

1 Division 412  
2 FISH PASSAGE

3 **635-412-0001**

4 **Purpose of the Fish Passage Policy**

5 (1) The purpose of these rules is to further clarify and implement the State's fish passage statutes (ORS  
6 509.580 through 509.910) and the Department's Climate and Ocean Change Policy (OAR 635-900-0001  
7 through 635-900-0020) through the application of consistent standards.

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

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

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

16 **Statutory/Other Authority:** ORS 496.138 & ORS 509.585

17 **Statutes/Other Implemented:** ORS 496.012 & ORS 509.585

18 **History:**

19 [DFW 154-2022, adopt filed 12/19/2022, effective 01/01/2023](#)

20 **635-412-0005**

21 **Definitions**

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

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

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

27 (4) "Artificial obstruction" means any dam, diversion, dike, berm, levee, tide or flood gate, road, culvert or  
28 other human-made device placed in the waters of this state that precludes or prevents the migration of  
29 native migratory fish. Preventing the migration of native migratory fish includes causing a significant delay  
30 in the time taken for passage of native migratory fish.

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

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

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

38 (8) "Channel" means 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  
40 the water.

41 (9) "Commission" means the Oregon Fish and Wildlife Commission.

42 (10) "Construction" with respect to artificial obstructions subject to these rules, means:

43 (a) Original construction;

44 (b) Major replacement, which includes:

45 (A) For existing dams and diversions, either a single or cumulative:

46 (i) Excavation or replacement of 30 percent by structure volume;

47 (ii) Repairs, patches, or modifications to over 30 percent of the area of the  
48 upstream, downstream, or top face of the dam (measured above the natural  
49 ground gradeline that is used to impound water); or

50 (iii) Repairs, patches, or modifications different than the original configuration and  
51 that reduce, as determined by the Department, the adequacy of fish passage  
52 including periodic or seasonal replacements, unless only checkboards are  
53 replaced, or in the case of existing seasonal dams or diversions, the artificial  
54 obstruction is in compliance with a water right(s), other regulatory requirements,  
55 and the artificial obstruction maintains an open channel connection with  
56 adequate water flow and depth conditions that meet OAR 635-412-0035 (2)  
57 when instream water is available and between the fish passage design  
58 streamflow range.

59 (B) For existing tide gates and flood gates, either a single or cumulative:

60 (i) Replacement of over 50 percent of the gate material, including hinges and the  
61 gate itself if detached;

62 (ii) Removal, fill, replacement, or addition of over 50 percent of the structure  
63 supporting the gate, excluding road-stream crossing structures; or

64 (iii) Replacements, repairs, patches, or modifications different than the original  
65 configuration and that reduce the adequacy of fish passage, as determined by  
66 the Department.

67 (C) For existing dikes, berms, levees, roads, culverts, bridges, or other artificial  
68 obstructions that segment estuaries, floodplains, or wetlands, either a single or  
69 cumulative:

70 (i) Activity or activities defined under OAR 635-412-0005(10)(d) in all locations  
71 where current channels cross the artificial obstruction segmenting the estuary,  
72 floodplain, or wetland; or

73 (ii) Removal, fill, replacement, or addition of over 50 percent by volume of the  
74 existing material directly above an historic channel or historically-inundated area;  
75 and

76 (D) For other existing artificial obstructions, the single or cumulative removal, fill,  
77 replacement, or addition of over 50 percent of the device that impedes fish passage;

78 (c) Structural modifications that increase storage or diversion capacity; or

79 (d) Installation or replacement of a roadbed, culvert, or bridge that includes any activity that:

- 80 (A) Creates a road or bridge that crosses a channel;
- 81 (B) Widens a roadfill footprint within a channel;
- 82 (C) Fills or removes over 50 percent by volume of the existing roadbed material directly  
83 above a culvert, except when this volume is exclusively composed of the top 1 foot of  
84 roadbed material;
- 85 (D) Installs or constructs a new road, culvert, bridge, overflow pipe, apron, or wingwall  
86 within a channel;
- 87 (E) Extends existing culverts, aprons, or wingwalls within a channel, except one-time  
88 placements of culvert ends which do not extend greater than 1 foot beyond the adjacent  
89 road footprint;
- 90 (F) Makes either single or cumulative repairs, patches, or modifications to over 50  
91 percent of the linear length of a culvert;
- 92 (G) Makes either single or cumulative repairs, patches, or modifications to over 50  
93 percent of the structural volume of a bridge or its elements except when this volume is  
94 exclusively composed of the traveling surface of a bridge deck;
- 95 (H) Replaces any part of a culvert, except ends that become misaligned, detached, or  
96 eroded and are replaced to their original configuration;
- 97 (I) At any point along the linear length of an existing culvert, reduces the entire inside  
98 perimeter of the culvert; or
- 99 (J) Makes replacements, repairs, patches, or modifications to an existing culvert or bridge  
100 that are different than the original configuration and reduce, as determined by the  
101 Department, the adequacy of fish passage.

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

103 (11) "Dam" means a structure, or group of structures with different functions, spanning or partially-  
104 spanning a stream in one location in order to pool water, facilitate the diversion of water, or raise the  
105 water surface elevation.

106 (12) "Department" means the Oregon Department of Fish and Wildlife.

107 (13) "Director" means the Director of the Oregon Department of Fish and Wildlife.

108 (14) "Design streamflow range" means the range of flows within a stream, between the Low Fish Passage  
109 Design Flow and the High Fish Passage Design Flow, for which a fishway or other structure shall provide  
110 fish passage.

111 (15) "Emergency" means unforeseen circumstances materially related to or affected by an artificial  
112 obstruction that, because of adverse impacts to a population of native migratory fish, requires immediate  
113 action.

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

- 119 (17) "Exclusion barrier" means a structure placed that prevents fish passage for the benefit of native  
120 migratory fish.
- 121 (18) "Exemption" means not providing fish passage at an artificial obstruction when either mitigation in  
122 lieu of providing fish passage through a waiver as defined in ORS 509.585(9)(a)(A) is authorized, an  
123 artificial obstruction has been granted a legal waiver as defined in ORS 509.585(9)(a)(B), or a finding that  
124 there is no appreciable benefit to providing fish passage at the artificial obstruction as defined in ORS  
125 509.585(9)(a)(C).
- 126 (19) "Experimental fish passage structure" means a fish passage structure based on new ideas, new  
127 technology, or unique, site-specific conditions determined by the Department to not be covered by  
128 existing fish passage criteria but to have a reasonable possibility of providing fish passage.
- 129 (20) "Fish passage" means the ability, by the weakest native migratory fish and life history stages  
130 determined by the Department to require passage at the site, to move either volitionally or by trap  
131 collection and transport if consistent with requirements of OAR 635-412-0035(6), with minimal stress,  
132 minimal delay, and without physical or physiological injury upstream and downstream of an artificial  
133 obstruction.
- 134 (21) "Fish passage structure" means any human-built structure that allows fish passage past an artificial  
135 obstruction, including, but not limited to, fishways and road-stream crossing structures such as culverts  
136 and bridges.
- 137 (22) "Fishway" means the set of human-built or operated facilities, structures, devices, and measures that  
138 together constitute, are critical to the success of, and were created for the primary purpose of providing  
139 upstream or downstream fish passage at artificial or natural obstructions which create a discontinuity  
140 between upstream and downstream water or bed surface elevations.
- 141 (23) "Fishway entrance" means the component of a fishway that discharges attraction flow into the  
142 waterway downstream of an artificial obstruction where upstream migrant fish enter the fishway.
- 143 (24) "Fishway pools" means discrete sections within a fishway separated by overflow weirs or non-  
144 overflow walls that create incremental water surface elevation gains and dissipate energy.
- 145 (25) "Floodplain" means that portion of a river valley, adjacent to the channel, which is built of sediments  
146 deposited during the present regimen of the stream and which is covered with water when the waterway  
147 overflows its banks at flood stage.
- 148 (26) "Fundamental change in permit status" means a change in regulatory approval for the operation of  
149 an artificial obstruction where the regulatory agency has discretion to impose additional conditions on the  
150 applicant, including but not limited to licensing, relicensing, reauthorization or the granting of new water  
151 rights, but not including water right transfers or, routine maintenance permits unless the action involves  
152 construction or abandonment of an artificial obstruction.
- 153 (27) "High fish passage design flow" means the mean daily average stream discharge that is exceeded 5  
154 percent of the time during the period when the Department determines native migratory fish require fish  
155 passage.
- 156 (28) "Historically" means before 1859 (statehood).
- 157 (29) "Inflow" means surface movement of waters of this state from a lower ground surface elevation to a  
158 higher ground surface elevation or away from the ocean.
- 159 (30) "In-proximity" means within the same watershed or water basin, as defined by the Oregon Water  
160 Resources Department, and having the highest likelihood of benefiting the native migratory fish  
161 populations, as determined by the Department, directly affected by an artificial obstruction.

162 (31) "Low fish passage design flow" means the mean daily average stream discharge that is exceeded 95  
163 percent of the time, excluding days with no flow, during the period when the Department determines  
164 native migratory fish require fish passage.

165 (32) "Mitigation" means alternatives to providing fish passage at an artificial obstruction that provide a net  
166 benefit to native migratory fish.

167 (33) "Native migratory fish" means naturally or hatchery produced native fish (as defined under OAR 635-  
168 007-0501) indigenous (i.e., not introduced) to Oregon that migrate for their life cycle needs. These fish  
169 include all sub-species and life history patterns of the following species listed by scientific name in use as  
170 of 2022. Common names are provided for reference but are not intended to be a complete listing of  
171 common names, sub-species, or life history patterns for each species.

- 172 (a) *Acipenser medirostris* — Green sturgeon;
- 173 (b) *Acipenser transmontanus* — White sturgeon;
- 174 (c) *Amphistichus rhodoterus* — Redtail surfperch;
- 175 (d) *Catostomus columbianus* — Bridgelip sucker;
- 176 (e) *Catostomus macrocheilus* — Largescale sucker;
- 177 (f) *Catostomus microps* — Modoc sucker;
- 178 (g) *Catostomus occidentalis* — Goose Lake sucker;
- 179 (h) *Catostomus platyrhynchus* — Mountain sucker;
- 180 (i) *Catostomus rimiculus* — Klamath smallscale sucker;
- 181 (j) *Catostomus snyderi* — Klamath largescale sucker;
- 182 (k) *Catostomus tahoensis* — Tahoe sucker;
- 183 (l) *Catostomus tsiltcoosensis* — Tyee sucker,
- 184 (m) *Catostomus warnerensis* — Warner sucker;
- 185 (n) *Chasmistes brevirostris* — Shortnose sucker;
- 186 (o) *Deltistes luxatus* -- Lost River sucker;
- 187 (p) *Entosphenus folletti* -- Northern California brook lamprey;
- 188 (q) *Entosphenus lethophagus* -- Pit-Klamath brook lamprey;
- 189 (r) *Entosphenus minimus* -- Miller Lake lamprey;
- 190 (s) *Entosphenus similis* -- Klamath River lamprey;
- 191 (t) *Entosphenus tridentatus* -- Pacific lamprey;
- 192 (u) *Hypomesus pretiosus* — Surf smelt;

- 193 (v) *Lampetra ayresii* — Western river lamprey;
- 194 (w) *Lampetra pacifica* -- Pacific brook lamprey;
- 195 (x) *Lampetra richardsoni* -- Western brook lamprey;
- 196 (y) *Oncorhynchus clarkii* — Cutthroat trout;
- 197 (z) *Oncorhynchus gorbuscha* -- Pink salmon;
- 198 (aa) *Oncorhynchus keta* — Chum salmon;
- 199 (bb) *Oncorhynchus kisutch* — Coho salmon;
- 200 (cc) *Oncorhynchus mykiss* — Steelhead, Rainbow and Redband trout;
- 201 (dd) *Oncorhynchus nerka* — Sockeye/Kokanee salmon;
- 202 (ee) *Oncorhynchus tshawytscha* — Chinook salmon;
- 203 (ff) *Prosopium williamsoni* — Mountain whitefish;
- 204 (gg) *Ptychocheilus oregonensis* — Northern pikeminnow;
- 205 (hh) *Ptychocheilus sp.* -- Siuslaw pikeminnow;
- 206 (ii) *Ptychocheilus umpqua* — Umpqua pikeminnow;
- 207 (jj) *Salvelinus confluentus* — Bull trout;
- 208 (kk) *Spirinchus thaleichthys* — Longfin smelt;
- 209 (ll) *Thaleichthys pacificus* — Eulachon.

210 (34) "Net benefit" means an increase in the overall, in-proximity habitat quality or quantity that is  
 211 biologically likely to lead to an increased number of native migratory fish after a development action and  
 212 any subsequent mitigation measures have been completed.

213 (35) "No Appreciable Benefit to Providing Fish Passage" means, as determined by the Department using  
 214 its best professional judgement, fish habitat that would be made accessible, or more accessible, in the  
 215 reach upstream or downstream of the artificial obstruction, does not currently provide, and will not  
 216 foreseeably provide before a review occurs in seven years pursuant to ORS 509.585(9)(b), habitat of the  
 217 type, duration, frequency, quality, or quantity necessary to support one or more life history stages of the  
 218 native migratory fish that are present, or will foreseeably be present before a review occurs in seven  
 219 years pursuant to ORS 509.585(9)(b), upstream or downstream of the artificial obstruction.

220 (36) "Ordinary high water line" (OHWL) means the line on the bank or shore to which the high water  
 221 ordinarily rises annually in season.

222 **NOTE:** See OAR 141-085-0010 for physical characteristics that can be used to determine the OHWL in  
 223 the field.

224 (37) "Oregon Plan" means the guidance statement and framework described in ORS 541.898.

- 225 (38) "Over-crowding" means fish density within a pool's wetted volume is such that there is less than 0.25  
226 cubic feet of water per pound of fish for the maximum number of fish expected to be present within the  
227 pool at the same time, as determined by the Department.
- 228 (39) "Road" means a cleared or built surface, and associated materials or measures for support and  
229 safety, used for the purpose of motorized or non-motorized movement between different locations.
- 230 (40) "Roadfill footprint" means the area occupied by soil, aggregate, or other materials or structures  
231 necessary to support a road, including, but not limited to, wing walls, retaining walls, headwalls, bridge  
232 supports, abutments, piers, or scour protection countermeasures.
- 233 (41) "Roughened channel" means a fishway designed to provide fish passage which encompasses the  
234 entire stream channel and may be over-steepened relative to the long-channel streambed profile,  
235 including but not limited to nature-like rock, rock ramp, or engineered-streambed fishways.
- 236 (42) "Stream" means a body of running waters of this state moving over the surface of the land in a  
237 channel or bed including stream types classified as perennial or intermittent and channelized or relocated  
238 streams.
- 239 (43) "Structure volume" means volumetric calculation of an existing dam or other artificial obstruction and  
240 its elements or components.
- 241 (44) "Sub-basin" means a 4th-field hydrologic unit as defined by the U.S. Geological Survey.
- 242 (45) "Tailrace" means the water immediately downstream of an instream structure discharging flow to a  
243 receiving water body.
- 244 (46) "Temporary" means in place less than the in-water work period defined by the Department for a  
245 particular location.
- 246 (47) "Trap" means the set of human-built or operated facilities, structures, devices, or measures that hold  
247 fish and prevent them from passing volitionally.
- 248 (48) "Trash rack" means a human built or placed measure used to prevent unwanted materials from  
249 entering a fishway, culvert, bridge, water diversion or other structures.
- 250 (49) "Trigger" means any event or activity that qualifies as construction, abandonment, or a fundamental  
251 change in permit status pursuant to Division 412 rules associated with or at any artificial obstruction that  
252 requires an owner or operator of that artificial obstruction to provide fish passage or alternatives to fish  
253 passage consistent with such rules. A trigger at one artificial obstruction physically connected to another  
254 artificial obstruction requires passage be addressed at both connected structure(s).
- 255 (50) "Unforeseen circumstances" means:
- 256 (a) An event that causes an existing human-made structure in the waters of this state which  
257 provides fish passage to become an artificial obstruction; or
- 258 (b) New fish population information indicating that an existing artificial obstruction is placing a  
259 local native migratory fish population in jeopardy.
- 260 (51) "Volitionally" means with minimal delay and without being trapped, transferred, or handled by any  
261 person.
- 262 (52) "Waiver" means a fish passage exemption specifically allowed under OAR 635-412-0025 (1)(a) or (b)  
263 if the Commission or Department, as applicable, determines that alternatives to providing fish passage at

264 an artificial obstruction, as proposed by the owner or operator of the artificial obstruction, provides a net  
265 benefit to native migratory fish.

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

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

273 **Statutory/Other Authority:** ORS 496.138 & ORS 509.585

274 **Statutes/Other Implemented:** ORS 496.012 & ORS 509.585

275 **History:**

276 [DFW 154-2022, amend filed 12/19/2022, effective 01/01/2023](#)

277 DFW 2-2006, f. & cert. ef. 1-9-06

278 **635-412-0010**

279 **Fish Passage Task Force**

280 (1) The Fish Passage Task Force has nine members who are appointed by the Director.

281 (2) Three members represent interests subject to the obligation to install fish passage at facilities they  
282 install, own or operate; three members represent fishing, environmental or conservation interests, and  
283 three members represent the general public.

284 (3) Members serve four year terms and are eligible for reappointment.

285 (4) The Task Force shall:

286 (a) Serve as the public advisory committee and advise the Director, Department, and  
287 Commission regarding rulemaking to implement the fish passage and exemption  
288 requirements consistent with applicable law;

289 (b) Prioritize projects from the statewide inventory of artificial obstructions for purposes of  
290 restoration and enforcement;

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

294 (d) Select one of its members to serve as chair and one as vice chair;

295 (e) Review and recommend to the Department or Commission, as applicable, which projects  
296 should be exempt;

297 (f) Report semiannually to the joint legislative committee created under ORS 171.551, or to the  
298 appropriate interim legislative committee with responsibility for salmon restoration or species  
299 recovery, advising the committee on matters related to fish passage;

300 (g) After public review and comment, review applications for exemptions of the fish passage  
301 requirement, and advise the Commission or Department, as applicable, as to whether an artificial  
302 obstruction should be deemed exempt pursuant to ORS 509.585(9);



303 (h) Perform such other duties relating to fish passage as requested by the Director or  
304 Commission;

305 (i) The Task Force shall meet at such times and places as may be determined by the chair or by  
306 a majority of members.

307 (5) The Department's Fish Passage Coordinator serves as staff for the Task Force.

308 (6) The chair of the Task Force conducts the meetings of the Task Force, serves as the main contact  
309 point between the Department or Commission and the Task Force, and performs other duties as the Task  
310 Force sets. The vice chair of the Task Force shall serve as chair if the chair is unavailable to carry out  
311 their duties.

312 (7) Task Force members may not receive compensation for services as a member of the Task Force;  
313 however, in accordance with ORS 292.495, a member of the Task Force may receive reimbursement for  
314 actual and necessary travel or other expenses incurred in the performance of official duties.

315 **Statutory/Other Authority:** ORS 496.138 & ORS 509.585  
316 **Statutes/Other Implemented:** ORS 496.012 & ORS 509.585  
317 **History:**  
318 [DFW 154-2022, amend filed 12/19/2022, effective 01/01/2023](#)  
319 [DFW 10-2002, f. & cert. ef. 2-4-02](#)

320 **635-412-0015**  
321 **Prioritization**

322 (1) The Department shall establish a list of priority artificial obstructions at which fish passage would  
323 provide the greatest benefit to native migratory fish for restoration and enforcement purposes.

324 (2) The priority list may exclude artificial obstructions where a legal agreement with the Department or  
325 Commission specifically indicates fish passage is not required.

326 (3) The Department will prioritize working collaboratively with the owners or operators of artificial  
327 obstructions on the priority list to establish fish passage.

328 (4) The priority list shall be based on the current and future needs of native migratory fish.

329 (5) When determining placement of an artificial obstruction on the priority list, the Department may use  
330 existing Department information or professional judgment.

331 (6) When determining placement of an artificial obstruction on the priority list, the Department shall  
332 consider the following factors relative to each artificial obstruction for all native migratory fish currently or  
333 historically in waters of this state where the artificial obstruction is located. These factors include but may  
334 not be limited to:

335 (a) The current and future quantity of native migratory fish habitat which is inaccessible;

336 (b) The current and future quality of native migratory fish habitat which is inaccessible;

337 (c) The reasonably foreseeable future quantity and quality of native migratory fish habitat given  
338 known trends in climate change (e.g., changes in timing and quantity of streamflow and stream  
339 temperatures);

340 (d) Unique or limited native migratory fish habitat which is inaccessible, or should remain  
341 inaccessible for fish management purposes;

- 342 (e) The biological status of the native migratory fish;
- 343 (f) The level of fish passage currently provided at the artificial obstruction;
- 344 (g) The presence of other artificial obstructions upstream or downstream and the timeframe  
345 native migratory fish will be able to use restored passage; and
- 346 (h) Existing agreements with the Department regarding fish passage.
- 347 (7) The Department shall field verify the information used for prioritization prior to initiating any  
348 enforcement action.
- 349 (8) The Department shall make changes to the priority list using the most recent information after  
350 enforcement occurs at five priority artificial obstructions or as directed by the Commission.
- 351 (9) The Commission shall review and amend the priority list when the Department changes the ranking of  
352 barriers on the list, and at least once every five years.
- 353 (10) The Department may order an owner or operator of an artificial obstruction on the priority list who has  
354 been issued a water right, owns a lawfully installed culvert or owns another lawfully installed obstruction  
355 to install fish passage or to provide mitigation within a defined timeframe under any of the following  
356 circumstances:
- 357 (a) The owner or operator of an artificial obstruction refuses to work cooperatively with the  
358 Department;
- 359 (b) The Department can arrange for non-owner or non-operator funding of at least 60 percent of  
360 the cost for fish passage design, construction, and installation; or
- 361 (c) The artificial obstruction is ranked in the top ten within a Department Region on the priority list.
- 362 (11) Once the Department has arranged for non-owner or non-operator funding of at least 60 percent of  
363 the cost for fish passage design, construction, and installation at an artificial obstruction the owner or  
364 operator of an artificial obstruction has two years from the Department's order to:
- 365 (a) Install a fish passage structure according to a fish passage plan approved by the Department;  
366 or
- 367 (b) Provide mitigation that the Commission determines is a net benefit to native migratory fish.
- 368 (12) The relative position of an artificial obstruction on the priority list should not be used as a basis for  
369 approving or denying an application for an exemption.

370 **Statutory/Other Authority:** ORS 496.138 & ORS 509.585  
371 **Statutes/Other Implemented:** ORS 496.012 & ORS 509.585  
372 **History:**  
373 [DFW 154-2022, amend filed 12/19/2022, effective 01/01/2023](#)  
374 [DFW 2-2006, f. & cert. ef. 1-9-06](#)

375 **635-412-0020**  
376 **Fish Passage Approval**

- 377 (1) No artificial obstruction may be constructed or maintained across any waters of this state that are  
378 inhabited, or were historically inhabited, by native migratory fish without providing passage for native  
379 migratory fish.

380 (2) Prior to a trigger, an owner or operator of an artificial obstruction shall obtain a determination from the  
381 Department as to whether native migratory fish are or were historically present in the waters of this state  
382 where the artificial obstruction is located, unless the owner or operator assumes the presence of native  
383 migratory fish.

384 (3) If the Department determines, or the owner or operator assumes, that native migratory fish are or were  
385 historically present in the waters of this state where the artificial obstruction is located, prior to a trigger  
386 the owner or operator of the artificial obstruction shall either:

387 (a) Obtain Department approval of a fish passage plan that meets the requirements of OAR 635-  
388 412-0035 for the specific artificial obstruction;

389 (b) Obtain Department programmatic approval of a fish passage plan for multiple artificial  
390 obstructions of the same type. The Department may also grant programmatic approval to an  
391 agent for multiple owners or operators of artificial obstructions of the same type. Programmatic  
392 approvals are only valid so long as the owner or operator complies with the conditions of the  
393 programmatic approval. The Department shall only provide programmatic approval if:

394 (A) Fish passage structures placed subject to the programmatic approval meet and  
395 adhere to criteria determined by the Department;

396 (B) The owner, operator, or agent demonstrates, as determined by the Department, prior  
397 experience providing or approving acceptable fish passage structures;

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

401 (D) The owner or operator allows, or the agent requires owners or operators to allow, the  
402 Department to inspect fish passage structures subject to the programmatic approval at  
403 reasonable times; and

404 (E) The owner, operator, or agent agrees to expeditiously remedy all fish passage  
405 structures subject to the programmatic approval which the Department finds do not meet  
406 the applicable criteria or conditions of that programmatic approval.

407 (c) Pursuant to ORS 527.710(6), install and maintain road-stream crossing structures on non-  
408 federal forestlands in compliance with State Board of Forestry, through the Oregon Department of  
409 Forestry, rules and guidelines that the Department concurs meet the purposes of the  
410 Department's fish passage program; or

411 (d) Obtain an exemption from fish passage requirements for the artificial obstruction as provided  
412 in OAR 635-412-0025.

413 (4) Fish passage plans shall provide for and be implemented such that fish passage is installed at the  
414 artificial obstruction prior to completion of or by the end of the same in-water work period as the action  
415 which triggered fish passage requirements under subsection (2) of this rule unless:

416 (a) An owner or operator demonstrates to the Department an imminent or immediate threat to  
417 human safety exists which requires construction at a failed artificial obstruction prior to being able  
418 to complete the requirements of subsection (3), and the Department approves a fish passage  
419 plan in which the requirements of subsection (3) shall be met by the end of the next in-water work  
420 period or as soon as practicable as determined by the Department(providing passage at the time  
421 of construction is preferred);

422 (b) The Department or Commission finds additional time is necessary and appropriate given the  
423 size and scope of the project;

424 (c) Installation begins within the same in-water work period as the action that triggered fish  
425 passage and the Department finds that additional time to complete installation is necessary and  
426 appropriate given the size and scope of the project; or

427 (d) The Department finds that additional time is necessary and appropriate given the terms and  
428 conditions of a negotiated settlement for a federal proceeding or to ensure coordination with other  
429 federal requirements.

430 **Statutory/Other Authority:** ORS 496.138 & ORS 509.585  
431 **Statutes/Other Implemented:** ORS 496.012 & ORS 509.585  
432 **History:**  
433 [DFW 154-2022, amend filed 12/19/2022, effective 01/01/2023](#)  
434 DFW 2-2006, f. & cert. ef. 1-9-06  
435 DFW 23-2003, f. & cert. ef. 3-26-03

436 **635-412-0025**  
437 **Fish Passage Waivers and Exemptions**

438 (1) The Commission (or Department as applicable) may grant exemptions from fish passage  
439 requirements at an artificial obstruction if it is determined that:

440 (a) A lack of fish passage has been effectively mitigated;

441 (b) The owner or operator has received a legal waiver for the artificial obstruction from the  
442 Commission or the Department; or

443 (c) There is no appreciable benefit to providing fish passage.

444 (2) Waivers from fish passage requirements shall be granted for an artificial obstruction if the Commission  
445 (or Department, as applicable) determines that mitigation rather than fish passage proposed by the  
446 person owning or operating the artificial obstruction provides a net benefit to native migratory fish.

447 (3) Net benefit to native migratory fish is determined by comparing the benefit to native migratory fish that  
448 would occur if the artificial obstruction had fish passage to the benefit to native migratory fish that would  
449 occur as a direct result of the proposed mitigation actions. To qualify for a waiver of the requirement to  
450 install fish passage, proposed mitigation must result in a benefit to native migratory fish greater than the  
451 benefit to such species that would be provided by fish passage at the artificial obstruction. The net benefit  
452 determination shall be based upon conditions that exist at the time of comparison and should consider  
453 future conditions (e.g., climate change).

454 (4) Waivers shall be valid so long as the owner or operator continues to provide the agreed-upon  
455 mitigation until the next fish passage trigger at the artificial obstruction or until the Commission or  
456 Department determines that circumstances have changed such that the waiver requirements no longer  
457 apply, pursuant to ORS 509.585(9)(b).

458 (5) Exemptions granted under subsection (1)(c) of this rule shall be valid only so long as conditions that  
459 justified that exemption do not change, except if:

460 (a) That exemption has expired;

461 (b) A trigger occurs with respect to the artificial obstruction subject to that exemption; or

462 (c) The Commission or Department determines that exemption should not be renewed.

463 (6) At least once every seven years, the Department shall review, exemptions under subsection (1)(c) of  
464 this rule to determine whether such exemptions should be renewed. An exemption granted as a result of  
465 an action which triggered fish passage requirements under OAR 635-412-0020(2) tolls the trigger event

466 until the exemption is revoked. Prior to a seven-year review, exemptions under subsection (1)(c) of this  
467 rule may be reviewed by the Commission or Department.

468 (7) To obtain an exemption from fish passage requirements, an owner or operator of an artificial  
469 obstruction shall obtain from and submit to the Department an application for either a waiver under  
470 subsection (1)(a) or an exemption under section 1(c) of this rule.

471 (8) Based on application review, verification of the information in the application and of site-specific  
472 knowledge, Department staff shall provide a written benefit analysis of whether the proposal in the  
473 application meets the applicable requirements. If there is some level of passage at the artificial  
474 obstruction, but it does not meet the requirements of OAR 635-412-0035, the effective level of passage  
475 shall be factored into the Department's benefit analysis as a reduction in required mitigation measures.

476 (9) To receive a waiver, an owner or operator of an artificial obstruction shall enter an agreement with the  
477 Commission (or Department as applicable) that clearly describes timelines, duties, responsibilities, and  
478 options regarding the required mitigation. The agreement shall state that the mitigation shall be  
479 completed prior to completion of or by the end of the same in-water work period as the action which  
480 triggered fish passage requirements under OAR 635-412-0020, unless the Commission or Department  
481 finds that additional time is necessary and appropriate given the size and scope of the project; or to  
482 coordinate with requirements of federal proceedings.

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

486 (11) Once the application, Department's written benefit analysis, and a draft agreement are completed,  
487 the exemption determination shall be made by:

488 (a) The Department:

489 (A) If it determines that the total stream distance, including tributaries, affected by the  
490 artificial obstruction for which the exemption under section 1(a) and 1(b) is being sought  
491 is less than or equal to 1 mile of current native migratory fish distribution;

492 (B) For all exemptions proposed to have no appreciable benefit under section 1(c) of this  
493 rule; and

494 (C) For re-authorization of an existing hydroelectric project subject to ORS 543A.030 to  
495 543A.055 and not subject to federal hydroelectric relicensing; or

496 (b) The Commission:

497 (A) In all other instances; or

498 (B) If the Department refers a decision to the Commission.

499 (12) The decision to grant an exemption shall include the determination described in subsection (8) of this  
500 rule as well as approval of the agreement documenting applicable exemption conditions.

501 (13) The Department may amend or approve changes to the agreement if the changes do not affect the  
502 benefit analysis and after a public review and recommendation by the Fish Passage Task Force.

503 (14) In addition to the Fish Passage Task Force, the Department shall notify the public and provide an  
504 opportunity to review and comment on the owner or operator's request at least three weeks prior to an  
505 exemption determination.

506 (15) The Commission or Department, as applicable may provide further public comment prior to a  
507 decision on whether an exemption should be granted.

508 (16) The Department shall maintain a database of the locations of exempted artificial obstructions and  
509 mitigation.

510 **Statutory/Other Authority:** ORS 496.138 & ORS 509.585  
511 **Statutes/Other Implemented:** ORS 496.012 & ORS 509.585  
512 **History:**  
513 [DFW 154-2022, amend filed 12/19/2022, effective 01/01/2023](#)  
514 DFW 2-2006, f. & cert. ef. 1-9-06  
515 DFW 23-2003, f. & cert. ef. 3-26-03

516 **635-412-0030**  
517 **Fish Passage Protests**

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

520 (2) The owner or operator of the artificial obstruction who objects to a determination made by the  
521 Department under these rules may file a protest with the Commission. Protests must be submitted in  
522 writing within 30 days from the date the Department posts the determination on its website and must  
523 include the grounds for protesting that determination.

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

526 (4) If a protest is not filed within 30 days from the date the Department posts the determination from the  
527 Department, the Commission's or Department's determination becomes a final order.

528 **Statutory/Other Authority:** ORS 496.138 & ORS 509.585  
529 **Statutes/Other Implemented:** ORS 496.012 & ORS 509.585  
530 **History:**  
531 [DFW 154-2022, amend filed 12/19/2022, effective 01/01/2023](#)  
532 DFW 112-2004, f. & cert. ef. 11-17-04  
533 DFW 23-2003, f. & cert. ef. 3-26-03

534 **635-412-0035**  
535 **Fish Passage Criteria**

536 (1) General requirements for fish passage are:

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

539 (A) The native migratory fish that are currently or were historically present at the site that  
540 must be provided fish passage;

541 (B) The life history stages the required fish passage must accommodate; and

542 (C) The periods of the year and any conditions relevant to when fish passage shall be  
543 provided for such life history stages and native migratory fish.

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

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

551 (d) If the Department determines that the existing or historically present native migratory  
552 species or site-specific circumstances warrant an exception to any specific fish passage criterion  
553 then the Department may approve such an exception in writing as long as it finds that fish  
554 passage will likely still be provided at the artificial obstruction;

555 (e) All fish passage structures shall be designed considering their upstream and downstream  
556 connection and prevent undesirable impacts to fish passage, including but not limited to scour  
557 and headcuts;

558 (f) If federal approval of a fish passage plan is required, the Department shall take into account  
559 federal requirements during its review and determination;

560 (g) The Department may require monitoring and reporting to determine if a fish passage structure  
561 meets applicable criteria and is providing fish passage as intended and designed; and

562 (h) The owner or operator of an artificial obstruction shall maintain the fish passage structure in  
563 such repair and operation as to provide fish passage of native migratory fish at all times required  
564 by the Department.

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

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

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

571 (c) Fishway water velocities shall:

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

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

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

578 (d) At any point entering, within, or exiting the fishway where fish are required to jump to move  
579 upstream, the maximum difference between the upstream and downstream water surface  
580 elevations shall be 6 inches, except it shall be 12 inches if only adult salmon or steelhead require  
581 fish passage;

582 (e) In fishway locations through which fish must swim, water depths shall be a minimum of 6  
583 inches where only juveniles require passage and 12 inches where adults require passage,  
584 except:

585 (A) Baffled-chute fishways, including but not limited to Alaska steppasses and denils,  
586 shall have a minimum flow depth of 2 feet throughout the length of the fishway; and

587 (B) Water depths shall be a minimum of 2 feet within jump pools which shall be located  
588 downstream of any point entering, within, or exiting the fishway where fish are required to  
589 jump to move upstream.

590 (f) All fishway locations through which fish must swim shall be at least 12 inches wide, except  
591 vertical slot weir width may be 6 inches where the Department has determined the artificial  
592 obstruction is required to provide fish passage only for juvenile native migratory fish;

593 (g) Fishway pools shall:

594 (A) Be sized according to the applicable native migratory fish and life history stages and  
595 to avoid over-crowding;

596 (B) Have  $V \geq wQH/4$  at all flows within the design streamflow range, where:

597 (i) "V" is the water volume in cubic feet;

598 (ii) "w" is 62.4, the unit weight of water, in pounds per cubic foot;

599 (iii) "Q" is the fish ladder flow in cubic feet per second;

600 (iv) "H" is the energy head of pool-to-pool flow in feet; and

601 (v) 4 has a unit of foot-pounds per second per cubic foot.

602 (C) Where the fishway changes direction 90 degrees or more, have turning pools with a  
603 flowpath centerline double the length of non-turning pools; and

604 (D) Be placed at least every 25 feet of horizontal distance in baffled-chute fishways,  
605 including but not limited to Alaska steppasses and denils;

606 (h) The fishway exit should be located to minimize the risk of fish unintentionally falling  
607 downstream of the artificial obstruction, or into a water diversion;

608 (i) Fishway trash racks shall:

609 (A) Allow for easy maintenance and debris removal;

610 (B) Be maintained and cleaned as necessary to provide fish passage;

611 (C) Have a minimum clear space between vertical members of 10 inches, except at least  
612 4 inches shall be provided if only juveniles are present; and

613 (D) Have a minimum clear space between horizontal members of 24 inches;

614 (j) The fishway shall:

615 (A) Have water temperatures which are within 1 degree Fahrenheit of the water entering  
616 the fishway;

617 (B) Be designed to assure that fish do not leap out of the fishway;

618 (C) Have all surfaces, edges and fasteners which fish may contact ground smooth or  
619 chamfered;



- 620 (D) Not have protrusions that extend into the flow path of the fishway;
- 621 (E) Not expose fish to any moving parts;
- 622 (F) Be designed to avoid turbulence and hydraulic transition flow conditions as much as  
623 possible;
- 624 (G) Have as much ambient lighting as possible and avoid lighting transitions;
- 625 (H) Have fishway components which are not detailed in OAR 635-412-0035(2), including  
626 but not limited to auxiliary water systems, designed considering the most recent National  
627 Marine Fisheries Service or U.S. Fish and Wildlife Service fish passage criteria and  
628 guidelines;
- 629 (I) Meet the species-specific requirements in OAR 635-412-0035(7) if any of those native  
630 migratory fish require fish passage;
- 631 (k) Requirements for specific types of fishways include:
- 632 (A) Baffled-chute fishways, including but not limited to Alaska steeppasses and denils,  
633 shall not be used in areas where downstream passage will occur through the baffled-  
634 chute fishway; and
- 635 (B) All fishways of a specific type with accepted configurations shall comply with those  
636 configurations.
- 637 (l) Requirements for fishways which encompass the entire channel include:
- 638 (A) Roughened channels or nature-like fishway designs shall:
- 639 (i) Meet the requirements of OAR 635-412-0035(3)(a)(A) (ii), (iv), (v)(II through  
640 VII), or OAR 635-412-0035(3)(b);
- 641 (ii) Not have a slope that exceeds 6 percent, unless the average natural stream  
642 slope exceeds 6 percent; and
- 643 (iii) Contain partially buried over-sized boulder or boulder clusters to provide  
644 structural integrity and localized areas of lower water velocity.
- 645 (B) Stream channel-spanning weirs shall:
- 646 (i) Rise toward each bank from a low flow section centered along the thalweg of  
647 the channel;
- 648 (ii) Have a downstream jump pool with a minimum depth of 2 feet;
- 649 (iii) Have a maximum difference in elevation of 6 inches between the lowest point  
650 on the weir and the downstream pool's water surface control point;
- 651 (iv) Be sealed if fish passage during low flows is required;
- 652 (v) Be spaced at least 1.5 active channel widths apart if there are multiple weirs  
653 and recommend consideration of wider spacing when appropriate; and
- 654 (vi) Extend into the streambank a sufficient distance to protect against flanking;

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

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

662 (m) For downstream fish passage:

663 (A) Fish passage structures shall have an open water surface, except a submerged or  
664 enclosed conduit or orifice may be used if:

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

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

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

669 (iv) Water is not pumped;

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

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

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

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

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

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

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

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

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

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

689 (i) Are equal to or greater than the active channel width multiplied by 1.2 plus 2  
690 feet, as measured at sufficient locations outside the influence of any artificial or  
691 unique channel constrictions or tributaries both upstream and downstream of the  
692 site;

- 693 (ii) Are equal to the slope of, and at elevations continuous with, the surrounding  
694 long-channel streambed profile, unless the Department approves maintaining a  
695 pre-existing road-impounded wetland;
- 696 (iii) Have, for open-bottomed road-stream crossing structures, a minimum of 3  
697 feet vertical clearance from the active channel width elevation to the inside top of  
698 the structure;
- 699 (iv) Maintain average water depth and velocities that simulate those in the  
700 surrounding stream channel; and
- 701 (v) Are composed of material that:
- 702 (I) Assures the bed under or within the road-stream crossing structure is  
703 maintained through time;
- 704 (II) Is either natural (similar size and composition as the surrounding  
705 stream) or supplemented to address site-specific needs including, but  
706 not limited to, bed retention and hydraulic shadow;
- 707 (III) Contains partially-buried, over-sized rock;
- 708 (IV) Is mechanically placed during structure installation rather than  
709 allowed to naturally accumulate, unless the surrounding streambed is  
710 primarily bedrock;
- 711 (V) Excluding partially-buried over-sized rock, is, for closed-bottom road-  
712 stream crossing structures, at a minimum depth of 20 percent of the  
713 structure height;
- 714 (VI) Considers bed scour and stability of the bed material due to the  
715 confined flow through the crossing structure. Major structural  
716 components within the crossing should be designed for structural stability  
717 at the 100 year flood flow; and
- 718 (VII) Contains a low flow thalweg.
- 719 (B) Trash racks shall:
- 720 (i) Allow for easy maintenance and debris removal;
- 721 (ii) Be maintained, monitored, and cleaned as necessary to provide fish passage;
- 722 (iii) Not extend below the active channel width elevation;
- 723 (iv) Have a minimum of 10 inches clear spacing between vertical members; and
- 724 (v) Have a minimum clear space between horizontal members of 12 inches.
- 725 (C) Beaver exclusion culvert protection devices shall:
- 726 (i) Allow for easy maintenance and debris removal;
- 727 (ii) Be maintained, monitored, and cleaned as necessary to provide fish passage;

- 728 (iii) Have a minimum clear space between vertical and horizontal members of 6 inches  
729 when only resident trout, *Entosphenus* and *Lampetra* species (lamprey) species are  
730 present;
- 731 (iv) Be approved on a case by case basis in areas with salmon, steelhead, bull trout, or  
732 other large bodied species.
- 733 (D) Unvented and vented ford crossings shall meet the requirements of OAR 635-412-0035(2)  
734 and 635-412-0035(3)(b); and
- 735 (i) Be located outside of all known or suspected fish spawning areas such as pool tail-  
736 outs;
- 737 (ii) Be constructed perpendicular to the stream flow;
- 738 (iii) Minimize the width (perpendicular to streamflow);
- 739 (iv) Maintain similar water depths and flow velocities as surrounding stream during the  
740 design stream flows; and
- 741 (v) Have a low flow channel constructed within the crossing.
- 742 (E) Unvented ford crossings shall meet design criteria in OAR 635-412-0035(3)(a) and be  
743 constructed using materials approved by the Department that shall:
- 744 (i) Not be comprised of broken concrete, pavement or other debris;
- 745 (ii) Be comprised of clean washed gravel and rock;
- 746 (iii) Be countersunk and vertically align with the existing stream channel profile and  
747 gradient;
- 748 (iv) Be designed to allow natural bedload transportation;
- 749 (v) Be designed to withstand overtopping flood events;
- 750 (vi) Be used during periods of no or low stream flow; and
- 751 (vii) Be regularly inspected and maintained to provide fish passage.
- 752 (F) The Department may authorize construction of new fords in limited situations when it is the  
753 least impacting water crossing option. The following are examples of situations where the  
754 Department may authorize an unvented ford:
- 755 (i) The stream has extreme seasonal flow variations and low flows during anticipated ford  
756 use;
- 757 (ii) The channel has low bank height and low gradient approaches;
- 758 (iii) The stream has dynamic flood plains, such as alluvial fans; or
- 759 (iv) The stream is subject to mass wasting events, debris transport, or extreme peak  
760 flows.

761 (b) Alternative Option: the Department may approve road-stream crossing structures for which  
762 clear justification, based on fish performance, fish behavior data, and proposed post  
763 treatment hydraulic conditions (e.g., water depths, water velocities, and gate time open) is  
764 provided that demonstrates that the alternative design provides fish passage.

765 (4) Requirements for fish passage at artificial obstructions in estuaries, and above which a stream is  
766 present, are:

767 (a) Fish passage shall be provided at all current and historic channels;

768 (b) Fish passage structures shall meet the criteria of OAR 635-412-0035(2) or (3), except fish  
769 passage structures shall be sized according to the cumulative flows or active channel widths,  
770 respectively, of all streams entering the estuary above the artificial obstruction; and

771 (c) Tide gates and associated fish passage structures shall:

772 (A) Be a minimum of 4 feet wide unless the natural channel conditions are less than 4  
773 feet wide;

774 (B) Consist of an aluminum tide gate door or other equivalent light weight material;

775 (C) Be a side hinged door configuration;

776 (D) Meet the requirements of OAR 635-412-0035(2) or 635-412-0035(3)(b) within the  
777 design streamflow range and for an average of at least 51 percent of tidal cycles,  
778 excluding periods when the channel is not passable under natural conditions;

779 (i) Design streamflow range shall include tidal exchange, freshwater stream  
780 discharge and water storage volumes draining to the tide gate:

781 (ii) Design streamflow range should consider sub-surface flows if appropriate at  
782 the project location;

783 (E) Design invert elevation of tide gate and associated structure to be placed at 1 foot  
784 below Mean Lower Low Water elevation or as otherwise appropriate for the site to  
785 prevent perched low flow fish passage conditions and allow proper tide gate function;

786 (F) Consider the use of pet doors, mitigators, self-managed and self-regulating tide gate  
787 devices to maximize fish passage, time of tide gate door openness, water exchange, and  
788 tidal inundation if the tide gate is associated with high priority restoration habitat; and

789 (G) Submit a water management plan for projects implementing self-managed or self-  
790 regulating devices.

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

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

795 (a) Downstream Fish Passage shall be provided:

796 (A) After any inflow which contains native migratory fish;

797 (B) Until water has drained from the estuary, floodplain, or wetland, or through the period  
798 determined by the Department that shall be based on one, or more of, the following:

- 799 (i) A specific date;
- 800 (ii) Water temperature, as measured at a location or locations determined by the  
801 Department;
- 802 (iii) Ground surface elevation;
- 803 (iv) Water surface elevation; or
- 804 (v) Some other reasonable measure; and
- 805 (C) Egress delays may be approved by the Department based on expected inflow  
806 frequency and suitable habitat exists and as long as passage is provided by the time the  
807 conditions in OAR 635-412-0035(5)(a)(B) occur;
- 808 (D) A minimum egress flow of 0.25 cubic feet per second (cfs) at one point of egress shall  
809 be provided;
- 810 (E) Egress flow of 0.5 cfs per 10 surface acres, for at least the first 100 surface acres of  
811 impounded water, shall be provided;
- 812 (F) All plunging egress flows shall meet the requirements of OAR 635-412-0035(2)(I)(B);
- 813 (G) If egress flow is provided by a pump, it shall be appropriately screened;
- 814 (H) The water depth and width through or across the point of egress shall be at least 4  
815 inches;
- 816 (I) The ground surface above the artificial obstruction shall be sloped toward the point(s)  
817 of egress to eliminate isolated pools and topographic conditions that may entrain native  
818 migratory fish; and
- 819 (J) An uninterrupted, open connection with a minimum water depth of 4 inches shall be  
820 present from the point of egress to the downstream waters of this state, unless another  
821 connection is provided as per OAR 635-412-0035(2)(I)(A).
- 822 (b) Upstream Fish Passage shall be provided:
- 823 (A) If the Department determines there is current or historic native migratory fish  
824 spawning or rearing habitat within the estuary, floodplain, or wetland area impounded by  
825 the artificial obstruction; and
- 826 (B) During the period determined by the Department.
- 827 (6) Requirements for fish passage by trap collection and transport include:
- 828 (a) A permit issued by the Department is required to take fish when operating traps;
- 829 (b) Traps shall be constructed and operated to prevent physical or physiological injury to native  
830 migratory fish;
- 831 (c) Traps shall meet all requirements of OAR 635-412-0035(2)(g);

- 832 (d) Traps located within a fishway (i.e., "in-ladder" traps) shall not inhibit native migratory fish from  
833 entering the fishway or trap and shall be removed if the Department determines that fish are not  
834 entering the trap;
- 835 (e) Traps should be constructed and operated so native migratory fish proceed through traps with  
836 minimal delay and are removed from traps as frequently as necessary to avoid over-crowding;
- 837 (f) All native migratory fish, excluding those which have approved take authorization from the  
838 Department and that do not require fish passage as per OAR 635-412-0035(1)(a), shall be  
839 returned to the stream by one of the following methods:
- 840 (A) Movement from the trap to immediately-adjacent water which has fish passage; or
- 841 (B) Transport within a watered container, including but not limited to lifts, hoppers, locks,  
842 and trucks, from the trap to a location approved by the Department; and
- 843 (g) Traps shall be utilized where the feasibility of other fish passage structures or other site-  
844 specific considerations warrant use of trap collection and transport, or otherwise, the Department  
845 determines, using its professional judgment, trap collection and transport will result in an effective  
846 means of ensuring access to habitat above or below the artificial obstruction by native migratory  
847 species.
- 848 (7) Additional requirements for specific native migratory fish are:
- 849 (a) *Acipenser* species (sturgeon):
- 850 (A) The fish passage structure shall not require fish to jump when entering, within, or  
851 exiting the structure;
- 852 (B) The fish passage structure, including trash racks, shall be sized to accommodate the  
853 largest individual expected to require fish passage;
- 854 (C) Non-volitional transport within a watered container may only be allowed with  
855 Department approval; and
- 856 (D) Turning pools within the fish passage structure must be designed to allow for fish  
857 passage of a native migratory species at least 2 body lengths of the largest individual  
858 native migratory species currently or historically in the waters affected by the artificial  
859 obstruction.
- 860 (b) *Catostomus*, *Chasmistes*, and *Deltistes* species (suckers):
- 861 (A) The fish passage structure shall not require fish to jump when entering, within, or  
862 exiting the structure;
- 863 (B) Fishways shall:
- 864 (i) Have a maximum water velocity of 4 feet per second;
- 865 (ii) Have a minimum water depth of 12 inches;
- 866 (iii) Maximize downstream flow between pools to avoid back eddies;
- 867 (iv) Have curved walls within turning pools; and
- 868 (v) Have a slope less than 4 percent.

- 869 (c) *Entosphenus* and *Lampetra* species (lamprey):
- 870 (A) Fishways and associated structures (e.g., dams and spillways) shall have 4 to 6 inch  
871 smooth rounded radii edge surfaces (floors, aprons, walls, and weir crests) over  
872 which *Entosphenus* and *Lampetra* species may pass;
- 873 (B) Fishways shall not have water surface to water surface jumps or overhanging  
874 surfaces unless fishway surfaces have a 4 to 6 inch smooth rounded radii (floors, walls  
875 and weir crests) over which *Entosphenus* and *Lampetra* species may pass;
- 876 (C) Fishways shall, in locations with water velocities greater than 2 feet per second, have  
877 a passage route that:
- 878 (i) Has a smooth, continuous, impermeable, uninterrupted surface or a simulated  
879 streambed;
- 880 (ii) Has water velocities over the structure's surface less than 8 feet per second;  
881 and
- 882 (iii) Is wetted;
- 883 (D) Denil fishways shall not be used unless an alternative passage route is provided;
- 884 (E) Traps, picketed leads, picket weirs, auxiliary water supply grating or any other fishway  
885 grating shall have a spacing of less than 0.7 inches to preclude lamprey passage, or  
886 greater than 1.0 inch to allow lamprey to pass through;
- 887 (F) Fishway wall diffusers for auxiliary water supply shall be located at least 6 inches  
888 above finish floor of fishway pool;
- 889 (G) Auxiliary water floor diffusers shall be avoided if possible, but if necessary shall be  
890 located to provide at least 12 inches width of continuous smooth floor passage route  
891 along fishway floor;
- 892 (H) Fishway designs shall consider orifice flow if *Entosphenus* or *Lampetra* species are  
893 present.
- 894 (I) Orifices shall be positioned flush with the fishway floor and flush along one fishway  
895 wall; and
- 896 (J) Lamprey Passage Structures (Lamprey Ramps) shall be considered when retrofitting  
897 existing artificial obstructions to improve conditions for upstream migration  
898 of *Entosphenus* and *Lampetra* species.
- 899 (d) *Oncorhynchus* species (trout and salmon): fish passage structures for *Oncorhynchus*  
900 *kefa* (chum) shall not require fish to jump when entering, within, or exiting the structure.
- 901 (e) *Ptychocheilus* species (pikeminnow): fish passage structures shall meet the requirements of  
902 OAR 635-412-0035(7)(a).
- 903 (f) If more than one native migratory fish species requires passage at a site and the requirements  
904 for the different species are mutually exclusive, the Department shall determine the required  
905 passage criteria.
- 906 (8) Requirements for artificial obstruction removal are:



- 907 (a) Artificial obstruction removals shall follow the requirements of OAR 635-412-0035(10);
- 908 (b) If not completely removed, no parts of the remaining artificial obstruction shall:
- 909 (A) Constrict the stream channel; or
- 910 (B) Cause low flow depths less than the surrounding stream channel.
- 911 (c) After an artificial obstruction is removed the stream channel shall be restored; and
- 912 (d) The stream channel restoration shall address impacts to stream habitat caused by the artificial  
913 obstruction while in place and by its removal, including but not limited to upstream and  
914 downstream channel degradation, and provisions shall be made to address unexpected fish  
915 passage issues resulting from removal.
- 916 (9) Requirements for exclusion barriers are:
- 917 (a) When fish passage is not required or is provided by other means, exclusion barriers shall only  
918 be placed in the following situations:
- 919 (A) To guide fish to an approved fish passage structure or trap;
- 920 (B) To prevent fish from leaving waters of this state and entering human-made water  
921 supply conduits;
- 922 (C) To prevent fish from entering waters of this state associated with operations of  
923 another artificial obstruction that could lead to fish injury; or
- 924 (D) To achieve other fish management objectives approved in writing by the Department;  
925 and
- 926 (b) Exclusion barriers shall comply with National Marine Fisheries Service or U.S. Fish and  
927 Wildlife Service criteria.
- 928 (10) Requirements for fish passage during construction of fish passage structures and periods when  
929 temporary artificial obstructions are in place are:
- 930 (a) All fish passage structures shall be constructed and temporary artificial obstructions shall be in  
931 place only during the Department approved site-specific in-water work period;
- 932 (b) At times indicated by the Department as per OAR 635-412-0035(1)(a), downstream fish  
933 passage shall be provided and:
- 934 (A) The outfall of a stream flow bypass system shall be placed to provide safe reentry of  
935 fish into the stream channel; and
- 936 (B) If downstream fish passage during construction is not required and stream flow is  
937 pumped around the site, the site shall meet Department screening or bypass  
938 requirements.
- 939 (c) At times indicated by the Department as per OAR 635-412-0035(1)(a), upstream fish passage  
940 shall be provided and shall be based on the wetted-width or flows of the stream during the period  
941 of construction or temporary obstruction;
- 942 (d) In-stream construction sites shall be isolated from stream flow and fish;

- 943 (e) Prior to in-stream construction activities, all fish shall be safely collected, removed from the  
944 construction site or de-watered reach, and placed in the flowing stream outside of the areas of  
945 project impacts by an authorized person with an ODFW Fish Rescue Salvage  
946 Authorization issued by and following the guidance of the Department; and
- 947 (f) After construction, the construction site shall be re-watered slowly and in a controlled manner  
948 to prevent loss of downstream surface water as the construction site's streambed absorbs water.
- 949 (11) Requirements for experimental fish passage structures are:
- 950 (a) Experimental fish passage structures shall only be allowed in waters of this state after:
- 951 (A) Laboratory testing with native migratory fish or similar species indicates that the  
952 structure provides fish passage;
- 953 (B) Field testing with a prototype structure, at a location where existing fish passage will  
954 not be compromised and where fish passage does not need to be addressed under OAR  
955 635-412-0020(2) and (3), indicates that the structure will provide fish passage; and
- 956 (C) In addition to information needed to evaluate the structure's design for the specific  
957 location, the following are submitted to and approved by the Department:
- 958 (i) A written summary of the laboratory and field testing and how the results  
959 indicate that fish passage shall be provided;
- 960 (ii) A monitoring and reporting plan to determine if the installed experimental fish  
961 passage structure meets applicable design objectives and is providing fish  
962 passage; and
- 963 (iii) A modification plan for the experimental fish passage structure if monitoring  
964 indicates that fish passage is not being provided, including standard thresholds  
965 that once met will require owner or operator to initiate these modifications.
- 966 (b) If at any time an experimental fish passage structure is deemed by the Department in writing  
967 to not provide fish passage, the owner or operator, in consultation with the Department, shall  
968 make such modifications to the structure or operation as are necessary to provide fish passage,  
969 and, after a reasonable period, if modifications are deemed by the Department in writing to not  
970 provide fish passage, a fish passage structure that meets the standard criteria of OAR 635-412-  
971 0035 shall be installed as soon as practicable but no later than the end of the next complete in-  
972 water work period after notification by the Department, unless the Department determines  
973 additional time is necessary;
- 974 (c) The owner or operator of an experimental fish passage structure shall allow the Department to  
975 inspect experimental fish passage structures at reasonable times;
- 976 (d) Five years after the experimental fish passage structure is installed and fish are present to  
977 attempt passage a final monitoring report shall be submitted to the Department and the  
978 Department shall determine if the experimental fish passage structure provides fish passage; and
- 979 (e) The Department may consider a fish passage structure to no longer constitute an  
980 experimental fish passage structure after the Department finds three such structures of the same  
981 design concept placed in waters of this state effectively provide fish passage.

982 **Statutory/Other Authority:** ORS 496.138 & ORS 509.585  
983 **Statutes/Other Implemented:** ORS 496.012 & ORS 509.585  
984 **History:**

985 DFW 154-2022, amend filed 12/19/2022, effective 01/01/2023  
986 DFW 2-2006, f. & cert. ef. 1-9-06

987

988 **635-412-0040**  
989 **Mitigation Criteria**

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

992 (2) Mitigation options include:

993 (a) Providing fish passage at another pre-existing artificial obstruction which is not required to  
994 address fish passage under OAR 635-412-0015 or 635-412-0020;

995 (b) Restoration or enhancement of native migratory fish habitat;

996 (c) Implementing measures that directly increase naturally-produced native migratory fish  
997 populations, especially sensitive or state or federally listed species through implementation of fish  
998 management measures; and

999 (d) Implementation of other actions specifically approved by the Commission or Department.

1000 (3) Mitigation shall not include any activity that is a requirement or condition of any other agreement, law,  
1001 permit, or authorization except if it is also for fish passage mitigation of the same action at the artificial  
1002 obstruction for a different level of government.

1003 (4) Unless a fish passage waiver for a site has already been obtained and mitigation has been provided,  
1004 mitigation activities shall not be completed prior to a decision regarding a fish passage waiver.

1005 (5) The Department shall approve final mitigation plans, including designs as applicable, in writing prior to  
1006 implementation.

1007 **NOTE:** Mitigation actions/measures/activities or concepts, absent specific designs, can be approved at  
1008 the time a waiver decision is made.

1009 (6) Mitigation actions that provide fish passage shall meet the fish passage criteria contained in OAR 635-  
1010 412-0035.

1011 (7) The Commission or Department may require the posting of a bond or other financial instrument to  
1012 cover the cost of mitigation actions or providing fish passage at the artificial obstruction if implementation  
1013 of the mitigation action or providing fish passage does not achieve its goals.

1014 (8) An owner or operator of an artificial obstruction is responsible for maintaining, monitoring, evaluating  
1015 the effectiveness of, and reporting on mitigation.

1016 (9) Mitigation:

1017 (a) Shall be conducted in-proximity to the artificial obstruction, with respect to geographic scope;

1018 (b) Shall have habitat type and quality which is more beneficial than that affected by the artificial  
1019 obstruction, if mitigation is passage into, restoration of, or enhancement of habitat;

1020 (c) Shall at least benefit the same native migratory fish species affected at the artificial  
1021 obstruction;

- 1022 (d) Shall have a clear benefit for those native migratory fish species affected at the artificial  
1023 obstruction if their status is listed as "threatened" or "endangered" under the state or federal  
1024 Endangered Species Act;
- 1025 (e) Shall have standards for monitoring and evaluating, and include adaptive management  
1026 approved by the Department, that assure that the goal of the mitigation is achieved and  
1027 maintained, and which are detailed in the agreement required in OAR 635-412-0025(9);
- 1028 (f) Shall be considered if the owner or operator of the artificial obstruction believes the feasibility  
1029 of fish passage at the artificial obstruction is less than that for mitigation;
- 1030 (g) Shall attempt to restore or enhance historic conditions;
- 1031 (h) To the extent possible, shall be consistent with existing native migratory fish or watershed  
1032 management plans;
- 1033 (i) May qualify for financial incentives or grants issued by the Department. The Department will  
1034 not factor into its written benefit analysis the owner's or operator's cost for mitigation or fish  
1035 passage at an artificial obstruction, nor any financial incentives or grants issued by the  
1036 Department;
- 1037 (j) Shall be consistent with the purpose and goals of the Oregon Plan.
- 1038 (10) The Department or Commission, as applicable, in determining the sufficiency of proposed mitigation:
- 1039 (a) May require quantification of baseline conditions before a decision regarding a fish passage  
1040 waiver is made in situations with no existing information, which require recent of updated  
1041 information, or situations which have no clear benefit to native migratory fish species;
- 1042 (b) May require data collection and evaluation as directed by the Department, by the owner or  
1043 operator before a decision regarding a fish passage waiver is made in situations with no existing  
1044 information, which require recent information, or which have no clear benefit;
- 1045 (c) Shall consider the extent to which the proposed mitigation is likely to occur independent of a  
1046 fish passage waiver; and
- 1047 (d) Shall consider actions that anticipate the expected effects of climate change, which may  
1048 include but is not limited to effects to streamflows, water temperatures, sediment transport, fish  
1049 passage facility performance, biological responses, risk and uncertainty, and the importance of  
1050 protecting and restoring habitat for native migratory fish.
- 1051 **Statutory/Other Authority:** ORS 496.138 & ORS 509.585  
1052 **Statutes/Other Implemented:** ORS 496.012 & ORS 509.585  
1053 **History:**  
1054 [DFW 154-2022, amend filed 12/19/2022, effective 01/01/2023](#)  
1055 DFW 2-2006, f. & cert. ef. 1-9-06
- 1056 **635-412-0045**  
1057 **Environmental Restoration Weirs**
- 1058 Definitions; In addition to the definitions in OAR 635-412-0005, for the purpose environmental restoration  
1059 weirs the following definitions shall apply:
- 1060 (1) "Ancient floodplain" means channel adjacent areas and surfaces constructed by fluvial processes that  
1061 functioned as floodplains or areas for overbank deposition prior to channel incision.

- 1062 (2) "Applicant" means a person applying for the Department's approval of the construction of an  
1063 environmental restoration weir as defined in this section.
- 1064 (3) "Environmental restoration weir" means one or more structures that are constructed:
- 1065 (a) For the purpose of delaying or slowing, but not preventing, streamflow to promote restoration  
1066 of stream and habitat conditions;
- 1067 (b) Such that the structures do not store or appropriate water in a manner that would require a  
1068 permit from the Oregon Water Resources Department;
- 1069 (c) To be no larger than necessary to cause overbank flooding onto the lands constituting the  
1070 ancient floodplain during ordinary periods of high streamflow. Ordinary periods of high streamflow  
1071 are times when the water elevations would reach the ordinary high water line in an unaltered  
1072 stream condition; and
- 1073 (d) From wood (including untreated fence posts), earth, dirt, rock or other natural materials.  
1074 Treated wood, metal, concrete, gabions or other engineered material do not qualify as natural  
1075 materials.
- 1076 (4) "Healthy native migratory fish population" means a population of native migratory fish that, as  
1077 determined by the Oregon Department of Fish and Wildlife:
- 1078 (a) Demonstrates appropriate life stages throughout the year; and
- 1079 (b) Reproduces at sufficient levels to be a self-sustaining population into the foreseeable future.
- 1080 (5) "Incised or eroded stream" means a stream that has been scoured by erosion to the extent that the  
1081 channel bed elevation has lowered relative to its ancient floodplain and the stream has lost connectivity  
1082 with the ancient floodplain, as characterized by:
- 1083 (a) The loss of natural wetland, riparian or meadow conditions in the adjacent surfaces;
- 1084 (b) The absence of overbank flooding or deposition during ordinary periods of high streamflow;
- 1085 (c) The loss of historic diversity of native fish or other species; or
- 1086 (d) The presence of dry land species that have encroached from adjacent uplands, including but  
1087 not limited to sagebrush, bunch grass, juniper and pine.
- 1088 (6) "Qualifying stream" means an incised or eroded stream, a designated reach of an incised or eroded  
1089 stream or a designated set of adjacent reaches of an incised or eroded stream that, prior to  
1090 commencement of a project approved by the Department:
- 1091 (a) Has an estimated median monthly natural streamflow of less than one cubic foot per second  
1092 during at least two months of the year;
- 1093 (b) Has not had a healthy native migratory fish population for at least three years prior to the time  
1094 of Department approval; and
- 1095 (c) Is incised or eroded to the extent that the channel bed elevation has lowered by two feet or  
1096 more relative to the elevation of the ancient floodplain.
- 1097 (7) "Reach" means a section of a stream that is similar in flow topography and habitat characteristics and  
1098 is between 50 and 500 feet in length.

1099 (8) "Summit of the Cascade Mountains" means a line beginning at the intersection of the northern  
1100 boundary of the State of Oregon and the western boundary of Wasco County, thence southerly along the  
1101 western boundaries of the counties of Wasco, Jefferson, Deschutes and Klamath to the southern  
1102 boundary of the State of Oregon.

1103 **Statutory/Other Authority:** ORS 509.580, ORS 509.585 & HB2298 (2021)

1104 **Statutes/Other Implemented:** HB2298 (2021)

1105 **History:**

1106 [DFW 31-2022, adopt filed 03/23/2022, effective 03/23/2022](#)

1107 **635-412-0050**

1108 **Eligibility Criteria**

1109 (1) If the Department determines, or the applicant assumes, that native migratory fish are present in a  
1110 qualifying stream, prior to construction of the environmental restoration weir the applicant shall obtain  
1111 Department approval of a fish passage plan that is consistent with criteria set forth in OAR 635-412-0035.

1112 (2) If the Department determines that native migratory fish are not present in a qualifying stream prior to  
1113 the date of construction of environmental restoration weirs, the applicant is exempt from the requirements  
1114 of ORS 509.585 and applicable provisions of OAR 635, Division 412, unless and until the Department  
1115 determines that native migratory fish have returned to the qualifying stream.

1116 (3) If, after construction of an environmental restoration weir, the Department determines that native  
1117 migratory fish have returned to the qualifying stream, the Department may require the owner of that  
1118 environmental restoration weir to either:

1119 (a) Obtain Department approval of a fish passage plan that:

1120 (A) Can be constructed from locally available natural materials; and

1121 (B) Includes modifications recommended by the Department unless the owner of the  
1122 environmental restoration weir demonstrates to the Department that the proposed  
1123 modifications will not be economically practicable. To determine if the modifications are  
1124 economically practicable, the Department may evaluate information including but not  
1125 limited to:

1126 (i) the cost of the original project;

1127 (ii) the cost of the recommended modifications; and

1128 (iii) the habitat value of the restoration project; or

1129 (b) Obtain Department approval of mitigation that provides a net benefit  
1130 to native migratory fish consistent with ORS 509.585 and criteria set forth  
1131 in OAR 635-412-0040.

1132 (c) If the Department requires the owner of an environmental restoration  
1133 weir to obtain Department approval of a fish passage plan or mitigation  
1134 proposal pursuant to this subsection (3), the owner of the environmental  
1135 restoration weir must submit a sufficient plan or proposal, as applicable,  
1136 within 60 days unless the Department determines an extension is  
1137 warranted.

1138 (4) The Department may authorize a project for stream restoration and habitat improvement through the  
1139 construction of environmental restoration weirs only if:

- 1140 (a) The project involves construction of environmental restoration weirs on one or more qualifying  
1141 streams located in any historically closed basin:
- 1142 (A) From which water does not flow to the Pacific Ocean; and
- 1143 (B) That is located east of the summit of the Cascade Mountains;
- 1144 (b) Construction of the environmental restoration weirs will be completed no later than July 1,  
1145 2031;
- 1146 (c) The project complies with local floodplain regulations if the project is located within an area  
1147 subject to floodplain management;
- 1148 (d) Construction of environmental restoration weirs has not begun prior to the date of the  
1149 Department's approval;
- 1150 (e) The project is unlikely to adversely impact transportation infrastructure or planned  
1151 transportation infrastructure as determined by the Oregon Department of Transportation;
- 1152 (f) The project will not store or appropriate water in a manner that would require a permit from the  
1153 Oregon Water Resources Department;
- 1154 (g) The Department has approved a fish passage plan for the project if such approval is required  
1155 by section (1) of this rule;
- 1156 (h) The planned project, including but not limited to timing of construction, material, size, location,  
1157 and other information contained in the application regarding historic features on landscape and  
1158 rationale for the project, demonstrate, as determined by the Department, that the project is likely  
1159 to produce the intended ecological benefits of stream restoration and habitat improvement; and
- 1160 (i) The Department determines that the environmental restoration weir is no larger than necessary  
1161 to cause overbank flooding during ordinary periods of high streamflow.

1162 **Statutory/Other Authority:** ORS 509.580, ORS 509.585 & HB 2298 (2021)

1163 **Statutes/Other Implemented:** HB 2298 (2021)

1164 **History:**

1165 [DFW 31-2022, adopt filed 03/23/2022, effective 03/23/2022](#)

1166 **635-412-0055**

1167 **Application Material**

1168 Any application for projects involving construction of environmental restoration weirs must utilize the  
1169 Department's application form and specifically describe how the project will meet all the eligibility criteria  
1170 set forth in OAR 635-412-0050 and facilitate stream restoration and habitat improvement. The  
1171 Department may require the application to include:

1172 (1) A description of the current habitat conditions, rationale for the project, and intended impact of the  
1173 environmental restoration weirs, including whether beaver restoration is an intended outcome;

1174 (2) Information on the planned construction timing, location, and number of environmental restoration  
1175 weirs in the qualifying stream;

1176 (3) Photographs of all the proposed environmental restoration weir construction sites sufficient to meet  
1177 pre-project monitoring requirements;

1178 (4) A description of stream management and adjacent land use plans, descriptions of any efforts already  
1179 undertaken to address historic factors contributing to habitat degradation and future efforts that will be  
1180 implemented to protect habitat restoration;

1181 (5) Plans, drawings, or pictures documenting stream measurements including active channel width,  
1182 height of ordinary high water line, height of ancient floodplain above stream bottom, and the size and  
1183 material source and composition of the environmental restoration weirs;

1184 (6) Written documentation from the Oregon Water Resources Department (OWRD) stating:

1185 (a) Whether injury to other water rights is likely to occur if the proposal is implemented as  
1186 described in the application;

1187 (b) Whether any manipulation of water during any phase of construction is likely to cause injury to  
1188 any existing water right; and

1189 (c) Whether the project will require a permit from the OWRD;

1190 (7) Information on location and type of nearest downstream road crossing; and

1191 (8) Plans demonstrating fish passage meets the criteria set forth in OAR 635-412-0035, if the project is in  
1192 a qualifying stream reach where native migratory fish are present.

1193 **Statutory/Other Authority:** ORS 509.580, ORS 509.585 & HB 2298 (2021)

1194 **Statutes/Other Implemented:** HB 2298 (2021)

1195 **History:**

1196 [DFW 31-2022, adopt filed 03/23/2022, effective 03/23/2022](#)

1197 **635-412-0060**

1198 **Conditions of Approval**

1199 (1) The Department may require third-party monitoring as a condition of approval.

1200 (2) Brush and trees removed in association with construction of an environmental restoration weir must  
1201 be replanted with native riparian vegetation. Removal of vegetation shall not be more than required to  
1202 access the project site.

1203 (3) Planting or removal of brush and trees from stream banks and riparian areas as part of an authorized  
1204 project are not subject to riparian management requirements established under the Oregon Forest  
1205 Practices Act. The State Forester must be notified if there is any sale, barter, or trade of timber material  
1206 resulting from the removal of trees associated with the project.

1207 (4) Construction of environmental restoration weirs must be done either when the stream is dry, during  
1208 the appropriate Department in-water work window, or by arrangement with the Department.

1209 (5) For streams with flowing water at the time of construction, best efforts shall be used to prevent erosion  
1210 and minimize soil movement and turbidity including:

1211 (a) Stabilizing exposed soils during and after construction to prevent erosion and turbidity. To  
1212 prevent erosion the Department recommends protecting soil stockpiled during rain events or  
1213 when the stockpile site is not moved or reshaped for more than 48 hours by use of:

1214 (A) Compost berms;

1215 (B) Impervious materials; or



- 1216 (C) Other equally effective methods.
- 1217 (b) Unless areas are frozen solid or under dry summer conditions, all construction access points  
1218 through, and staging areas in, riparian and wetland areas must use methods to prevent soil  
1219 compaction, excluding the soil or materials used in the environmental restoration weir;
- 1220 (c) At project completion, disturbed areas with soil exposed by construction activities must be  
1221 stabilized by mulching and native vegetative plantings/seeding;
- 1222 (d) Unless incorporated in the environmental restoration weir, dredged or other excavated  
1223 material must be placed on upland areas having stable slopes and must be prevented from  
1224 eroding back into waterways and wetlands;
- 1225 (e) The owner of the environmental restoration weir should inspect and maintain erosion control  
1226 measures as necessary to ensure their continued effectiveness until soils become stabilized;
- 1227 (f) All erosion control structures must be removed when the project is complete, and soils are  
1228 stabilized and vegetated; and
- 1229 (g) Unless otherwise approved by the Department based on site-specific conditions, the work  
1230 area must be isolated from flowing water during construction or other methods must be in place to  
1231 prevent downstream turbidity. All structures and materials used to isolate the work area must be  
1232 removed immediately following construction and water flow returned to pre-construction  
1233 conditions.
- 1234 (6) Petroleum products, chemicals, wood treated with leachable preservatives or other deleterious waste  
1235 materials must not enter the qualifying stream. Machinery and equipment staging, cleaning, maintenance,  
1236 refueling, parking, and fuel storage must be at least 150 feet from the stream channel to prevent  
1237 contaminants from entering waters of this state. Refueling is to be confined to a designated area to  
1238 prevent spillage into waters of this state.
- 1239 (7) Operating machinery within the stream channel should be minimized as much as possible. All  
1240 machinery operated within the stream channel must be in good working order, inspected for leaks prior to  
1241 each use, and maintained to prevent leakage of fuels, oils, or other fluids.
- 1242 (a) An appropriately sized spill kit must be on-site when operating in the stream channel, leaked  
1243 fluids must be cleaned promptly, and any contaminated soils removed from the area and properly  
1244 disposed of; and
- 1245 (b) Any equipment found to be leaking fluids must be immediately removed from and kept out of  
1246 the stream channel until repaired.
- 1247 (8) The project must not redirect the stream channel or cause damage to property or structures adjacent,  
1248 nearby, upstream, downstream, or within the project site.
- 1249 (9) It is the responsibility of the applicant or owner of an environmental restoration weir to comply with all  
1250 necessary and required local, county, state, and federal approvals and permits.
- 1251 (10) Applicant or owner of the environmental restoration weir shall at all times observe and comply with all  
1252 federal and state laws, including without limitation the Endangered Species Act of 1973, as amended (16  
1253 U.S.C. 1531-1536, 1538-1540), ORS 496.172 to 496.192 (Threatened and Endangered Wildlife Species),  
1254 and ORS 564.100 to 564.135 (Threatened and Endangered Plants), and lawful regulations issued  
1255 thereunder, and local bylaws, ordinances, and regulations, which relate to Threatened and Endangered  
1256 plant or animal species while constructing and maintaining environmental restoration weirs approved by  
1257 the Department.

1258 **Statutory/Other Authority:** ORS 509.580, ORS 509.585 & HB 2298 (2021)

1259 **Statutes/Other Implemented:** HB 2298 (2021)

1260 **History:**

1261 [DFW 31-2022, adopt filed 03/23/2022, effective 03/23/2022](#)

1262 **635-412-0065**

1263 **Monitoring and Reporting**

1264 (1) The owner of an environmental restoration weir is responsible for maintaining the structure as  
1265 approved, and monitoring and reporting on the habitat conditions as specifically required by this rule.

1266 (2) Monitoring and reporting shall consist of fixed photo-point monitoring of each environmental  
1267 restoration weir, or if approved by the Department, high resolution video footage of each environmental  
1268 restoration weir as a substitute for such fixed-point monitoring. Photo monitoring shall:

1269 (a) Be established prior to construction of the environmental restoration weir;

1270 (b) Be taken from established and consistent sites before construction and after construction  
1271 during high and low water periods each year for 10 years;

1272 (c) Show the environmental restoration weir from both sides of the qualifying stream;

1273 (d) Show upstream, downstream stream, and riparian habitat conditions; and

1274 (e) Be submitted to the Department annually for 10 years post construction.

1275 (3) If the Department requires third-party monitoring as a condition of approval.

1276 (a) Monitoring will only be conducted if:

1277 (A) The third party is chosen through mutual agreement between the owner of the  
1278 environmental restoration weir and the Department;

1279 (B) The owner of the environmental restoration weir may not unreasonably withhold  
1280 consent for the third party to engage in monitoring;

1281 (C) The third-party monitoring may not result in a financial cost to the owner of the  
1282 environmental restoration weir; and

1283 (D) The third party engaging in the monitoring must be covered by sufficient liability and  
1284 casualty insurance.

1285 (b) Monitoring may include gathering information on applicable habitat and stream metrics  
1286 including temperature data, water quality, stream discharge measurements, habitat survey data,  
1287 invertebrate sampling, riparian vegetation surveys, pool area measurements, floodplain area  
1288 engagement, fish sampling, dissolved oxygen, wildlife responses, or other land responses  
1289 associated with the environmental restoration weirs.

1290 (4) The Department shall require the owner of the environmental restoration weir to modify or remove the  
1291 environmental restoration weir if it is found:

1292 (a) By the Oregon Water Resources Department to result in injury to an existing water right;

1293 (b) By the Department to have a significant detrimental impact on native migratory fish; or

1294 (c) To have been modified beyond the original authorized design specification to the point where  
1295 the project no longer meets the criteria set forth in OAR 635-412-0050(4).

1296 (5) The Department, in coordination with the Oregon Department of Transportation, may at any time  
1297 require the owner to modify environmental restoration weirs if the environmental restoration weirs are  
1298 found to adversely impact transportation infrastructure or planned transportation infrastructure.

1299 (6) The Department shall maintain a database of projects that apply for approval under this program.

1300 (a) No later than December 31, 2027, the Department shall submit a publicly available report, in  
1301 the manner provided by ORS 192.245, to the interim committees of the Legislative Assembly  
1302 related to environment and natural resources that provides information summarizing the extent to  
1303 which projects have been commenced and completed under OAR 635-412-0045 through 635-  
1304 412-0065.

1305 (b) No later than September 15, 2032, the Department shall submit a publicly available report, in  
1306 the manner provided by ORS 192.245, to the interim committees of the Legislative Assembly  
1307 related to environment and natural resources on projects authorized under OAR 635-412-0045  
1308 through 635-412-0065. The report shall include:

1309 (A) Assessments of the conditions of qualifying streams affected by authorized projects,  
1310 which assess stream conditions prior to construction of environmental restoration weirs  
1311 as well as after construction of environmental restoration weirs; projects will be evaluated  
1312 on factors including:

1313 (i) Number and location of environmental restoration weirs;

1314 (ii) Photo monitoring of habitat conditions before and after the construction of the  
1315 environmental restoration weir;

1316 (iii) Professional opinion of change in habitat quality, water quantity and quality,  
1317 fish distribution, health of native migratory fish populations; and

1318 (iv) Any habitat data provided by the owner of the environmental restoration weir  
1319 including temperature monitoring, stream characteristics, flow measurements,  
1320 fish surveys, riparian vegetation, floodplain connectivity or other observations  
1321 made in association with the construction of restoration weirs.

1322 (B) Recommendations, which may include recommendations for legislation, to allow the  
1323 Department to authorize projects in which construction of environmental restoration weirs  
1324 will commence on or after January 2, 2036.

1325 (c) The Department will provide the Fish Passage Task Force with draft reports for review prior to  
1326 reporting to the Legislature.

1327 **Statutory/Other Authority:** ORS 509.580, ORS 509.585 & HB 2298 (2021)

1328 **Statutes/Other Implemented:** HB 2298 (2021)

1329 **History:**

1330 [DFW 31-2022, adopt filed 03/23/2022, effective 03/23/2022](#)

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