6 percent, unless the average natural stream slope**
- 666 **exceeds 6 percent; and**
- 667 **(iii) Contain partially buried over-sized boulder or boulder clusters to provide**
- 668 **structural integrity and localized areas of lower water velocity.**
- 669 **(B) Stream channel-spanning weirs shall:**
- 670 **(i) Rise toward each bank from a low flow section centered along the thalweg of the**
- 671 **channel;**
- 672 **(ii) Have a downstream jump pool with a minimum depth of 2 feet;**
- 673 **(iii) Have a maximum difference in elevation of 6 inches between the lowest point on**
- 674 **the weir and the downstream pool's water surface control point;**
- 675 **(iv) Be sealed if fish passage during low flows is required;**



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676 (v) Be spaced at least 1.5 active channel widths apart if there are multiple weirs and  
677 recommend consideration of wider spacing when appropriate; and

678 (vi) Extend into the streambank a sufficient distance to protect against flanking;

679 (C) All fishway entrances or flow outlets shall be designed to provide passage or be  
680 designed to only be used during a period(s) defined by the Department.

681 (D) Fish passage plans for hybrid fishways that may combine features of several  
682 established fishway types shall have criteria established by the Department on a case-by-  
683 case basis and shall clearly demonstrate how water depths, water velocities, water surface  
684 jump height differentials or energy dissipation provides hydraulic conditions that achieves  
685 fish passage;

686 ([H]m) For downstream fish passage:

687 [NOTE: Fish screening and bypass requirements for diverted water are separate from these requirements.]

688 (A) Fish passage structures shall have an open water surface, except a submerged or enclosed  
689 conduit or orifice may be [utilized]used if:

690 (i) Acceptable guidance or collection mechanisms are used and kept free from debris;

691 (ii) Water depth is greater than 4 inches during all flows;

692 (iii) Water velocity is greater than 2 feet per second during all flows;

693 (iv) Water is not pumped;

694 (v) Conduits have smooth surfaces and avoid rapid changes in direction to preclude fish  
695 impact and injury; and

696 (vi) Conduits are at least 10 inches wide.

697 (B) Plunging flow moving past an artificial obstruction via spillways, outlet pipes, or some other  
698 means which may contain fish shall:

699 (i) At all flows, fall into a receiving pool of sufficient depth, depending on impact velocity  
700 and quantity of flow, to ensure that fish [and flow-]shall not impact the stream bottom or  
701 other solid features; and

702 (ii) Have a maximum impact velocity into a receiving pool, including vertical and horizontal  
703 velocity components, less than 25 feet per second; and

704 (C) Water depth over spillways or other artificial obstructions shall be greater than 4 inches  
705 during all flows.

706 (D) Fish screening and bypass devices installed to protect downstream migrating fish  
707 should be constructed to Department specifications and must meet Department criteria  
708 when installation is required.

709 (3) Requirements for fish passage at road-stream crossing structures such as bridges and culverts are:

710 (a) Stream Simulation Option (preferred design alternative) where:

711 (A) Open-bottomed and closed-bottom road-stream crossing structures shall have beds under or  
712 within the structure that:



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- (i) Are equal to or greater than the active channel width **multiplied by 1.2 plus 2 feet**, as measured at sufficient locations outside the influence of any artificial or unique channel constrictions or tributaries both upstream and downstream of the site;
- (ii) Are equal to the slope of, and at elevations continuous with, the surrounding long-channel streambed profile, unless the Department approves maintaining a pre-existing road-impounded wetland;
- (iii) Have, for open-bottomed road-stream crossing structures, a minimum of 3 feet vertical clearance from the active channel width elevation to the inside top of the structure;
- (iv) Maintain average water depth and velocities that simulate those in the surrounding stream channel; and
- (v) Are composed of material that:
  - (I) Assures the bed under or within the road-stream crossing structure is maintained through time;
  - (II) Is either natural (similar size and composition as the surrounding stream) or supplemented to address site-specific needs including, but not limited to, bed retention and hydraulic shadow;
  - (III) Contains partially-buried, over-sized rock~~[if the road-stream crossing structure is greater than 40 feet in length]~~;
  - (IV) Is mechanically placed during structure installation rather than allowed to naturally accumulate, unless the surrounding streambed is primarily bedrock;~~[-and]~~
  - (V) Excluding partially-buried over-sized rock, is, for closed-bottom road-stream crossing structures, at a minimum depth of 20 percent of the structure height~~[-and a maximum depth of 50 percent of the structure height]~~;~~[-and]~~
  - (VI) Considers bed scour and stability of the bed material due to the confined flow through the crossing structure. Major structural components within the crossing should be designed for structural stability at the 100 year flood flow; and**
  - (VII) Contains a low flow thalweg.**

(B) Trash racks shall:

- (i) Allow for easy maintenance and debris removal;**
- (ii) Be maintained, monitored, and cleaned as necessary to provide fish passage;**
- (iii) N[ot] extend below the active channel width elevation;**
- (iv) [and shall h]Have a minimum of [9]10 inches clear spacing between vertical members;**  
**[er]and**
- (v) Have a minimum clear space between horizontal members of 12 inches.**

**(C) Beaver exclusion culvert protection devices shall;**

- (i) Allow for easy maintenance and debris removal;**
- (ii) Be maintained, monitored, and cleaned as necessary to provide fish passage;**



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- 751 (iii) Have a minimum clear space between vertical and horizontal members of 6  
752 inches when only resident trout, *Entosphenus* and *Lampetra* species (lamprey)  
753 species are present;  
754 (iv) Be approved on a case by case basis in areas with salmon, steelhead, bull trout,  
755 or other large bodied species.
- 756 (D) Unvented and vented ford crossings shall meet the requirements of OAR 635-412-  
757 0035(2) and 635-412-0035(3)(b); and
- 758 (i) Be located outside of all known or suspected fish spawning areas such as pool  
759 tail-outs;  
760 (ii) Be constructed perpendicular to the stream flow;  
761 (iii) Minimize the width (perpendicular to streamflow);  
762 (iv) Maintain similar water depths and flow velocities as surrounding stream during  
763 the design stream flows; and  
764 (v) Have a low flow channel constructed within the crossing.
- 765 (E) Unvented ford crossings shall meet design criteria in OAR 635-412-0035(3)(a) and be  
766 constructed using materials approved by the Department that shall:
- 767 (i) Not be comprised of broken concrete, pavement or other debris;  
768 (ii) Be comprised of clean washed gravel and rock;  
769 (iii) Be countersunk and vertically align with the existing stream channel profile and  
770 gradient;  
771 (iv) Be designed to allow natural bedload transportation;  
772 (v) Be designed to withstand overtopping flood events;  
773 (vi) Be used during periods of no or low stream flow; and  
774 (vii) Be regularly inspected and maintained to provide fish passage.
- 775 (F) The Department may authorize construction of new fords in limited situations when it is  
776 the least impacting water crossing option. The following are examples of situations where  
777 the Department may authorize an unvented ford:
- 778 (i) The stream has extreme seasonal flow variations and low flows during anticipated  
779 ford use;  
780 (ii) The channel has low bank height and low gradient approaches;  
781 (iii) The stream has dynamic flood plains, such as alluvial fans; or  
782 (iv) The stream is subject to mass wasting events, debris transport, or extreme peak  
783 flows.
- 784 (b) Alternative Option: the Department may approve road-stream crossing structures for which clear  
785 justification~~is provided~~, based on fish performance, ~~and/or~~ fish behavior data, and **proposed post**  
786 **treatment** hydraulic conditions (e.g., water depths, water velocities, and gate time open)~~;~~ **is provided**  
787 **that demonstrates** that the alternative design ~~shall~~ provides fish passage.
- 788 (4) Requirements for fish passage at artificial obstructions in estuaries, and above which a stream is present, are:



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- 789 (a) Fish passage shall be provided at all current and historic channels;  
790 (b) Fish passage structures shall meet the criteria of OAR 635-412-0035(2) or (3), except fish passage  
791 structures shall be sized according to the cumulative flows or active channel widths, respectively, of all  
792 streams entering the estuary above the artificial obstruction; and  
793 (c) Tide gates and associated fish passage structures shall:  
794 **(A) Be a minimum of 4 feet wide unless the natural channel conditions are less than 4 feet**  
795 **wide;**  
796 **(B) Consist of an aluminum tide gate door or other equivalent light weight material;**  
797 **(C) Be a side hinged door configuration;**~~[and shall]~~  
798 **(D) Meet the requirements of OAR 635-412-0035(2) or 635-412-0035(3)(b) within the design**  
799 **streamflow range and for an average of at least 51 percent of tidal cycles, excluding periods**  
800 **when the channel is not passable under natural conditions;**  
801 **(i) Design streamflow range shall include tidal exchange, freshwater stream**  
802 **discharge and water storage volumes draining to the tide gate;**  
803 **(ii) Design streamflow range should consider sub-surface flows if appropriate at the**  
804 **project location;**  
805 **(E) Design invert elevation of tide gate and associated structure to be placed at 1 foot below**  
806 **Mean Lower Low Water elevation or as otherwise appropriate for the site to prevent perched**  
807 **low flow fish passage conditions and allow proper tide gate function;**  
808 **(F) Consider the use of pet doors, mitigators, self-managed and self-regulating tide gate**  
809 **devices to maximize fish passage, time of tide gate door openness, water exchange, and**  
810 **tidal inundation if the tide gate is associated with high priority restoration habitat; and**  
811 **(G) Submit a water management plan for projects implementing self-managed or self-**  
812 **regulating devices.**

813 **NOTE: Alternative self-regulating design features that meet the design criteria of this section will be**  
814 **considered for fish passage.**

815 (5) Requirements for fish passage at artificial obstructions in estuaries, floodplains, and wetlands, and above which  
816 no stream is present, are:

- 817 (a) Downstream Fish Passage **shall be provided:**  
818 (A) ~~[Downstream fish passage shall be provided a]~~After **any** inflow which ~~[may]~~contains **n**ative  
819 migratory fish;  
820 (B) ~~[Downstream fish passage shall be provided u]~~Until water has drained from the estuary,  
821 floodplain, or wetland, or through the period determined by the Department ~~[which]~~**that** shall be  
822 based on one, or ~~[a combination]~~**more** of, the following:  
823 (i) A specific date;  
824 (ii) Water temperature, as measured at a location or locations determined by the  
825 Department;  
826 (iii) Ground surface elevation;



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- 827 (iv) Water surface elevation; ~~and~~/or
- 828 (v) Some other reasonable measure[-]; **and**
- 829 (C) Egress delays may be approved by the Department based on expected inflow frequency [~~if~~-  
830 ~~there is~~]**and** suitable habitat **exists** and as long as passage is provided by the time the conditions  
831 in OAR 635-412-0035(5)(a)(B) occur;
- 832 (D) A minimum egress flow of 0.25 cubic feet per second (cfs) at one point of egress shall be  
833 provided;
- 834 (E) Egress flow of 0.5 cfs per 10 surface acres, for at least the first 100 surface acres of impounded  
835 water, shall be provided;
- 836 (F) All plunging egress flows shall meet the requirements of OAR 635-412-0035(2)(l)(B);
- 837 (G) If egress flow is provided by a pump, it shall be appropriately screened;
- 838 (H) The [~~minimum~~]-water depth and width through or across the point of egress shall be **at least 4**  
839 inches;
- 840 (I) The ground surface above the artificial obstruction shall be sloped toward the point(s) of egress  
841 to eliminate isolated pools **and topographic conditions that may entrain native migratory fish**;  
842 and
- 843 (J) An uninterrupted, open connection with a minimum water depth of 4 inches shall be present  
844 from the point of egress to the downstream waters of this state, unless another connection is  
845 provided as per OAR 635-412-0035(2)(l)(A).
- 846 (b) Upstream Fish Passage **shall be provided**: [~~a fishway or road-stream crossing structure with or without~~  
847 ~~a tide gate shall be provided during the period determined by~~]
- 848 **(A) If** the Department [~~if~~]**determines** there is current or historic native migratory fish spawning or  
849 rearing habitat within the estuary, floodplain, or wetland area impounded by the artificial  
850 obstruction[-]; **and**
- 851 **(B) During the period determined by the Department.**
- 852 (6) Requirements for fish passage **by trap collection and transport** [~~at traps are~~]**include**:
- 853 (a) A [~~collection~~] permit issued by the Department is required to **take fish when** operat[~~e~~]**ing** [~~all~~]-traps;
- 854 (b) Traps shall be constructed **and operated** to prevent physical or physiological injury to native migratory  
855 fish;
- 856 (c) Traps shall meet all requirements of OAR 635-412-0035(2)(g);
- 857 (d) Traps located within a fishway (i.e., "in-ladder" traps) shall not inhibit native migratory fish from entering  
858 the fishway or trap and shall be removed if the Department determines that fish are not entering the trap;
- 859 (e) **Traps should be constructed and operated so** [~~N~~]**native migratory fish** [~~shall be processed~~]**proceed**  
860 through traps with minimal [~~possible~~]-delay and **are removed from traps** as frequently as necessary to  
861 avoid over-crowding;
- 862 (f) All native migratory fish, excluding those which have approved take authorization from the Department  
863 and [~~which~~]**that** do not require fish passage as per OAR 635-412-0035(1)(a), shall be returned to the  
864 stream by one of the following methods:



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- 865 (A) Movement from the trap to immediately-adjacent water which has fish passage; or  
866 (B) Transport within a watered container, including but not limited to lifts, hoppers, locks, and  
867 trucks, from the trap to a location approved by the ~~[Commission]~~**Department; and**  
868 **(g) Traps shall be utilized where the feasibility of other fish passage structures or other site-specific**  
869 **considerations warrant use of trap collection and transport, or otherwise, the Department**  
870 **determines, using its professional judgment, trap collection and transport will result in an effective**  
871 **means of ensuring access to habitat above or below the artificial obstruction by native migratory**  
872 **species.**
- 873 (7) Additional requirements for specific native migratory fish are:
- 874 (a) *Acipenser* species (sturgeon):
- 875 (A) The fish passage structure shall not require fish to jump when entering, within, or exiting the  
876 structure;
- 877 (B) The fish passage structure, including trash racks, shall be sized to accommodate the largest  
878 individual expected to require fish passage;~~[-and]~~
- 879 (C) Non-volitional transport within a watered container ~~[shall]~~**may only** be allowed with Department  
880 approval~~[-]; and~~
- 881 **(D) Turning pools within the fish passage structure must be designed to allow for fish**  
882 **passage of a native migratory species at least 2 body lengths of the largest individual native**  
883 **migratory species currently or historically in the waters affected by the artificial obstruction.**
- 884 (b) *Catostomus*~~[-and]~~, *Chasmistes*, **and Deltistes** species (suckers):
- 885 (A) The fish passage structure shall not require fish to jump when entering, within, or exiting the  
886 structure;
- 887 (B) Fishways shall:
- 888 (i) ~~H~~**h**ave a maximum water velocity of 4 feet per second;
- 889 (C)~~ii~~ ~~[Fishways shall h]~~**h**ave a minimum water depth of 12 inches;
- 890 (D)~~iii~~ ~~[Fishways shall m]~~**m**aximize downstream flow between pools to avoid back eddies;
- 891 (E)~~iv~~ ~~[Fishways shall h]~~**h**ave curved walls within turning pools; and
- 892 (F)~~v~~ ~~[Fishways shall h]~~**h**ave a slope less than 4 percent.
- 893 (c) **Entosphenus and Lampetra** species (lamprey):
- 894 (A) Fishways **and associated structures (e.g., dams and spillways)** shall ~~[not have overhanging~~  
895 ~~surfaces;~~
- 896 (B) Fishways shall have **4 to 6 inch smooth** rounded ~~[or chamfered]~~**radii** edge surfaces **(floors,**  
897 **aprons, walls, and weir crests)** over which **Entosphenus and Lampetra** species may pass;
- 898 **(B) Fishways shall not have water surface to water surface jumps or overhanging surfaces**  
899 **unless fishway surfaces have a 4 to 6 inch smooth rounded radii (floors, walls and weir**  
900 **crests) over which Entosphenus and Lampetra species may pass;**
- 901 (C) Fishways shall, in locations with water velocities greater than 2 feet per second, have a  
902 passage route that:





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- 903 (i) Has a smooth, continuous, impermeable, uninterrupted surface or a simulated  
904 streambed;
- 905 (ii) Has water velocities over the structure's surface less than 8 feet per second; and  
906 (iii) Is wetted[-];
- 907 **(D) Denil fishways shall not be used unless an alternative passage route is provided;**  
908 **(E) Traps, picketed leads, picket weirs, auxiliary water supply grating or any other fishway**  
909 **grating shall have a spacing of less than 0.7 inches to preclude lamprey passage, or greater**  
910 **than 1.0 inch to allow lamprey to pass through;**
- 911 **(F) Fishway wall diffusers for auxiliary water supply shall be located at least 6 inches above**  
912 **finish floor of fishway pool;**
- 913 **(G) Auxiliary water floor diffusers shall be avoided if possible, but if necessary shall be**  
914 **located to provide at least 12 inches width of continuous smooth floor passage route along**  
915 **fishway floor;**
- 916 **(H) Fishway designs shall consider orifice flow if *Entosphenus* or *Lampetra* species are**  
917 **present.**
- 918 **(I) Orifices shall be positioned flush with the fishway floor and flush along one fishway wall;**  
919 **and**
- 920 **(J) Lamprey Passage Structures (Lamprey Ramps) shall be considered when retrofitting**  
921 **existing artificial obstructions to improve conditions for upstream migration of**  
922 ***Entosphenus* and *Lampetra* species.**
- 923 (d) *Oncorhynchus* species (trout and salmon): fish passage structures for *Oncorhynchus keta* (chum) shall  
924 not require fish to jump when entering, within, or exiting the structure.
- 925 (e) *Ptychocheilus* species (pikeminnow): fish passage structures shall meet the requirements of OAR 635-  
926 412-0035(7)(a).
- 927 (f) If more than one native migratory fish species requires passage at a site and the requirements for the  
928 different species are mutually exclusive, the Department shall determine **the required** passage criteria.
- 929 (8) Requirements for artificial obstruction removal are:
- 930 (a) Artificial obstruction removals shall follow the requirements of OAR 635-412-0035(10);
- 931 (b) If not completely removed, no parts of the remaining artificial obstruction shall:
- 932 (A) Constrict the stream channel; or
- 933 (B) Cause low flow depths less than the surrounding stream channel.
- 934 (c) After an artificial obstruction is removed the stream channel shall be restored; and
- 935 (d) The stream channel restoration shall address impacts to stream habitat caused by the artificial  
936 obstruction while in place and by its removal, including but not limited to upstream and downstream  
937 channel degradation, and provisions shall be made to address unexpected fish passage issues resulting  
938 from removal.
- 939 (9) Requirements for exclusion barriers are:



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- 940 (a) **When fish passage is not required or is provided by other means**, [E]xclusion barriers shall only  
941 be placed in the following situations[, when fish passage is not required or is provided by other means]:
- 942 (A) To guide fish to an approved fish passage structure or trap;
- 943 (B) To prevent fish from leaving waters of this state and entering human-made water supply  
944 conduits;
- 945 (C) To prevent fish from entering waters of this state associated with operations of another artificial  
946 obstruction that could lead to fish injury; or
- 947 (D) To achieve other fish management objectives approved in writing by the Department; and
- 948 (b) Exclusion barriers shall comply with National Marine Fisheries Service or U.S. Fish and Wildlife Service  
949 criteria.
- 950 (10) Requirements for fish passage during construction of fish passage structures and periods when temporary  
951 artificial obstructions are in place are:
- 952 (a) All fish passage structures shall be constructed and temporary artificial obstructions shall be in place  
953 only during the **Department approved** site-specific in-water work period[~~defined or approved by the~~  
954 ~~Department~~];
- 955 (b) At times indicated by the Department as per OAR 635-412-0035(1)(a), downstream fish passage shall  
956 be provided and:
- 957 (A) The outfall of a stream flow bypass system shall be placed to provide safe reentry of fish into  
958 the stream channel; and
- 959 (B) If downstream fish passage during construction is not required and stream flow is pumped  
960 around the site, the site shall meet Department screening [~~and~~]or bypass requirements.
- 961 (c) At times indicated by the Department as per OAR 635-412-0035(1)(a), upstream fish passage shall be  
962 provided and shall be based on the wetted-width or flows of the stream during the period of construction or  
963 temporary obstruction;
- 964 (d) In-stream construction sites shall be isolated from stream flow and fish;
- 965 (e) Prior to in-stream construction activities, all fish shall be safely collected, removed from the construction  
966 site or de-watered reach, and placed in the flowing stream **outside of the areas of project impacts** by an  
967 authorized person with an [~~collection permit~~]**ODFW Fish Rescue Salvage Authorization** issued by **and**  
968 **following the guidance of** the Department; and
- 969 (f) After construction, the construction site shall be re-watered **slowly and** in a **controlled** manner to  
970 prevent loss of downstream surface water as the construction site's streambed absorbs water.
- 971 (11) Requirements for experimental fish passage structures are:
- 972 (a) Experimental fish passage structures shall only be allowed in waters of th[e]is state after:
- 973 (A) Laboratory testing with native migratory fish or similar species indicates that the structure [~~is~~  
974 ~~feasible to~~]provides fish passage;
- 975 (B) Field testing with a prototype structure, at a location where existing fish passage will not be  
976 compromised and where fish passage does not need to be addressed under OAR 635-412-0020(2)  
977 and (3), indicates that the structure [~~is likely to~~]**will** provide fish passage; and



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978 (C) In addition to information needed to evaluate the structure's design for the specific location, the  
979 following are submitted to **and approved by** the Department~~[-and approved]~~:

980 (i) A written summary of the laboratory and field testing and how the results indicate that  
981 fish passage shall be provided;

982 (ii) A monitoring and reporting plan to determine if the installed experimental fish passage  
983 structure meets applicable design objectives and is providing fish passage; and

984 (iii) A modification plan for the experimental fish passage structure if monitoring indicates  
985 that fish passage is not being provided, including standard thresholds that **once met** will  
986 **require owner or operator to** initiate these modifications.

987 (b) If at any time an experimental fish passage structure is deemed by the Department in writing to not  
988 provide fish passage, the owner or operator, in consultation with the Department, shall make such  
989 modifications to the structure or operation as are necessary to provide fish passage, and, after a  
990 reasonable period, if modifications are deemed by the Department in writing to not provide fish passage, a  
991 fish passage structure that meets the standard criteria of OAR 635-412-0035 shall be installed as soon as  
992 practicable but no later than the end of the next complete in-water work period after notification by the  
993 Department, **unless the Department determines additional time is necessary**;

994 (c) The owner or operator of an experimental fish passage structure shall allow the Department to inspect  
995 experimental fish passage structures at reasonable times;

996 (d) Five years after the experimental fish passage structure is installed and fish are present to attempt  
997 passage a final monitoring report shall be submitted to the Department and the Department shall determine  
998 if the experimental fish passage structure provides fish passage; **and**

999 ~~[(e) If the Department determines that the experimental fish passage structure does not provide fish-~~  
1000 ~~passage, a fish passage structure that meets the standard criteria of OAR 635-412-0035 shall be installed-~~  
1001 ~~as soon as practicable but no later than the end of the next complete in-water work period after notification-~~  
1002 ~~by the Department; and~~

1003 ~~(f) After three experimental fish passage structures of the same design concept are placed in waters of the~~  
1004 ~~state and deemed to provide fish passage by the Department, the experimental fish passage structure shall~~  
1005 ~~no longer be considered experimental.]~~

1006 **(e) The Department may consider a fish passage structure to no longer constitute an experimental**  
1007 **fish passage structure after the Department finds three such structures of the same design concept**  
1008 **placed in waters of this state effectively provide fish passage.**

1009 **Statutory/Other Authority:** ORS 496.138, ORS 509.585

1010 **Statutes/Other Implemented:** ORS 496.012, ORS 509.585

1011  
1012 **635-412-0040**

1013 **Mitigation Criteria**

1014 (1) Mitigation shall not be allowed for artificial obstructions located in, or which would prevent access to, "Habitat  
1015 Category 1" habitat for native migratory fish as described in OAR 635-415-0025(1).



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- 1016 (2) Mitigation options include:
- 1017 (a) Providing fish passage at another pre-existing artificial obstruction which is not required to address fish
- 1018 passage under OAR 635-412-0015 or 635-412-0020;
- 1019 (b) Restoration or enhancement of native migratory fish habitat;
- 1020 (c) **Implementing**~~[Fish management]~~ **measures** ~~[te]~~**that** directly increase naturally-product~~[ing]~~~~ed~~~~[-wild,]~~
- 1021 native migratory fish populations, **especially sensitive or state or federally listed species through**
- 1022 **implementation of fish management measures**; and
- 1023 (d) **Implementation of** ~~[O]~~**other actions** specifically approved by the Commission **or Department**.
- 1024 (3) Mitigation shall not include any activity that is a requirement or condition of any other agreement, law, permit, or
- 1025 authorization except if it is also for fish passage mitigation of the same action at the artificial obstruction for a
- 1026 different level of government.
- 1027 (4) Unless a fish passage waiver for a site has already been obtained and mitigation has been provided, mitigation
- 1028 activities shall not be completed prior to a decision regarding a fish passage waiver.
- 1029 (5) The Department shall approve final mitigation **plans, including** designs **as applicable**, in writing prior to
- 1030 implementation.
- 1031 NOTE: Mitigation actions/**measures/activities** or concepts, absent specific designs, can be approved at the time a
- 1032 waiver decision is made.
- 1033 (6) Mitigation actions that provide fish passage shall meet the fish passage criteria contained in OAR 635-412-
- 1034 0035.
- 1035 (7) The Commission **or Department** may require the posting of a bond or other financial instrument~~[-acceptable to-~~
- 1036 ~~the Commission]~~ to cover the cost of mitigation actions or providing fish passage at the artificial obstruction if
- 1037 **implementation of** the mitigation action **or providing fish passage** does not achieve its goals.
- 1038 (8) **An** ~~[person-]own[ing]er~~ or operat~~[ing]~~**or of** an artificial obstruction is responsible for maintaining, monitoring,
- 1039 evaluating the effectiveness of, and reporting on mitigation.
- 1040 (9) Mitigation:
- 1041 (a) Shall be conducted in-proximity to the artificial obstruction, with respect to geographic scope;
- 1042 (b) Shall have habitat type and quality which is more beneficial than that affected by the artificial
- 1043 obstruction, if mitigation is passage into, restoration of, or enhancement of habitat;
- 1044 (c) Shall at least benefit the same native migratory fish species affected at the artificial obstruction;
- 1045 (d) Shall have a clear benefit for those native migratory fish species affected at the artificial obstruction if
- 1046 their status is listed as "threatened" or "endangered" under the state or federal Endangered Species Act;
- 1047 (e) Shall have standards for monitoring~~[-]~~ **and** evaluating, and **include** adaptive management ~~[which-~~
- 1048 ~~are]~~approved by the Department, ~~[which]~~**that** assure that the goal of the mitigation is achieved and
- 1049 maintained, and which are detailed in the ~~[waiver-]agreement~~ required in OAR 635-412-0025(9);
- 1050 (f) Shall be considered if the owner or operator of the artificial obstruction believes the feasibility of fish
- 1051 passage at the artificial obstruction is less than that for mitigation;



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1052 (g) ~~May require quantification of baseline conditions before a decision regarding a fish passage waiver is~~  
1053 ~~made in situations with no existing information, which require recent information, or which have no clear~~  
1054 ~~benefit;~~

1055 ~~(h)]~~ Shall attempt to restore or enhance historic conditions;

1056 ~~(i)]~~ To the extent possible, shall be consistent with existing native migratory fish or watershed  
1057 management plans;

1058 ~~(j)]~~ May qualify for financial incentives or grants issued by the Department ~~and the owner's or operator's~~  
1059 ~~cost for mitigation or passage at the artificial obstruction shall not be a factor in the Department's net~~  
1060 ~~benefit determination]. **The Department will not factor into its written benefit analysis the owner's or**~~

1061 **operator's cost for mitigation or fish passage at an artificial obstruction, nor any financial**  
1062 **incentives or grants issued by the Department;**

1063 ~~[(k) May require data collection and evaluation before a decision regarding a fish passage waiver is made~~  
1064 ~~in situations with no existing information, which require recent information, or which have no clear benefit;~~  
1065 ~~and]~~

1066 ~~[(l)]~~ Shall be consistent with the purpose and goals of the Oregon Plan.

1067 **(10) The Department or Commission, as applicable, in determining the sufficiency of proposed mitigation:**

1068 **(a) May require quantification of baseline conditions before a decision regarding a fish passage**  
1069 **waiver is made in situations with no existing information, which require recent of updated**  
1070 **information, or situations which have no clear benefit to native migratory fish species;**

1071 **(b) May require data collection and evaluation as directed by the Department, by the owner or**  
1072 **operator before a decision regarding a fish passage waiver is made in situations with no existing**  
1073 **information, which require recent information, or which have no clear benefit;**

1074 **(c) Shall consider the extent to which the proposed mitigation is likely to occur independent of a**  
1075 **fish passage waiver; and**

1076 **(d) Shall consider actions that anticipate the expected effects of climate change, which may include**  
1077 **but is not limited to effects to streamflows, water temperatures, sediment transport, fish passage**  
1078 **facility performance, biological responses, risk and uncertainty, and the importance of protecting**  
1079 **and restoring habitat for native migratory fish.**

1080 Statutory/Other Authority: ORS 496.138, ORS 509.585

1081 Statutes/Other Implemented: ORS 496.012, ORS 509.585