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ODOT CULVERT REPAIR FISH PASSAGE PILOT PROGRAMMATIC AGREEMENT

The parties to this Programmatic Agreement, (hereafter "Agreement") are the Oregon Department of Fish and Wildlife (ODFW), and the Oregon Department of Transportation (ODOT), both agencies of the State of Oregon.

I. PURPOSE

1. It is the policy of the State of Oregon to provide for upstream and downstream passage for native migratory fish in all waters of this state in which they are currently or have historically been present, as described in Oregon Revised Statute (ORS) 509.585, Oregon Administrative Rule (OAR) 635-412-0020, and envisioned by the Oregon Plan for Salmon and Watersheds (Executive Order 99-01).
2. It is the Mission of ODOT to provide a safe, efficient transportation system that supports economic opportunity and livable communities for Oregonians.
3. Pursuant to ORS 509.585 and OAR 635-412-0020, certain actions, or "trigger events,"¹ at "artificial obstructions"² where native migratory fish (as defined in OAR 635-412-0005(32)) are currently or were historically present require the review and approval of fish passage by ODFW or the Oregon Fish and Wildlife Commission (OFWC) prior to those trigger events occurring. OAR 635-412-0020(3)(b) allows ODFW to grant "programmatic approval" of a fish passage plan for multiple artificial obstructions of the same type.
4. ODOT owns and operates a number of culverts as part of its transportation system. ODOT desires the opportunity to conduct repair activities on their culverts to meet the original life expectancy of the culvert structure. These activities (Appendix A) may constitute a fish passage trigger event as defined by OAR 635-412-0005(9).
5. This Agreement is intended to serve as the ODFW fish passage approval for the short-term repairs of ODOT culverts associated with this pilot project that meet the requirements and conditions of this Agreement (including Appendix A).
6. The goals of this Agreement include:
 - a) Provide improved fish passage conditions at each culvert repair site
 - b) Address statewide fish passage priority barriers using the fish passage fund (defined in Section III(3) of this agreement) in the most expeditious and efficient way practical
 - c) Improve State highway infrastructure conditions at each culvert repair site to address public safety
 - d) Generate information on the costs, impacts, efficiency, and effectiveness of the culvert repair pilot project approach
 - e) ODOT and ODFW will develop a work plan and identify resources to develop information on fish presence and barrier status on the State highway system and include this information in the ODOT State Highway Drainage Facility Management System (DFMS)

¹ "Trigger events" for the purposes of this Agreement shall mean, with respect to an "artificial obstruction" (defined in OAR 635-412-0005(3)) located where native migratory fish are currently or were historically present: "construction" activities (defined in OAR 635-412-0005(9)), "fundamental changes in permit status" (defined in OAR 635-412-0005(25)), or "abandonment".

² "Artificial obstruction" means any dam, diversion, dike, berm, levee, tide or flood gate, road, culvert or other human-made device placed in the waters of this state that precludes or prevents the migration of native migratory fish.

II. APPLICABILITY

1. This Agreement applies to ODOT, including its independent contractors, when repairing ODOT owned culverts. It does not apply to other State or local agencies, or private persons.
2. This Agreement applies when ODOT culvert repair actions covered by this pilot project constitute a “trigger event” to Oregon’s Fish Passage Policy. The Agreement identifies and determines how ODOT shall proceed as per the terms of this Agreement. ODOT remains responsible to address and comply with fish passage laws for activities and situations not covered by this Agreement.
3. Under this Agreement only ODFW may determine that native migratory fish are not currently and were not historically present at a site; however ODOT may assume presence of native migratory fish.
4. This Agreement applies to culverts that meet all of the following criteria:
 - a) Culverts located within the State of Oregon;
 - b) Culverts not identified on the ODOT ten year passage implementation plan.³
 - c) Culverts located in or which would prevent access to Habitat Category 1⁴ habitat are excluded.
 - d) Culverts with tide gates are excluded.
 - e) Full traditional culvert slip-line repair treatments are excluded.

III. PROVISIONS OF THE AGREEMENT

1. ODOT will be permitted to conduct the culvert repair activities described in appendix A through the 5-year term of this Agreement. Culvert replacements are not authorized by this Agreement.
2. ODOT will ensure that fish passage improvements⁵ occur at each culvert repaired under this Agreement, with the goal of maximizing native migratory fish passage to the extent feasible at each site. Culverts identified as a high fish passage priority on the current ODFW-ODOT Culvert Fish Passage Priority list are eligible for repair under this programmatic provided that fish passage is significantly⁶ improved as part of the repair project.

³ ODFW and ODOT will jointly develop a 10 year passage implementation plan for ODOT to address fish passage at High Priority sites utilizing the ODOT Fish Passage Program funds. Projects not identified on this implementation plan are eligible for the Culvert Repair Programmatic Agreement.

⁴ Habitat Category I is defined in OAR 635-415-0025(1) and include habitats that are irreplaceable, essential habitat for a fish or wildlife species, population, or a unique assemblage of species and is limited on either a physiographic province or site specific basis, depending on the individual species, population or unique assemblage.

⁵ Fish passage improvements may include but are not limited to the following treatments: weirs, baffles, fish rocks, roughened channels, rock weirs, or other treatments within or outside the culvert that decrease water velocities, increase water depths, or reduce jump heights. ODFW-ODOT Liaison will work with ODOT to ensure site specific fish passage improvements are appropriate for the fish species and site conditions. If fish passage exists and cannot be further improved at ODOT’s culvert repair site, fish passage improvements may occur at the next passage barrier up or downstream of ODOT’s culvert as negotiated on a case by case basis. The goal of addressing passage up or down stream of ODOT’s culvert is to ensure that a cumulative net benefit is realized by the fish population at the trigger site.

⁶ For High Priority Fish Passage Barriers ODOT will address everything possible and necessary at the project site to improve fish passage without replacing the structure itself. This includes improving outlet conditions (where applicable) to address jump height into the culvert and/or provide a backwater condition at the culvert outlet.

3. ODOT will provide ODFW fish passage restoration funds to offset the delay in full fish passage at the repair culverts as a result of this Agreement. This passage restoration fund account will be funded with \$2 million dollars at the beginning of the agreement to offset the delay in passage for the first 40 culverts repaired under the agreement. For each culvert repaired after the first 40, ODOT will contribute an additional \$50,000 dollars to the fund. ODOT anticipates repairing approximately 20 culverts each year under the five year agreement for a projected total of 100 culverts repaired and \$5 million dollars of restoration funding.
4. ODFW will manage and administer these funds to specifically address high priority fish passage projects statewide regardless of ODOT ownership and independent of geographic location. ODFW will use generally accepted accounting practices to manage these funds and shall ensure these funds are allocated in the most expeditious and cost effective means while maximizing benefit to native migratory fish.
5. ODOT will continue to fund at least \$4.2 million annually into the ODOT Fish Passage Program for the term of this agreement. The ODOT fish passage funding will be used to address the ten year passage implementation plan administered by ODOT.
6. During the year prior to the target year for proposed culvert repairs: By February 28th (typically 16 months in advance of the target in-water work window), ODOT will provide ODFW a list of potential culverts to be repaired during the following year's in-water work period under the terms of this Agreement for each year of the Agreement. ODFW will review and approve the list based on criteria in Section II.4.a-e above, by June 1st, or within 90 days of receiving the list. By October 1st ODFW will provide ODOT with the following information for each potential repair project at the repair site:
 - a) Native Migratory Fish Species present
 - b) Migratory timeframes of concern
 - c) Existing fish passage impediments
 - d) Recommendations to improve fish passage conditions
 - e) Recommended in-water work window
7. ODOT and ODFW will collaboratively develop fish passage improvements for each repair site, based on site conditions and constraints, hydraulic conditions, and the needs of Native Migratory Fish. ODOT will provide fish passage design concepts to ODFW for review and comment by February 28th of the year of proposed culvert repairs. ODFW will document concurrence with the design approach by March 31st, or within a month of receiving the fish passage design concepts.
8. ODOT will fund an ODFW/ODOT Liaison position to help implement this Agreement.
9. Culvert repair actions not authorized by this Agreement require specific approval by ODFW if the repair actions meet the trigger definition. This Agreement does not preclude ODOT from pursuing other options to address or comply with fish passage laws at ODOT structures.
10. ODOT is responsible for obtaining all other state and federal permits and permissions necessary for completion of activities approved by the Agreement.
11. All in-water work associated with this Agreement will occur during the appropriate ODFW in-water work window, or as negotiated.
12. This Agreement in no way purports or authorizes take of a federally listed species.

13. Pursuant to OAR 635-412-0035 (1 and 10) ODOT is responsible for following all best management practices during construction/maintenance activities to protect fish, wildlife, and their habitats. These BMP's include but are not limited to, adequately dewatering and isolating worksites, performing fish salvages, and providing adequate downstream passage, bypass, and screening if necessary.

IV. POST-PROJECT OBLIGATIONS

1. **Maintenance.** ODOT is responsible for all maintenance required such that culverts repaired under this Agreement continue to provide the improved level of fish passage that was achieved under this Agreement.
2. **Inspection and Record-Keeping.** ODFW may inspect any road-stream crossing for which ODOT is responsible (ORS 509.625 and OAR 635-412-0020(3)(b)(D)). If inspection of a culvert repair site installed under this Agreement indicates that fish passage improvements are not functioning as intended, ODFW shall notify ODOT. ODOT shall work with ODFW to determine the cause and, during a work period approved by ODFW, expeditiously rectify problems as necessary (OAR 635-412-0020(3)(b)(E)).
3. **Monitoring and Reporting.** ODOT and ODFW will implement a monitoring plan prior to project construction that will include pre and post repair project site analyses of fish passage conditions. ODOT, or its designee, shall monitor and report all repair projects implemented under this agreement to verify that fish passage improvement(s) function as intended. Monitoring shall be completed after winter and spring channel forming high flow events in years 1, 3, and 5 after completion of each culvert repair and fish passage improvement. Monitoring shall identify native migratory fish species and life stages affected at each culvert repair site and the quantity and quality of habitat above each barrier. Monitoring shall consist of a best professional judgment assessment by a qualified fisheries biologist of fish passage conditions. This includes noting any water surface jumps, channel adjustments, streamflow velocity characteristics, channel bed stability, scour occurrence, and other relevant data to ensure the project is functioning as designed for fish passage. Pre- and post-treatment photographs of each site shall be included in the monitoring reports. If monitoring indicates that fish passage is not being provided consistent with project intent, ODOT shall consult with ODFW, determine the cause, and during a work period approved by ODFW, expeditiously rectify problems as necessary (OAR 635-412-0020(3)(b)(E)). If in the final year, post-project assessment reveals a successful project and that fish passage has not deteriorated, then the project will be removed from the post-project monitoring obligations. ODOT remains responsible for the ongoing maintenance necessary to ensure the improved level of fish passage continues to function until the next trigger event.
4. **Annual Report.** By February 1st of each year of the Agreement, ODOT shall provide an Annual Electronic Report on all culverts repaired under this Agreement. The Annual Electronic Report shall consist of:
 - a) Narrative discussion of program activities,
 - b) Map of culverts repaired under program,
 - c) Description and date of repair action(s) performed at each culvert under the Agreement,
 - d) Description of how fish passage was improved at each culvert repaired under the Agreement,
 - e) Project specific monitoring results from monitoring efforts identified in # 3 above,
 - f) Estimate of fish habitat upstream of each culvert, and
 - g) List of species present at each culvert.
 - h) Analysis of estimated annual cost savings of culvert repairs made vs. the cost of culvert replacements.

5. Final Report. At the conclusion of the pilot project each agency shall provide a final report.
 - a) ODFW shall provide a final pilot project analysis and report on the effect(s) of the pilot project on fish passage. The report will include: site locations, native migratory fish species, quantity and quality of habitat upstream of barriers for both the:
 - I. effects of the culvert repairs and the fish passage improvements made at each repair site, and
 - II. fish passage improvements implemented with the fish passage funds (defined in Section III(3) of this agreement), administered by ODFW.
 - b) ODOT shall provide a final project report on the effect(s) of the pilot project on maintaining the highway infrastructure. The report will include: number of culverts repaired, improvements to infrastructure condition, the cost effectiveness of repairs relative to infrastructure benefits, and an analysis of the cost savings of culvert repairs made vs. the cost of culvert replacements.
 - c) These reports will be used to develop a strategy to address the culvert infrastructure issue(s) on the State highway system and the needs of native migratory fish. Final reports shall be complete by June 30, 2023.

6. Coordination Meetings. Staff from ODOT and ODFW affected by this Agreement, will meet annually, or as otherwise deemed appropriate, to collaboratively review projects implemented under this Agreement and evaluate adaptive management measures, as appropriate.

V. GENERAL PROVISIONS

1. Notice. The parties' contact persons for all notices provided for under this Agreement, except as specifically provided otherwise, are as follows:

Agency	ODFW	ODFW Technical	ODOT	ODOT Technical
Name	Greg Apke	Pete Baki	William Warncke	Wade Holaday, P.E.
Title	ODFW Fish Passage Coordinator	ODFW/ODOT Liaison	ODOT Fish Passage Program Team Leader	ODOT Culvert Maintenance Engineer
Address	4034 Fairview Industrial Dr. SE Salem, OR 97302	4034 Fairview Industrial Dr. SE Salem, OR 97302	4040 Fairview Industrial Dr. SE Salem, OR 97302	4040 Fairview Industrial Dr. SE MS #6 Salem, OR 97302-1142
Phone	503-947-6228	503-947-6234	503-986-3459	(503) 986-4046
E-Mail	greg.d.apke@state.or.us	Pete.Baki@state.or.us	William.M.Warncke@odot.state.or.us	Wade.HOLADAY@odot.state.or.us

Either party may change a designated contact person at any time by providing written notice to the other party.

2. Amendments. Amendments to this Agreement may be made within applicable laws at the mutual agreement and signature of the ODFW Fish Screens and Passage Program Manager and the ODOT Environmental Resources Unit Manager.

3. Term. This Agreement is entered into on the date of last signature by and between ODFW and ODOT, both representing the State of Oregon. This Agreement expires Dec 31, 2022.

4. Termination. This Agreement may be terminated at any time through mutual agreement by the parties or by either party after a 30-day written notice. If terminated, culverts previously repaired consistent with this Agreement will not be subject to additional fish passage requirements beyond maintenance as described in IV(1), until an additional trigger event may occur.

XXXXXXXXXXXXXXXXXXXXX Date
Oregon Department of Transportation

XXXXXXXXXXXXXXXXXXXXX Date
Chair, Oregon Fish and Wildlife Commission

Appendix A

Examples of ODOT culvert repair actions* allowed under the Culvert Repair Programmatic Agreement that currently trigger fish passage laws

Strip line
Spot and localized repairs
Spray on coating
Cured in place technology
Spiral wound
Pave invert
Add or extend end treatments
Replace interior sections of culvert**
Replace road pavement and sub base above culverts

*The intent of the culvert repairs allowed under the programmatic agreement is to provide (up to) an additional 10 to 25 years of culvert life. The actual life of the culvert and repair will depend on site specific conditions. These repairs are considered short-term fixes, not in effect a culvert replacement that provides a new design life.

** This technique is intended to replace 1 to 3 segments of a pipe that have broken or failed prematurely. It is not intended to replace the majority of the pipe.

Culvert repair techniques not listed above are allowed provided they fully meet all requirements of this agreement. Culvert repair techniques not listed above will be discussed by the ODFW and ODOT contacts identified in section V prior to implementation.

Full traditional Slip-line culvert repairs are specifically excluded from this Programmatic Agreement.