OREGON DEPARTMENT OF FISH AND WILDLIFE

Fish Passage WAIVER Application

- *Use this form if providing fish passage at the artificial obstruction for which a Waiver is being requested would benefit native migratory fish.*
- *Use the "Fish Passage EXEMPTION Application" if a waiver has already been granted for the artificial obstruction, fish passage mitigation has already been provided for the artificial obstruction, or if there would be no appreciable benefit for native migratory fish if passage were provided at the artificial obstruction.*
- *If you unlock and re-lock this Form, information already entered may be lost in certain versions of MS Word.*

APPLICANT INFORMATION

The Applicant must be the owner or operator of the artificial obstruction for which a Waiver is sought.

ORGANIZATION/APPLICANT: Oregon Department of Transportation (ODOT)
CONTACT: Corissa Anderson-Horvath
TITLE: Region Environmental Coordinator (REC) and Biologist Region 2
ADDRESS: 455 Airport Rd SE Bld. B
CITY: Salem **STATE:** Oregon **ZIP:** 97301
PHONE: (971) 707-1629
FAX:
E-MAIL ADDRESS: corissa.anderson-horvath@odot.oregon.gov

SIGNATURE:  **DATE:** 10/30/2026

OWNER (*if different than Applicant*)**:**
CONTACT: **TITLE:**
ADDRESS:
CITY: **STATE:** **ZIP:**
PHONE:
FAX:
E-MAIL ADDRESS:

SIGNATURE: _____ **DATE:** _____
Signature indicates that you understand and do not dispute this request.

APPLICATION COMPLETED BY (*if different than Applicant*)**:**
TITLE:
ORGANIZATION:
ADDRESS:
CITY: **STATE:** **ZIP:**
PHONE:
FAX:
E-MAIL ADDRESS:

SIGNATURE: _____ **DATE:** _____

ARTIFICIAL OBSTRUCTION (*for which a Waiver is being requested*)

1. TYPE OF ARTIFICIAL OBSTRUCTION:

- ☐ Dam
- ☒ Culvert/Bridge
- ☐ Tide gate
- ☐ Other (describe):

New ☐ Existing ☒

2. PLEASE PROVIDE A BACKGROUND AND DESCRIPTION OF THE PROPOSED ACTION TRIGGERING THE NEED TO ADDRESS FISH PASSAGE: Culverts under OR 22 at Mile-points 7.70 and 7.76 have failed. In September of 2021, the failed culvert section at Mile-point 7.7 resulted in a portion of the highway embankment failing, threatening the active roadway. To reestablish flow and allow for emergency embankment repair, a new culvert end section was installed in the channel. No work occurred at Mile-point 7.76. Both of these culverts carry an unnamed tributary of Salt Creek and were determined by ODFW to have potential for cutthroat trout use. The emergency replacement of the culvert end segments of mile-point 7.7 resulted in a fish passage trigger.

3. PASSAGE WILL NOT BE PROVIDED FOR THE FOLLOWING REASON(S): The culvert is under 16.5 feet of fill. To replace the culvert, a significant construction effort is needed. OR 22 in this segment is a designated lifeline route for emergency services, and full highway closure is not feasible. No local detours are available. Keeping the highway open during construction would require a significant diversion structure and would impact several acres of mature forested riparian area. Trenchless options are too cost prohibitive for this structure and would also have a large and negative impact on adjacent properties. These culverts are also within a dynamic geotechnical slide area, resulting in significant and complicated stabilization approaches with no funding available.

4. DATE THE TRIGGER ACTION IS SCHEDULED TO BEGIN *(a minimum of four to six months should be planned for the waiver process after ODFW receives your application; requests that must go before the Commission will take longer)***:** The end section was replaced as an emergency fix to stabilize OR 22 in September of 2021.

5. LOCATION

COUNTY:	Polk County	
ROAD CROSSING (if applicable)**:**	near Hart Road	
RIVER/STREAM:	Unnamed Tributary of Salt Creek	
TRIBUTARY OF:	Salt Creek	
BASIN:	Yamhill Basin	
COORDINATES[a]**:**	Longitude: 45.003596°W	Latitude: 123.367612°N

[a] *Geographic projection using NAD_83 and formatted as decimal degrees to at least 4 places.*

6. STREAM DESCRIPTION

6A. BARRIER TABLE: Mile-point 7.70 culvert (*please provide the following information for barriers, which will help determine the benefit of providing passage at the Artificial Obstruction; indicate measurement units if applicable*)**:**

	DOWNSTREAM					UPSTREAM			
Locations	3	C/N	2	1	AO	1	2	E	*example*
Type	D		C	C	C	D			C
Length	5.65 feet		60 ft	30 ft	132 ft	20 ft			80 ft

Distance	4.12 miles		0.78 miles	700 ft		1299			1,200 ft
Level	3		1	2	4	5			5

Type = C (culvert/bridge), D (dam), T (tide gate), N (natural; *describe below*), O (other; *describe below*)
Length = length of the barrier in the stream (e.g., culvert's length, dam's width/footprint)
Distance = distance from the Artificial Obstruction (to closest point of other barriers)
Level = amount of passage at the barrier using the following codes:
5 - barrier to all native migratory fish
4 - barrier to some native migratory fish adults and/or species
3 - barrier to some native migratory fish adults and/or species for only part of migration period
2 - barrier to all native migratory fish juveniles
1 - barrier to some native migratory fish juveniles and/or for only part of migration period

LOCATIONS:
AO = the existing or proposed Artificial Obstruction
1,2 = other barriers in the same stream as the Artificial Obstruction
3 = downstream barrier outside the immediate stream in which the Artificial Obstruction is located (*only needed if C/N is a confluence rather than a complete natural barrier*)
E = end of historic native migratory fish use, including all tributaries (i.e., potential range without any artificial barriers in place)
C/N = first downstream confluence or complete natural barrier, whichever comes first

NOTE: The *example* indicates that there is a culvert which is 80 feet long, is located 1,200 feet from the Artificial Obstruction in question, and is a complete fish passage barrier.

6A. BARRIER TABLE: Mile-point 7.76 culvert (*please provide the following information for barriers, which will help determine the benefit of providing passage at the Artificial Obstruction; indicate measurement units if applicable***):**

	DOWNSTREAM					UPSTREAM			
Locations	3	C/N	2	1	AO	1	2	E	*example*
Type	D		C	C	C	C			C
Length	5.65 feet		60 ft	30 ft	132 ft	20 ft			80 ft
Distance	4.12 miles		0.78 miles	700 ft		191 ft			1,200 ft
Level	3		1	2	4	5			5

Type = C (culvert/bridge), D (dam), T (tide gate), N (natural; *describe below*), O (other; *describe below*)
Length = length of the barrier in the stream (e.g., culvert's length, dam's width/footprint)
Distance = distance from the Artificial Obstruction (to closest point of other barriers)
Level = amount of passage at the barrier using the following codes:
5 - barrier to all native migratory fish
4 - barrier to some native migratory fish adults and/or species
3 - barrier to some native migratory fish adults and/or species for only part of migration period
2 - barrier to all native migratory fish juveniles
1 - barrier to some native migratory fish juveniles and/or for only part of migration period

LOCATIONS:
AO = the existing or proposed Artificial Obstruction
1,2 = other barriers in the same stream as the Artificial Obstruction
3 = downstream barrier outside the immediate stream in which the Artificial Obstruction is located (*only needed if C/N is a confluence rather than a complete natural barrier*)
E = end of historic native migratory fish use, including all tributaries (i.e., potential range without any artificial barriers in place)
C/N = first downstream confluence or complete natural barrier, whichever comes first

NOTE: The *example* indicates that there is a culvert which is 80 feet long, is located 1,200 feet from the Artificial Obstruction in question, and is a complete fish passage barrier.

PLEASE PROVIDE ADDITIONAL DESCRIPTIONS FOR THOSE BARRIERS INCLUDED IN THE BARRIER TABLE OR FOR OTHER BARRIERS AFFECTING NATIVE MIGRATORY FISH MOVEMENT TO OR FROM THE ARTIFICIAL OBSTRUCTION: The dam directly upstream of the highway culvert is approximately 20 feet wide with a driveway that is no longer being used on it. It is a full barrier to all fish passage as determined by ODFW. The first culvert downstream of the highway is located under a private driveway. It includes a large perch, resulting in large jump heights during most of the year. In addition, the stream is constrained into this 18" undersized culvert, creating significant water velocities during high flows. The second culvert under a county road also has a large jump and is undersized. The dam downstream of these culverts is a reservoir dam that impounds water during summer months and is a full barrier for several months out of the year, and a partial barrier the rest of the year.

6B. SUMMARY TABLE (*please provide the following information relative to the Artificial Obstruction, which will help determine the benefit of providing passage at it*)**:**

	DOWNSTREAM	UPSTREAM
NMF Species Present Currently	Cutthroat trout	Cutthroat trout
NMF Species Present Historically	Cutthroat trout and winter steelhead	Cutthroat trout
Habitat Quality	poor	poor
Flows	26.4 cfs (2 year reoccurrence)	26.4 cfs (2 year reoccurrence)
Water Quality	poor	poor
Water Right Availability	N/A	N/A
Land Use/Zoning	Farmland	Farmland
NMF = native migratory fish		

PLEASE PROVIDE ADDITIONAL DETAILS REGARDING THE INFORMATION PROVIDED IN THE SUMMARY TABLE (*such as species listed under the state or federal ESA and descriptions of the stream channel and riparian habitat*)**:** Information on fish presence was provided by ODFW District Biologist Kevin Stertz. ODOT and ODFW staff walked the site in 2024. The stream channel above the culvert did not have any spawning habitat and provided limited rearing habitat. The channel was found to be incised most of the distance to the upstream dam. This reach had little or no lower riparian story but did have an overstory of large trees. The average ACW was determined to be 5' 6" by ODOT and ODFW. Please see photos of upstream, downstream, the highway culvert, and the first downstream culvert barrier under the private driveway.

6C. PROVIDE THE SOURCE FOR INFORMATION CONTAINED IN THE BARRIER AND SUMMARY TABLES: Internal ODOT Hydraulics and expert opinion of ODOT Biologist, Oregon Fish Habitat Distribution and Barriers Viewer, and ODFW Liaison Pete Baki and District Biologist Kevern Stertz, ODFW Fish Passage Barriers List.

7. PLEASE PROVIDE A DESCRIPTION OF HOW CLIMATE CHANGE MAY IMPACT THE WAIVER SITE (*if known***):** Climate prediction models show potential for inland flooding at a midcentury occurrence interval, reduced mean snowpack, and changes to intensity and frequency of intense rain fall events.

MITIGATION (*attach additional copies of this section if multiple mitigation sites are proposed*)

1. DESCRIBE THE MITIGATION TO BE PROVIDED: ODOT proposes to contribute to the removal of Penitentiary Dam on Mill Creek, a tributary to the Willamette River in Salem. Several partners have come together to advance design, permitting and oversee construction of this Statewide High-priority barrier removal project. The North Santiam Watershed Council was successful in obtaining a NOAA Fish

Passage Restoration Grant for a bundle of projects, including Penitentiary Dam. ODOT owns the property around the dam, and will complete in-house design review, scour analysis, develop and execute agreements, and other necessary pre-construction activities as in-kind contribution to this important project.

2. DISTANCE BETWEEN MITIGATION SITE(S) AND ARTIFICIAL OBSTRUCTION: 21 miles

3. OWNER (*if different than Applicant*)**:**

CONTACT: **TITLE:**
ADDRESS:
CITY: **STATE:** **ZIP:**
PHONE:
FAX:
E-MAIL ADDRESS:

4. DATE THE MITIGATION IS SCHEDULED TO BE COMPLETED: SUMMER of 2027

5. LOCATION

COUNTY: Marion
ROAD CROSSING (if applicable)**:** Kuebler
RIVER/STREAM: Mill Creek
TRIBUTARY OF: Willamette River
BASIN: Willamette River Basin
COORDINATES[a]**:** Longitude: -122.9783042 °W Latitude: 44.8873101 °N

[a] *Geographic projection using NAD_83 and formatted as decimal degrees to at least 4 places.*

6. STREAM DESCRIPTION

6A. BARRIER TABLE (*please provide the following information for barriers, which will help determine the benefit of the Mitigation site; indicate measurement units if applicable*)**:**

	DOWNSTREAM					UPSTREAM			
Locations	3	C/N	2	1	M	1	2	E	*example*
Type			D	D	D	D			D
Length			20	4	20 ft	5 ft			8 ft
Distance			4 miles	2.75 miles		218.33 miles			1,700 ft
Level			1	1	3	5			1

LOCATIONS: M = the Mitigation site

NOTE: The *example* indicates that there is a dam which is 8 feet wide in the stream, is located 1,700 feet from the Mitigation in question, and is a seasonal or partial fish passage barrier for juveniles only.

See **ARTIFICIAL OBSTRUCTION: 6A. BARRIER TABLE** for further details regarding this table.

PLEASE PROVIDE ADDITIONAL DESCRIPTIONS FOR THOSE BARRIERS INCLUDED IN THE BARRIER TABLE OR FOR OTHER BARRIERS AFFECTING NATIVE MIGRATORY FISH MOVEMENT TO OR FROM THE MITIGATION: THE Penitentiary Dam is listed at number 77 in the ODFW 2025 Statewide High-Priority Fish Passage Barrier list. It contains Spring Chinook salmon (fT), Winter Steelhead (fT), Pacific lamprey, Largescale sucker, Northern pikeminnow, Cutthroat trout, and Coho salmon. The T&E score is 60 and Habitat Quality score of 70 making it huge uplift for mitigation. The next barrier dam below

Penitentiary Dam is the Shelton Ditch Water Dam, which is an ODFW level 1 barrier. The next barrier downstream is the Waller Dam, which is also part of the part of the Noth Santiam Watershed Council NOAA Grant award. The Waller Dam fish ladder has declined in recent years due to build-up of sediment behind the dam and fish screen, creating concerns over fish passage (Action 160-SUB-NS, page7-25 and 224 of the Upper Willamette River (UWR) Conservation and Recovery Plan for Chinook Salmon and Steelhead (Recovery Plan)) and flood risk.

6B. SUMMARY TABLE (*please provide the following information relative to the Mitigation, which will help determine its benefit*)**:**

	DOWNSTREAM	**UPSTREAM**
NMF Species Present Currently	Spring Chinook salmon (fT), Winter Steelhead (fT), and Coho salmon	Spring Chinook salmon (fT), Winter Steelhead (fT), and Coho salmon
NMF Species Present Historically	Spring Chinook salmon (fT), Winter Steelhead (fT), and Coho salmon	Spring Chinook salmon (fT), Winter Steelhead (fT), and Coho salmon
Habitat Quality	Good	Excellent
Flows	2060 cfs (2 year reoccurrence)	2060 cfs (2 year reoccurrence)
Water Quality	good	good
Water Right Availability	Santiam Water District	Santiam Water District
Land Use/Zoning	Industrial	Farmland and forest
NMF = native migratory fish		

PLEASE PROVIDE ADDITIONAL DETAILS REGARDING THE INFORMATION PROVIDED IN THE SUMMARY TABLE (*such as species listed under the state or federal ESA and descriptions of the stream channel and riparian habitat*)**:** Penitentiary Dam is located in Salem city limits, upstream of Waller Dam and is a significant fish passage barrier. This dam is on the ODFW fish passage barrier list for its effects on Federally threatened UWR spring Chinook and winter steelhead. Removal of this dam will restore stream connectivity to 21.6 miles of Mill Creek and tributaries. The fish ladder is no longer functional, and the Santiam Water Control District no longer has a need for the dam; they are supportive of this project.

This NOAA-funded project, sponsored by the North Santiam Watershed Council (NSWC) with cooperation from the Santiam Water Control District, includes the removal of an unused irrigation weir on Mill creek near the historic Oregon state penitentiary in Salem, Oregon. The project will replace the existing weir with an engineered riffle designed to maintain channel grade, improve aquatic habitat, and restore volitional fish passage. Mill creek historically and continues to provide habitat for salmonids including upper Willamette River winter steelhead, upper Willamette River Spring Chinook salmon, and introduced Fall Chinook salmon.

6C. PROVIDE THE SOURCE FOR INFORMATION CONTAINED IN THE BARRIER AND SUMMARY TABLES: Information in the barrier table came from ODFW 2025 Priority Barrier List, ODOT Biologist, ODFW staff, the NOAA Application, and DRAFT 60% Design Plans furnished by the North Santiam Watershed Council.

7. DESCRIBE HOW THE MITIGATION RELATES TO ANY EXISTING FISH MANAGEMENT PLANS, INCLUDING THE OREGON PLAN: This project is identified in the Upper Willamette River (UWR) Conservation and Recovery Plan for Chinook Salmon and Steelhead (Recovery Plan) by Oregon Department of Fish & Wildlife, The State of Oregon, and NOAA Fisheries, Northwest Region. This project supports the key performance metrics identified in the Oregon Plan for Salmon and Heathy Watersheds.

8. DESCRIBE ANY KNOWN RESTORATION OR LAND USE PLANS WHICH MIGHT HAVE AN IMPACT ON THE MITIGATION *(e.g., is the watershed included within an expanded Urban Growth Boundary or does a Local Comprehensive Plan limit future development in the watershed)***:** No negative effects to this mitigation are anticipated through future restoration or land use plans. The property is owned by ODOT and has an existing wetland mitigation site that is protected in perpetuity.

9. IF THE MITIGATION ENTAILS PROVIDING PASSAGE AT AN EXISTING ARTIFICIAL BARRIER, WHAT IS THE EXPECTED DATE OF REPLACEMENT OR MAJOR REPAIR FOR THE STRUCTURE IF IT WERE NOT USED AS MITIGATION: ODOT owns the property and there are no other plans to remove it outside of this action.

10. DOES THE MITIGATION INCLUDE ANY ACTIVITY THAT IS A REQUIREMENT OR CONDITION OF ANY OTHER AGREEMENT, LAW, PERMIT, OR AUTHORIZATION *(if "Yes", describe)***:** No. The project is partially funded by a NOAA Grant and will adhere to the requirements of the grant. Additional provisions and conditions are anticipated through DSL, ACOE, County LUCS, and flood plain permits.

11. DESCRIBE HOW THE MITIGATION WILL BE FUNDED *(include a cost estimate, funding sources, and whether funds are currently secured)***:** The project is partially funded by a NOAA grant with match funds provided by the North Santiam Watershed Council. Funding for ODOT staff time, design review, agreement drafting and corresponding Department of Justice review, access permits, and other ODOT related activities are funded by State Highway Trust Fund.

12. DESCRIBE HOW THE MITIGATION WILL BE EVALUATED, MONITORED, AND MAINTAINED: This will be completed through an agreement between the North Santiam Watershed Counsel and ODOT.

13. PLEASE PROVIDE A DESCRIPTION OF HOW CLIMATE CHANGE MAY IMPACT THE MITIGATION SITE (*if known***):** Project benefits include increased access to spawning and rearing habitat for juveniles and adults, improved habitat quality, access to cold water refugia from the Willamette River, and adaptation to climate change as changing precipitation regimes in the Pacific Northwest (PNW) drive increased peak flows. It is also anticipated that more intense and more frequent rain-dominated storms and drier summers can reduce available stream flows. Socioeconomic project benefits include hazard reductions for local communities, increased public access, community education and engagement.

MAP(S)

- *Please attach one or more maps indicating the Artificial Obstruction, Mitigation, the streams on which they are located, and other barriers in those streams. A 7.5 minute USGS quad map is sufficient.*

☒ -- Map(s) included

PHOTOS

- *Please include photographs of the following* (*.JPG files are preferred):*

☒ -- Artificial Obstruction
☒ -- Mitigation Site(s)
☒ -- up- and downstream habitat at the Artificial Obstruction and Mitigation Site(s)
☒ -- other barriers up- and downstream of the Artificial Obstruction and Mitigation Site(s)

Please submit this application electronically to the ODFW Fish Passage Coordinator at fish.passage@ODFW.Oregon.gov or mail to the ODFW Fish Passage Coordinator at 4034 Fairview Industrial Dr. SE, Salem, OR 97302.

Attachment B: Net Benefit Analysis

MEMORANDUM

Department of Fish and Wildlife
Intra Departmental

Date: November 5, 2026

To: Pete Baki, ODFW-ODOT Fish Passage Liaison
Kevin Rybacki, ODFW-ODOT Fish Passage Liaison

From: Elise Kelley, Mid-Willamette District Fish Biologist
Kevin Stertz, North Willamette District Fish Biologist

Subject: **OR22 MP 7.7 & 7.76 Culvert Failure - Fish Passage Waiver Net Benefit Analysis**

Introduction

The Oregon Department of Fish and Wildlife (ODFW) was notified by the Oregon Department of Transportation (ODOT) on May 13, 2021, that a culvert failure occurred on OR 22 MP 7.7. ODOT declared an emergency on September 15, 2021, and ODFW issued an emergency fish passage approval (PA-02-0322ER). This allowed ODOT to address the culvert right away to ensure highway safety and address the fish passage trigger at a later date either by providing fish passage at the site, or by seeking a fish passage waiver. To address fish passage, ODOT decided to pursue a fish passage waiver and provide mitigation in lieu of providing passage at the culvert located at MP 7.7. This culvert conveys an Unnamed Tributary to Salt Creek that supports cutthroat trout, a Native Migratory Fish (NMF) (OAR 635-412-0005(33). Another culvert connected to the same unnamed tributary, located at OR 22 MP 7.76, also failed during the same emergency. While no remediation action was taken during 2021 at this culvert, ODOT is planning for a future repair and has requested this culvert be included in this fish passage waiver application.

It is the policy in the state to provide fish passage at artificial obstructions, as per Oregon Revised Statute (ORS) 509.585. Construction, as defined in OAR 635-412-0005(10) is a trigger under Oregon Fish Passage Rules. ODFW received the fish passage waiver request on October 30, 2026. ODFW's Fish Passage Program, in coordination with the Mid-Willamette and North Willamette Coast Range District,

have reviewed the ODOT fish passage waiver application for the repaired culverts at the OR22 MP 7.7 and OR22 MP 7.76 road crossings. The waiver site is in the ODFW North Willamette Coast Range Watershed District and the mitigation site is in the ODFW Mid-Willamette Watershed District. The waiver sites and the mitigation site are both in the Willamette Oregon Water Resources Department Basin and consistent with the ODFW Fish Passage Mitigation Policy that requires mitigation occur in proximity (within the same basin) to the waiver site (OAR 635-415).

ODOT seeks a fish passage waiver for the emergency work completed in 2021 (waiver location) as permissible in ORS 509.585. In lieu of not providing fish passage at the two culverts located at OR 22 MP 7.7 (45.003388860, -123.367565860) and OR22 MP 7.76 (45.002934, -123.366795), ODOT proposes to contribute administrative funds to the removal of the Penitentiary Dam on Mill Creek in Salem, OR. Penitentiary Dam removal project will be implemented by the Santiam Water Control District (owner/operator) and the North Santiam Watershed Council. ODOT's in-kind funding contribution to the project constitutes ODOT's fish passage mitigation plan for the two culverts mentioned above.

The purpose of this Net Benefit Analysis, as required by ORS 509.585(7)(b), is to evaluate ODOT's fish passage waiver proposal and to make a determination whether or not the proposed mitigation, in lieu of providing fish passage at the two culvert sites (waiver sites), provides a net benefit to NMF greater than if passage was provided at the waiver sites. ODFW has reviewed the fish passage waiver request. The following information describes the waiver sites, the proposed mitigation alternative (mitigation site), ODFW's Net Benefit Analyses, final determination, and concludes with a recommendation on the proposed fish passage waiver request.

Figures and Photographs of both the waiver and mitigation site are available in Appendix A. See Figures 1 and 2 for the locations of the waiver and mitigation sites.

Waiver Sites

ODOT is seeking a waiver from fish passage for the two culverts located on OR22 MP 7.7 and MP 7.76. OR22 MP 7.76 is an unnamed tributary of the Unnamed Tributary to Salt Creek that is conveyed by the culvert at MP 7.7. The OR22 MP 7.7 site has had emergency work that has triggered fish passage. Although the culvert at OR22 MP 7.76 has not triggered fish passage, the culvert is in need of future repairs and has been included in the fish passage waiver package to address

mitigation requirements. Photos 1 and 2 show the culvert failure and the emergency repair at MP 7.7 that trigger ORS 509.585.

OR22 MP 7.7

The first waiver site culvert is located on an Unnamed Tributary to Salt Creek at OR 22 MP 7.7 (See Figure 3) northwest of Dallas, OR in Polk County (45.003388860, -123.367565860). Salt Creek is a tributary of Hoekstre Slough in the Willamette Basin. This Unnamed Tributary drains a basin area of ~ 0.47 square miles above OR 22, with a mean annual precipitation of ~53.963 inches– see Figure 4. The basin upstream of the highway is considered farmland and the area downstream of the highway can be described as rural residential. The NMF (OAR 635-412-0005(33) in this stream includes coastal cutthroat trout. Pete Baki (ODFW), Brad Gohr (ODFW) and Ron Francis (ODOT) surveyed the site on 2/23/2024 to determine the end of NMF use and to determine the habitat quality within the Unnamed Tributary above the highway. An inactive, derelict earthen dam located 1,303 feet (0.246 miles) above the highway was determined to be a complete fish passage barrier (see Photos 3 and 4) and defines the upstream extent of NMF distribution.

There are suitable spawning gravels in the Unnamed Tributary to Salt Creek for coastal cutthroat trout, and the substrate consists primarily of a mix of fines, sands and gravels with some larger cobbles. The riparian corridor through this reach is in stable condition and is dominated by deciduous trees, bushes and smaller plants. The channel upstream of the highway to the barrier has an average active channel width of 5.6 feet. The channel above OR22 is mostly incised and constrained by hill slope. The creek was dry during a site visit October 29, 2026, by Pete Baki (ODFW). Photos 5-7 document the substrate, habitat and riparian conditions within the Unnamed Tributary to Salt Creek that is conveyed by the OR22 MP 7.7 culvert.

The existing 3-foot diameter culvert is 165 feet long. The culvert failure caused the downstream bank to erode and fail, causing the highway's southern edge to sluff into the creek. Repairs to the culvert and highway included installing a cement wall along the highway and replacing the damaged exposed culvert downstream with a new 3-foot plastic pipe to roughly the same configuration. The passage level of the existing culvert, as determined by ODFW North Willamette District staff, is considered a category three passage barrier. This category of fish passage is

described in the Oregon Department of Fish and Wildlife 2025 Fish Passage Priority List[1] is defined as:

- 3 - barrier to some native migratory fish adults and/or species for only part of migration period

Factors used to determine the passage level of the existing culvert are based on professional opinion, culvert length, culvert slope, culvert size in relation to the average active channel length and the NMF species present. The passage level category three, with some fish able to pass upstream through the culvert, requires ODOT to mitigate for 60% of the distance above the culvert. This action will reduce the distance needed to mitigate at this culvert to 0.1476 miles at this culvert.

OR22 MP 7.76

The second waiver site culvert is located on an Unnamed Tributary to an Unnamed Tributary to Salt Creek. This is a small spring fed creek, which provides cold water. This site has not triggered fish passage at this time but is being included as it will need future work. This small creek has an average active channel width of 1.5' and has a defined channel that NMF could potentially use for habitat for 191' (0.036 miles). This Unnamed Tributary flows under OR22 through a 73-foot long, 18-inch diameter concrete culvert. The existing culvert has separated on the downstream end of the OR22 crossing and is currently a complete fish passage barrier – see Photos 8 and 9. Given the complete blocking of fish passage (see footnote 1), ODOT must mitigate for full extent of habitat situated upstream of the culvert location which has been determined to be 0.036 miles.

Historic NMF in this creek was determined to be coastal cutthroat trout. This creek has functional riparian cover and is located in the same area consisting of farmland as the MP7.7 culvert. While gravels are present in this creek, this creek was likely used by coastal cutthroat trout for high flow and temperature refugia. The creek was dry during the October 29, 2026, site visit completed by Pete Baki (ODFW). Figure 3 shows the end of fish use for both unnamed Tributaries.

[1] ODFW 2025 Statewide Fish Passage Priority List: https://www.dfw.state.or.us/fish/passage/docs/inventories/2025%20Fish%20Passage%20Priority%20List%20Methods.pdf

Table 1. Summary of benefits that would result from providing ODFW design criteria fish passage at the OR22 MP 7.7 and OR22 MP 7.76 culverts.

Waiver Site	NMF Species	Habitat Upstream of Waiver Site (Miles)	Passage Level	Adjusted Distance (Miles)	Primary Benefit
OR22 MP 7.7	Coastal Cutthroat Trout	0.246	3	0.1476	Rearing, spawning, high flow refugia
OR22 MP 7.76	Coastal Cutthroat Trout	0.036	5	0.036	Rearing, high flow and cold water refugia
Total				0.1836	

The mitigation credit needed to create a net benefit on a linear distance comparison by providing fish passage at a mitigation site will need to exceed 0.1836 miles (determined by combining the two waiver sites). For ODFW to approve this waiver application, ODOT needs to provide mitigation that will result in a NMF benefit greater than if passage were provided at this location. This document represents ODFW's assessment of ODOT's proposed mitigation action and whether this action provides a greater benefit to NMF when compared to the two waiver sites with fish passage. The mitigation action and ODFW's analysis are described below.

Mitigation Site

ODOT is proposing mitigation at Penitentiary Dam (44.88730, -122.978343), an artificial obstruction to NMF on Mill Creek, in Salem, Oregon. This mitigation is intended to offset the lack of providing passage at OR22 MP 7.7 and 7.76 (Figure 1). To facilitate implementation of the fish passage restoration (dam removal) project, ODOT proposes to contribute in-kind administrative costs required to authorize right-of-way access for a dam removal project located on ODOT property. Penitentiary dam is owned and operated by the Santiam Water Control District and this project is being implemented by the Santiam Watershed Council through the Mid-Valley Rivers Connections[2]. Penitentiary Dam is approximately 6.8 miles upstream from the confluence with the Willamette River on Mill Creek.

[2] Mid-Valley River Connections consists of the Calapooia, Luckiamute, Marys River, North Santiam, and South Santiam Watershed Councils.

This dam was constructed to divert and deliver water to multiple entities within the SWCD's irrigation network. With the recent urban development of the land surrounding the dam, the majority of the water rights have been reclaimed by the SWCD and there is no longer a need to maintain the structure. There is a fish ladder on Penitentiary Dam, but it is no longer functioning, requiring fish to navigate and pass over the dam apron. Currently, Penitentiary Dam has a passage level of three according to the ODFW 2025 ODFW Statewide Passage Priority List Methods Document[3]:

- 3 - barrier to some native migratory fish adults and/or species for only part of migration period some native migratory fish juveniles and/or for only part of migration period.

The Santiam Watershed Council also plans on removing Waller Dam, 4.5 miles downstream on Mill Creek below Penitentiary Dam as part of the same project. Photos 10-12 show Penitentiary Dam.

Mill Creek is a relatively large tributary of the Willamette River. Mill Creek drains a basin of 105 square miles above Penitentiary Dam (Figure 5). This basin receives on average 51.8 inches of rain per year. Average active channel width in this stream reach where the dam is situated is approximately 40 feet. Land use above the dam includes industrial, rural residential, timberland and farmland and is situated in mostly private ownership. Photos 13-19 show habitat in Mill Creek and its tributaries above Penitentiary Dam. Mill Creek has a low gradient in the reach that contains Penitentiary Dam. The riparian zone appears to be functioning well along Mill Creek with some exceptions upstream of the culvert where areas that have few trees as the creek moves through agricultural fields. Given the size of the basin, all substrate types are present in Mill Creek: fines, gravels, cobbles and boulders. There are abundant areas with suitable substrates for NMF to spawn. There are approximately 218.33 miles of NMF habitat above Penitentiary Dam. Penitentiary Dam is in Group 8 of the ODFW 2025 Statewide Fish Passage Prioritization List[4].

The project proponents plan to permanently remove the dam and install a roughened riffle that meets ODFW fish passage design criteria (OAR 635-412). Given the low gradient through the project site, a roughened riffle is a suitable low risk method to ensure NMF passage at this site. The project is expected to be implemented during the in-water work period of 2027 and grant funding utilized to fund the dam removal project expires at the end of 2027.

[3] See footnote 1.
[4] https://www.dfw.state.or.us/fish/passage/docs/inventories/2025%20Priority%20Barrier%20List.xlsx

Table 2. Summary of benefits of providing fish passage for coastal cutthrout trout (species present at waiver site) at Penitentiary Dam.

NMFS Species	Total Miles Opened	Passage Level	Adjusted Distance (Miles)	Primary Benefit
Coastal Cutthroat Trout	218.33	3	131	Spawning and Rearing

OAR 635-412-0040(9)(c) requires that mitigation benefits the same NMF species affected at the trigger site. The table above addresses coastal cutthroat trout which are the NMF species historically present at the OR22 MP 7.7 and 7.76 waiver sites. Mill Creek is presently occupied by and provides spawning and rearing habitat for other NMF including spring Chinook, coho, winter steelhead, Pacific lamprey, largescale sucker and northern pikeminnow.

Net Benefit Analysis and Determination

As described above, the mitigation proposed by ODOT includes contributing in-kind administrative funds to the Penitentiary Dam removal project. ODOT owns the surrounding land. Access to implement the project will require access through and across ODOT property. Given this site access issue, ODOT must perform administrative right-of-way work, engineering design review and generate a legal agreement with the project proponents to facilitate dam removal project implementation. ODOT, as presented in the fish passage waiver application, estimates the administrative costs associated with project facilitation and implementation at $45,254.93. This in-kind funding contribution constitutes ODOT's financial investment for the dam removal project.

The Santiam Watershed Council estimates the total cost to remove Penitentiary Dam and install a roughened riffle to be $785,000. ODOT proposes to contribute 5.45% of the total project implementation cost. After considering barrier information, dam removal and construction of the roughened riffle will yield improved access to an adjusted estimate of 131 miles of quality habitat. Applying ODOT's 5.45% contribution results in mitigation credit for 7.14 miles of habitat for cutthroat trout. This exceeds the 0.1836 miles of habitat needed to exceed the distance at the trigger sites. Furthermore, the habitat in the Unnamed Tributaries to Salt Creek at OR22 MP 7.7 and 7.76 is of substantially lower quality than in Mill Creek. The Mill Creek mitigation site also benefits more NMF species.

Conclusion and Recommendation

The ODFW Mid-Willamette and North Willamette Coast Range District Fish Biologists conclude that the proposed mitigation action, in lieu of providing passage at the waiver site, will result in a net benefit to NMF. As discussed in this analysis, the mitigation action occurs at Penitentiary Dam, a high-priority fish passage barrier, identified in the 2025 ODFW Statewide Fish Passage Priority Barrier List. Habitat in the Unnamed Tributaries to Salt Creek at OR22 MP 7.7 and 7.76 is of substantially lower quality than in Mill Creek and the differences in the active channel width are significant. Therefore, equal linear length of habitat in Mill Creek creates a greater overall area of physical habitat when compared to the same distance in the Unnamed Tributaries to Salt Creek. ODOT's in-kind funding contribution to the Penitentiary Dam removal project will provide more linear distance than provided at the waiver sites. The proposed mitigation provides a net benefit for coastal cutthroat trout greater than the waiver site if passage was provided. The proposed mitigation action will provide benefits to additional NMF species present in the Mill Creek basin when compared to the coastal cutthroat trout present at the waiver sites.

The ODFW Mid-Willamette and North Willamette Coast Range District Fish Biologists recommend the approval of the ODOT Proposed mitigation waiver request and concludes a net benefit will be provided through the implementation of the dam removal and a new roughened riffle as described in the net benefit analysis.

Appendix A

Figure 1. Location of the waiver site and the mitigation site.

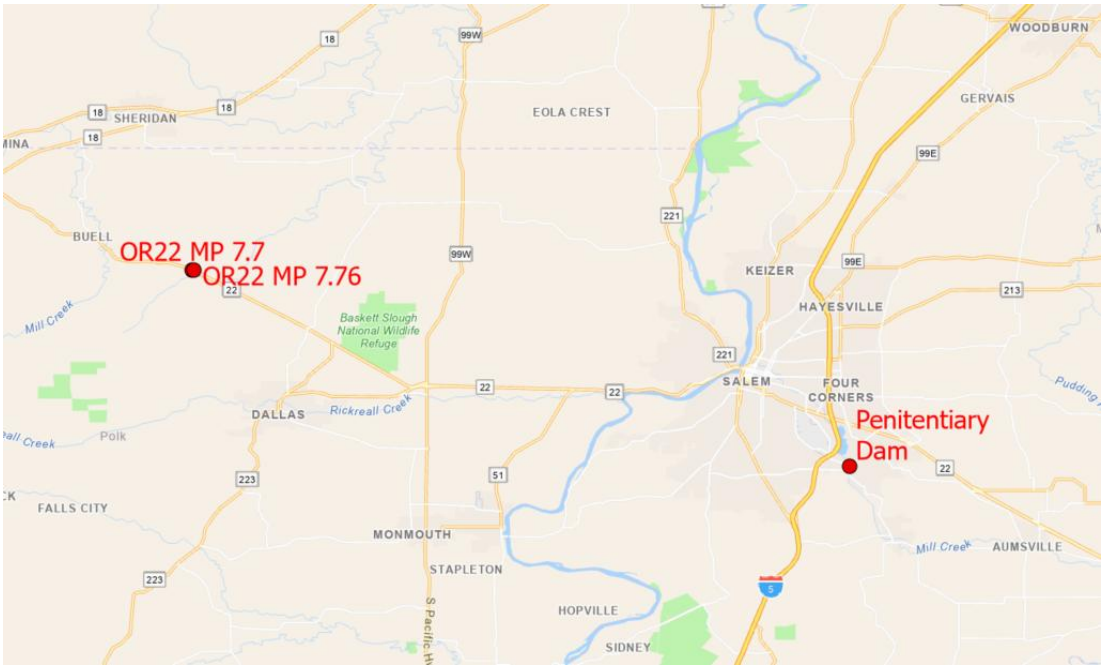


Figure 2. Location of the waiver site (OR 22 MP 7.7and OR 22 MP 7.76)

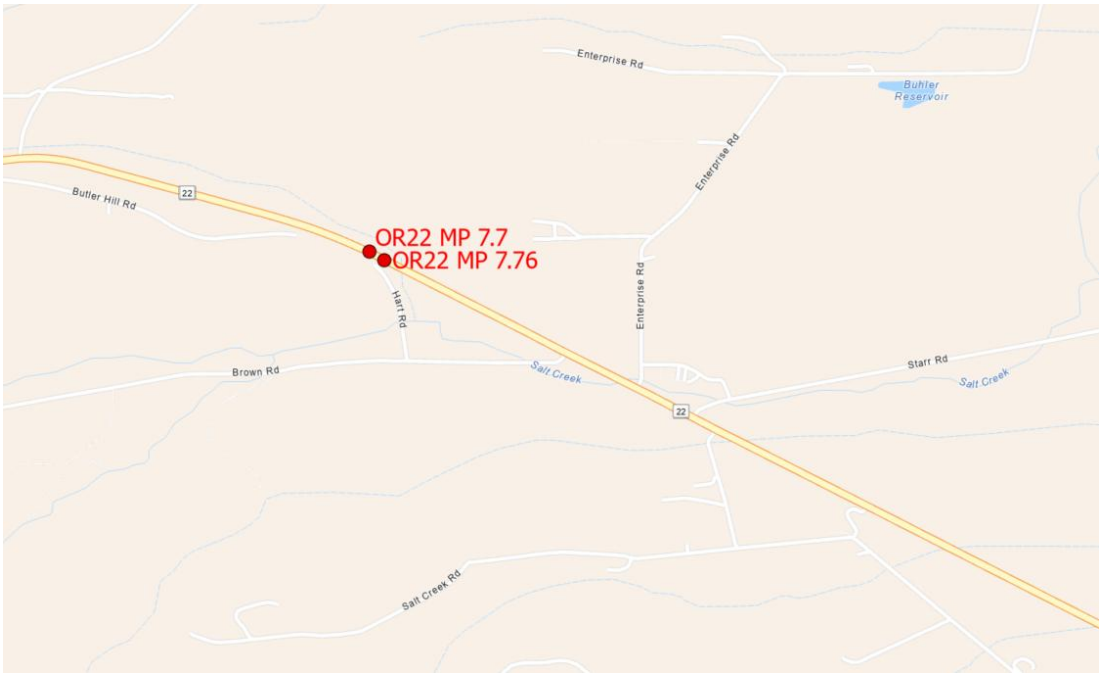


Figure 3. The end of fish use on OR22 MP 7.7 (left) and 7.76 (right).

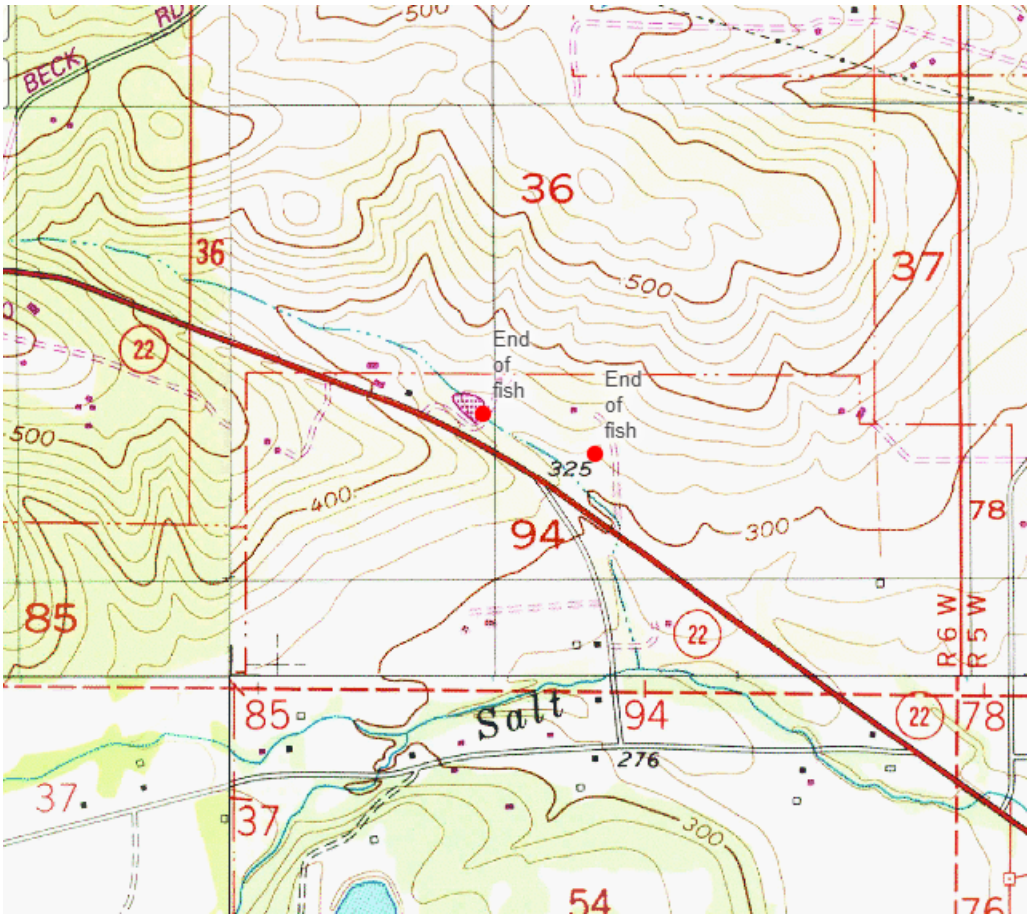


Figure 4. Map of the basin of the Unnamed Tributary of Salt Creek at OR22 MP 7.7.

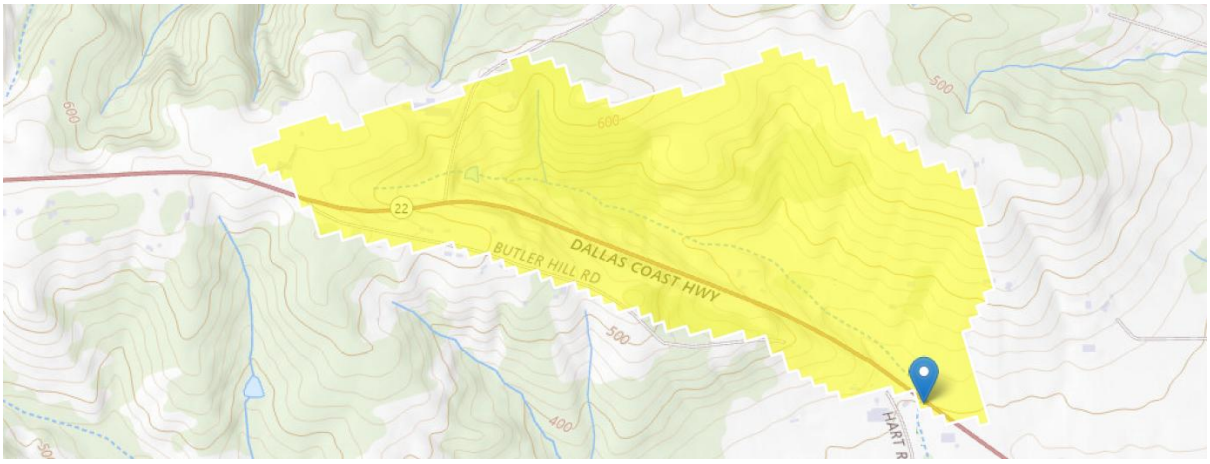


Figure 5. Map of the Mill Creek basin above Penitentiary Dam.4

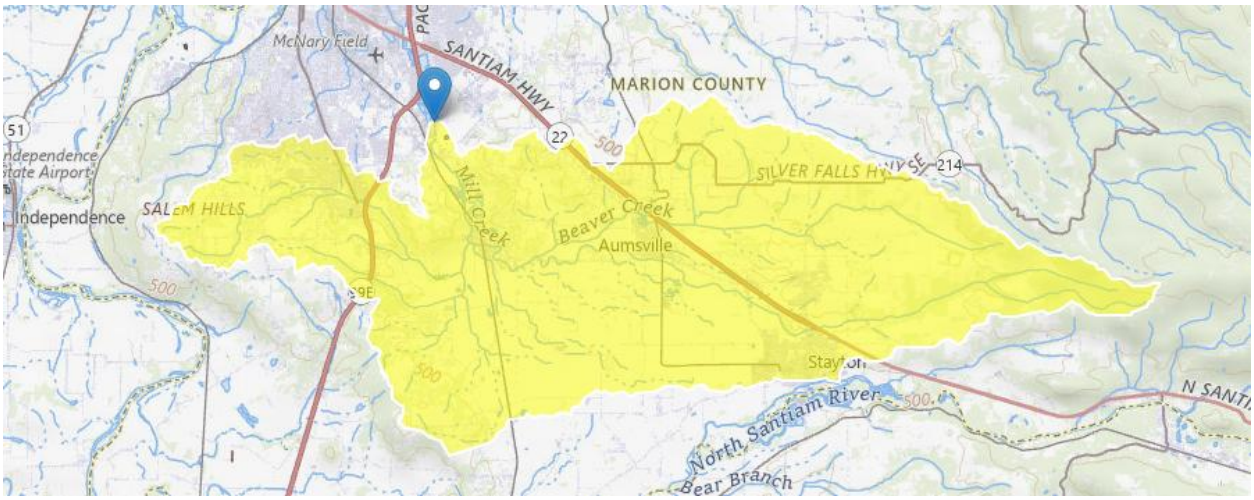


Photo 1. OR22 MP 7.7 culvert failure.



Photo 2. The completed emergency repair at OR22 MP 7.7. The culvert outlet can be seen at the center bottom of the photo.



Photo 3. Photo of the existing damaged dam structure that creates a complete barrier to native migratory fish passage. A fallen tree is obscuring parts of the dam.



Photo 4. View from the top of the dam on the Unnamed Tributary to Salt Creek (OR22 MP 7.7) looking downstream.



Photo 5. Gravel present upstream of OR22 MP 7.7 culvert in the Unnamed Tributary to Salt Creek.



Photo 6. Photo of habitat conditions of the Unnamed Tributary to Salt Creek (OR22 MP 7.7)



Photo 7. Photo of habitat conditions of the Unnamed Tributary to Salt Creek (OR22 MP 7.7)



Photo 8. OR22 MP 7.76 prior to the culvert separating.



Photo 9. OR22 MP 7.76 after culvert Failure



Photo 10. Penitentiary Dam (photo by Santiam Watershed Council).



Photo11. Penitentiary Dam.



Photo 12. The toe of Penitentiary Dam at summer flows.



Photo13. Looking downstream from Penitentiary Dam



Photo 14. Looking upstream from Penitentiary Dam



Photo 15. Mill Creek at Turner Creek Park (44.851358, -122.959954).



Photo 16. Mill Creek at Denver Street SE in Turner, OR (44.842085, -122.946396)



Photo 17. Mill Creek at 75th Place Street (44.843458, -122.905587)



Photo 18. Beaver Creek, tributary of Mill Creek at 75th Place Street (44.845642, -122.905641)



Photo 19. Mill Creek at Golf Club Road SE (44.825232, -122.823325)



Attachment C: Draft Fish Passage Waiver Agreement

OREGON DEPARTMENT OF TRANSPORTATION
OR22 MP 7.7 AND 7.76
FISH PASSAGE WAIVER AGREEMENT
(W-02-0045)

This Agreement is entered into on the date of last signature by and between State of Oregon through its Oregon Department of Fish and Wildlife, hereinafter referred to as "the Department", and the Oregon Department of Transportation, hereinafter referred to as "the Applicant".

PREAMBLE

The Applicant seeks authorization from the Department to waive fish passage requirements (ORS 509.585) at two culverts located at OR22 MP 7.7 and OR22 MP 7.76 (waiver site) where they convey Unnamed Tributaries of Salt Creek, a tributary of Hoekstre Slough in Polk County, Oregon. The waiver site culverts have triggered ODFW Fish Passage rules through an emergency repair after a culvert failure at OR22 MP 7.7 and will trigger due to future work needed at OR22 MP 7.76 after a recent culvert failure. In exchange, the Applicant will contribute in-kind funds to the removal of Penitentiary Dam and the implementation of a roughened channel on Mill Creek, a tributary of the Willamette River in Marion County, Oregon.

The Applicants' Fish Passage Waiver Application # W-02-0045 (Attachment A) and the Department's benefit analysis (Attachment B), required by ORS 509.585(7)(b) are attached and hereby incorporated into this agreement.

The Applicant has authorized full funding for their in-kind contribution portion of the project and has authorized entering into this waiver agreement with the Department.

PROVISIONS OF THE AGREEMENT

1. Pursuant to ORS 509.585 and OAR 635-412-0025(1), (9), and (11)(a)(A), the Department hereby waives the requirements for the artificial obstructions at the waiver location because it determines that the alternative mitigation the Applicant has agreed to results in a net benefit to native migratory fish.
2. The location of the artificial obstructions and proposed mitigation site shall only be those specified in Attachments A and B.
3. The Applicant shall provide fish passage mitigation by implementing the mitigation package identified in Attachments A and B. The Applicant has authorized the financing, that will cover the costs of the mitigation action of this Agreement.
4. Specific mitigation design plans for the proposed mitigation shall meet Department fish design passage criteria and guidelines and shall be approved by the Department prior to installation. The Applicant shall be responsible for obtaining all other necessary permissions and permits as appropriate for the implementation of the mitigation.
5. The mitigation identified in Attachments A and B shall not be used to comply with any other legal requirements of the Applicant or others, except as allowed in OAR 635-412-0040(3).
6. Mitigation identified in this Agreement shall be completed by the end of 2027. Mitigation shall be completed prior to or concurrently with the waiver action.
7. All in-water work associated with the mitigation action shall be completed during the appropriate Department in-water work period(s), or otherwise as modified by the Department.
8. Failure to maintain fish passage at the mitigation site, required by ORS 509.910, for the duration of this Agreement shall constitute a violation of this Agreement and applicable fish passage laws (ORS 509.585). Such failure shall invalidate this fish passage waiver and shall require the Applicant to provide fish passage at the artificial obstruction or seek alternative mitigation if not remedied in a reasonable amount of time or mitigated with some other project(s) acceptable to the Department. Department shall notify the Applicant of such violation and allow Applicant a reasonable amount of time to rectify such violation.
9. The Department shall be allowed to inspect the mitigation site at reasonable times for the duration of this Agreement with prior notice, appropriate property owner permission, and with a representative of the Applicant present.
10. The Applicant may employ or contract with other parties to perform work under this Agreement but remains responsible for the mitigation, monitoring and reporting.
11. This Agreement is solely for the purpose of fulfilling Oregon fish passage statutory requirements and responsibilities administered by the Commission or the Department and does not satisfy any other Department, federal, state, or local laws, rules, or regulations, including but not limited to State or Federal Endangered Species Acts, any applicable water rights, instream flow requirements, approvals, or certificates administered by Oregon Water Resources Department.
12. This Agreement in no way purports or authorizes take of a state or federally listed species.

13. This Agreement shall be valid and remain in effect until such time and so long as the Applicant fully implements and continues to provide the agreed-upon mitigation measures identified in Attachment A and until the waived artificial obstructions triggers (further construction, a fundamental change in permit status, or abandonment) fish passage laws again, as required in OAR 635-412-0025(4) and ORS 509.585.

Signature:	_____	_____
	Oregon Department of Transportation Date	Oregon Department of Fish and Wildlife Date
Name:	Daniel Ohrn	Greg Apke
Title:	ODOT Region 2 Environmental Manager	ODFW Fish Passage Program Manager