

**OREGON DEPARTMENT OF TRANSPORTATION
OR99S/SOUTH STAGE ROAD CULVERT
FISH PASSAGE WAIVER AGREEMENT
(W-15-0002)**

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 an existing culvert located on OR99S/South Stage Road (waiver site) where it conveys an Unnamed Tributary, a tributary of Bear Creek in Jackson County, Oregon. The waiver site culvert will trigger ODFW Fish Passage rules through a highway safety project by extending a culvert. In exchange, the Applicant will replace a fire damaged culvert with a criteria culvert on Blue Heron Creek, and complete habitat restoration on an Unnamed Tributary to Bear Creek.

The Applicants' Fish Passage Waiver Application # W-15-0002 (Attachment A) and the Oregon Department of Fish and Wildlife's (Department) 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 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 (10)(b)(A), the Department hereby waives the requirements for the artificial obstruction 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 obstruction and proposed mitigation sites 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 Attachment A and B. The Applicant has authorized the financing, that will cover the costs of the mitigation actions of this Agreement.
4. Specific mitigation design plans for the proposed mitigation shall meet Department fish 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 actions identified in this Agreement shall be completed by the end of 2027. Mitigation actions 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 ODFW in-water work period(s), or otherwise as modified by ODFW.
8. The Applicant shall maintain, monitor, evaluate the effectiveness of, and report on the mitigation as required under OAR 635-412-0040(8), and shall provide written status reports to the Department in years 1, 3 and 5, or as determined by the Department. Reports shall include photographs from established photo-points as part of the evaluation and monitoring. Monitoring and evaluation of the mitigation shall be conducted in years 1, 3 and 5 unless problems are observed that may require additional analysis. These reports shall consist of visual observations and post-construction as-built design plan inspection to ensure the project was built according to plans and to ensure design fish passage criteria were achieved. The restoration on the Unnamed Tributary to Bear Creek shall provide monitoring of either fish densities with the restoration reach or show improvements to the habitat through metrics such as pool density, pool depth etc. ODOT must work with ODFW on the monitoring plan metrics for the restoration on the Unnamed Tributary to Bear Creek. Reports shall be submitted to the ODFW-ODOT Fish Passage Liaison and the Rogue Watershed District Fish Biologist. Electronic or hard copy submissions are acceptable.
9. For the duration of this Agreement, the Applicant shall be responsible for all maintenance required such that the fish passage mitigation identified in Attachment A provides adequate volitional habitat access for native migratory fish and that the habitat restoration is functioning as designed. If monitoring by the Applicant or Department indicates that the mitigation is not functioning as designed, the Applicant, in consultation with the Department, shall determine the cause

and, during an in-water work period approved by the Department, shall modify the mitigation site to rectify problems as necessary.

10. Failure to maintain fish passage at the mitigation sites, 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 for the culvert at the waiver site 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.
11. The Department shall be allowed to inspect the mitigation sites at reasonable times for the duration of this Agreement with prior notice, appropriate property owner permission, and with a representative of the Applicant present.
12. The Applicant may employ or contract with other parties to perform work under this Agreement but remains responsible for the mitigation, monitoring and reporting.
13. 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.
14. This Agreement in no way purports or authorizes take of a federally listed species.
15. 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 obstruction triggers (further construction, a fundamental change in permit status, or abandonment) fish passage laws again, as required in OAR 635-412-0025(3) and ORS 509.585.

Signature: _____

Oregon Department of Transportation _____ Date _____

Oregon Department of Fish and Wildlife _____ Date _____

Name: Mark Thompson _____

Greg Apke _____

Title: ODOT Region 3 Environmental Manager _____

ODFW Fish Passage Program Manager _____

Attachment A: Fish Passage Waiver Application

DRAFT



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

CONTACT: Peter Samarin **TITLE:** Biologist, Region 3
ADDRESS: 100 Antelope Road
CITY: White City **STATE:** OR **ZIP:** 97503
PHONE: 541-592-9958
FAX:
E-MAIL ADDRESS: peter.a.samarin@odot.oregon.gov

SIGNATURE: Peter Samarin **DATE:** 8/5/2026

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 | New | ☐ |
| X | Culvert/Bridge | Existing | X |
| ☐ | Tide gate | | |
| ☐ | Other (describe): | | |

2. PLEASE PROVIDE A BACKGROUND AND DESCRIPTION OF THE PROPOSED ACTION TRIGGERING THE NEED TO ADDRESS FISH PASSAGE: OR99 North of Phoenix has a high traffic volume, and historically a high level of pedestrian use. The lack of sidewalks forced many people to walk, bike, or use mobility scooters in the roadway and to cross the five-lane road without crosswalks. The lack of pedestrian and bike facilities are a safety concern as there is a record of frequent fatal and serious injury crashes.

ODOT is proposing to upgrade OR99 from Matt Loop to the northern terminus of the OR99: Glenwood to Coleman Creek project between MP 9.40-10.18. Improvements will include widening of the road for sidewalks, ADA ramps, and bicycle lanes. A grind inlay and overlay across the full width of the existing pavement and the construction of an improved pedestrian crossing are proposed. The delineated crossing will include enhanced safety features such as a median island and rapid flashing beacons.

As part of the project, a culvert located under OR 99W at Milepoint 9.92 will be replaced. This culvert is connected to a privately owned culvert under the San George Estates and conveys an unnamed tributary of Bear Creek.

3. PASSAGE WILL NOT BE PROVIDED FOR THE FOLLOWING REASON(S): Passage will not be provided because it is not feasible to replace the culvert under San George Estates to fish passage criteria, and it is not feasible to re-route the unnamed tributary. It has been determined by ODFW that there is only about 150 feet of very poor habitat for NMF upstream of the culvert. ODOT believes mitigation in the form of habitat enhancement downstream of this site and off-site culvert removal will be much more beneficial to NMF than providing passage at this culvert.

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):* June 2027

5. LOCATION

COUNTY:	Jackson	
ROAD CROSSING (if applicable):	HWY 99	
RIVER/STREAM:	Un-named tributary	
TRIBUTARY OF:	Bear Creek	
BASIN:	Rogue	
COORDINATES^a:	Longitude: -122.8389°W	Latitude: 42.2920°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 providing passage at the Artificial Obstruction; indicate measurement units if applicable):*

	DOWNSTREAM					UPSTREAM			
Locations	3	C/N	2	1	AO	1	2	E	<i>example</i>
Type			C	C	C				C
Length			95 ft	620 ft	116 ft				80 ft
Distance			1,550 ft	0 ft					1,200 ft
Level			3	5	4				5
Type = C (culvert/bridge), D (dam), T (tide gate), N (natural; <i>describe below</i>), O (other; <i>describe below</i>) 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 (<i>only needed if C/N is a confluence rather than a complete natural barrier</i>) 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 <i>example</i> 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: Culvert 1 from the barrier table is directly connected to the trigger site. Culvert 2 is downstream of that location and is passable to NMF under certain conditions as between Culvert's 1 and 2 is where ODFW shocked juvenile steelhead. It is believed that Culvert 1 is likely not passable.

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	Steelhead (juveniles)	None
NMF Species Present Historically	Steelhead (juveniles), cutthroat, juvenile Coho/Chinook, suckers	Steelhead (juveniles), cutthroat
Habitat Quality	Poor	Very poor
Flows	Perennial (as far as we know)	Perennial
Water Quality	Moderate	Poor to moderate depending on time of year
Water Right Availability	Not listed on OWRD water availability reporting website, stream is too small	Not listed on OWRD water availability reporting website, stream is too small
Land Use/Zoning	Multi family	General Industrial, Multi family, EFU
<i>NMF = native migratory fish</i>		

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*): ODOT expects most NMF found in the interior Rogue will potentially use the

enhanced section of the un-named tributary for winter refuge based on ODFW hoop trap data on similar streams. This includes juvenile SONCC Coho salmon which are federally threatened, juvenile fall Chinook salmon, juvenile summer and winter steelhead, cutthroat trout, and suckers. The stream channel upstream of the trigger culvert has mostly mud/organic material as substrate, and a riparian zone dominated by non-native blackberry. The channel downstream of the trigger has sections made up of grass/wetland plant species but also has sections where there are gravels and cobbles with a healthier riparian zone which includes willow and cottonwood trees.

6C. PROVIDE THE SOURCE FOR INFORMATION CONTAINED IN THE BARRIER AND SUMMARY TABLES: ODFW, ODOT, Rogue River Watershed Council

7. PLEASE PROVIDE A DESCRIPTION OF HOW CLIMATE CHANGE MAY IMPACT THE WAIVER SITE (if known): Unknown

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

1. DESCRIBE THE MITIGATION TO BE PROVIDED: ODOT is proposing two separate mitigation actions for this trigger. The first proposal is to complete a habitat enhancement project on the un-named tributary in the lower 1,000 feet to the confluence with Bear Creek (Site 1). Habitat enhancements include; large woody material additions, grading/contouring the stream channel to remove over-grown grasses, and riparian enhancement. These enhancements are specially targeted at providing increased and high value overwinter rearing habitats. It is anticipated that cool water and summer off channel refugia will also be provided through these actions. The second mitigation proposal (Site 2) is to remove a partial culvert barrier on Blue Heron Creek which is located 2 miles south of the trigger/restoration site. This location has been identified as seasonal barrier to juveniles, and a cold-water refuge (part of the “Miricle Mile”) from Bear Creek due to spring dominated influences.

2. DISTANCE BETWEEN MITIGATION SITE(S) AND ARTIFICIAL OBSTRUCTION (SITE 1): Stream restoration occurring at Site 1 will begin directly downstream from culvert 2 (1,600 ft from trigger) on the un-named tributary.

2. DISTANCE BETWEEN MITIGATION SITE(S) AND ARTIFICIAL OBSTRUCTION (SITE 2): Site 2 on Blue Heron Creek is located approximately 2.1 miles south of the AO.

3. OWNER *(if different than Applicant):* Jackson County (Site 1)

CONTACT:		TITLE:
ADDRESS:	10 S. Oakdale Ave	
CITY:	Medford	STATE: OR ZIP: 97501
PHONE:		
FAX:		
E-MAIL ADDRESS:		

3. OWNER *(if different than Applicant):* State of Oregon (ODOT)

CONTACT:	Peter Samarin	TITLE: Biologist, Region 3
ADDRESS:	100 Antelope Rd	
CITY:	White City	ZIP: 97503
PHONE:	541-592-9958	
FAX:		
E-MAIL ADDRESS:	peter.a.samarin@odot.oregon.gov	

4. DATE THE MITIGATION IS SCHEDULED TO BE COMPLETED (SITE 1): June 2027

4. DATE THE MITIGATION IS SCHEDULED TO BE COMPLETED (SITE 2): June 15 – Sept 15, 2027

5. LOCATION (SITE 1)

COUNTY: Jackson
ROAD CROSSING (if applicable):
RIVER/STREAM: UN-NAMED TRIBUTARY
TRIBUTARY OF: Bear Creek
BASIN: Rogue River
COORDINATES^a: Longitude: -122.8354°W Latitude: 42.2958°N

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

5. LOCATION (SITE 2)

COUNTY: Jackson
ROAD CROSSING (if applicable):
RIVER/STREAM: Blue Heron Creek
TRIBUTARY OF: Bear Creek
BASIN: Rogue River
COORDINATES^a: Longitude: -122.8125°W Latitude: 42.2730°N

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

6. STREAM DESCRIPTION

6A. BARRIER TABLE (SITE 1) (please provide the following information for barriers, which will help determine the benefit of the Mitigation site; indicate measurement units if applicable):

Locations	DOWNSTREAM				M	UPSTREAM			example
	3	C/N	2	1		1	2	E	
Type						C	C		D
Length						95 ft	620 ft		8 ft
Distance						0 ft	900 ft		1,700 ft
Level						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 first culvert, which is adjacent to mitigation Site 1, is to convey the un-named tributary under the Bear Creek Greenway. It is an approximately 4 foot diameter CMP that likely does not meet fish passage criteria although juvenile steelhead have been found upstream of it. The second culvert conveys the un-named tributary under HWY 99 and a housing development and is presumed to be impassable to all fish due to its length.

6. STREAM DESCRIPTION

6A. BARRIER TABLE (SITE 2) (please provide the following information for barriers, which will help determine the benefit of the Mitigation site; indicate measurement units if applicable):

Locations	DOWNSTREAM				M	UPSTREAM			example
	3	C/N	2	1		1	2	E	
Type					C				D
Length					30 ft				8 ft
Distance									1,700 ft
Level					3				1
LOCATIONS: M = the Mitigation site NOTE: The <i>example</i> 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: There are no other barriers affecting NMF movement within Blue Heron Creek.

6B. SUMMARY TABLE (SITE 1) (please provide the following information relative to the Mitigation, which will help determine its benefit):

	DOWNSTREAM	UPSTREAM
NMF Species Present Currently	Steelhead (juveniles)	Steelhead (juveniles)
NMF Species Present Historically	Steelhead (juveniles), cutthroat, juvenile Coho/Chinook, suckers	Steelhead (juveniles), cutthroat
Habitat Quality	Poor	Poor to very poor
Flows	Perennial (as far as we know)	Perennial
Water Quality	Moderate	Poor to moderate depending on time of year
Water Right Availability	Not listed on OWRD water availability reporting website, stream is too small	Not listed on OWRD water availability reporting website, stream is too small
Land Use/Zoning	County property, not zoned	General Industrial, Multi family, EFU
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): ODOT expects most NMF found in the interior Rogue will potentially use the enhanced section of the un-named tributary for winter refuge based on ODFW hoop trap data on similar streams. This includes juvenile SONCC Coho salmon which are federally threatened, juvenile fall Chinook salmon, juvenile summer/winter steelhead, cutthroat trout and suckers. The stream channel upstream of the mitigation is comprised of mud and gravel with cat tails and grass. The riparian area is made up of alder, cottonwood, and blackberry. The channel within the mitigation site has sections made up of grass/wetland plant species but also has sections where there are gravels and cobbles with a healthier riparian zone which includes willow and cottonwood trees.

6B. SUMMARY TABLE (SITE 2) (please provide the following information relative to the Mitigation, which will help determine its benefit):

	DOWNSTREAM	UPSTREAM
NMF Species Present Currently	None documented yet	None documented yet
NMF Species Present Historically	Steelhead (juveniles), cutthroat, juvenile Coho/Chinook, cutthroat, suckers	Steelhead (juveniles), cutthroat, juvenile Coho/Chinook, cutthroat, suckers
Habitat Quality	Moderate	Moderate
Flows	Perennial	Perennial
Water Quality	Good, spring fed	Good, spring fed
Water Right Availability	Not listed on OWRD water availability reporting website, stream is too small	Not listed on OWRD water availability reporting website, stream is too small
Land Use/Zoning	State property, not zoned	City property, not zoned
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): ODOT expects most NMF found in the interior Rogue will potentially use the enhanced section of Blue Heron Creek for winter refuge based on ODFW hoop trap data on similar streams. This includes juvenile SONCC Coho salmon which are federally threatened, juvenile fall Chinook salmon, juvenile summer/winter steelhead, cutthroat trout and suckers. However, since Blue Heron Creek has only recently been re-connected to Bear Creek (summer 2026) comprehensive fish presence studies have not taken place and current fish use has not been determined. Additionally, due to the cool water and static stream fed flow, Blue Heron Creek might also provide summer rearing habitat for NMF as well. The stream channel on Blue Heron Creek ranges from approx. 4-6 feet in width and the substrate is composed of sand, gravel, and small to medium sized cobble. The riparian area currently has newly established alder, cottonwood, willow along with some non-native weeds.

6C. PROVIDE THE SOURCE FOR INFORMATION CONTAINED IN THE BARRIER AND SUMMARY TABLES: ODFW, ODOT, Rogue River Watershed Council

7. DESCRIBE HOW THE MITIGATION RELATES TO ANY EXISTING FISH MANAGEMENT PLANS, INCLUDING THE OREGON PLAN: This mitigation package will address primary limiting factors negatively affecting NMF in the interior Rogue by removal of a fish passage barrier and restoration of instream and riparian habitat. All three actions are stated as primary limiting factors to salmonids in the Oregon Plan for Salmon and Watersheds, the Rogue/South Coast Multispecies Plan (ODFW 2017) and the Recovery Plan for SONCC Coho Salmon, NOAA Fisheries.

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. Both properties are either State or Jackson County owned.

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: There are no plans to complete habitat restoration actions on the unnamed tributary (Site 1), or replace the culvert at Blue Heron Creek (site 2) outside of this proposal.

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

11. DESCRIBE HOW THE MITIGATION WILL BE FUNDED *(include a cost estimate, funding sources, and whether funds are currently secured)*: Funds to complete the habitat restoration work at site 1 will be sourced from FHWA as part of the OR 99 Glenwood to Matt Loop project. Funds to replace the culvert on Blue Heron Creek will be sourced from the ODOT Major Culvert Maintenance Program using State Highway Trust Funds. Funds for both of these projects have been allocated.

12. DESCRIBE HOW THE MITIGATION WILL BE EVALUATED, MONITORED, AND MAINTAINED: Habitat restoration at Site 1 will be monitored post construction during low and high flow events to ensure the desired ecological uplift is achieved. Site 2 will be monitored in years 1, 3 and 5 post construction to ensure fish passage is being provided as designed and approved.

13. PLEASE PROVIDE A DESCRIPTION OF HOW CLIMATE CHANGE MAY IMPACT THE MITIGATION SITE *(if known)*: Climate change will make Site 1 and 2 more valuable habitats as climate change is forecast to create more intense rain events making winter/spring off channel habitat in already over channelized Bear Creek more valuable for NMF.

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.*

X -- Map(s) included

PHOTOS

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

X -- Artificial Obstruction

X -- Mitigation Site(s)

X -- up- and downstream habitat at the Artificial Obstruction and Mitigation Site(s)

X -- 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: August 31, 2026

To: Pete Baki, ODFW-ODOT Fish Passage Liaison

From: Frank Drake, ODFW Rogue Watershed District Fisheries Biologist

Subject: **Oregon Department of Transportation Request for a Fish Passage Waiver – South Stage Road/OR99S – Net Benefit Analysis W-15-0002**

Introduction

It is a policy in the state to provide fish passage at artificial obstructions, as per Oregon Revised Statute (ORS) 509.585. Culvert extensions, as defined in Oregon Administrative Rule (OAR) 635-412-0010(d)(E) trigger the state's fish passage policy and requires the owner/operator to address fish passage. The Oregon Department of Transportation (ODOT) is pursuing a fish passage waiver at an existing culvert located at South Stage Road and OR99S in Jackson County where the proposed project will extend an existing culvert. The Oregon Department of Fish and Wildlife (ODFW) received the fish passage waiver request application for this project on August 5, 2026. ODFW's Fish Passage Program, in coordination with the Rogue Watershed District, have reviewed the ODOT fish passage waiver application for a culvert extension at the existing road crossing culvert between South Stage Road and OR99S.

ODOT seeks a fish passage waiver for the proposed culvert extension project (waiver location) as permissible in ORS 509.585. In lieu of not providing passage at this location, ODOT proposes to replace a culvert on Blue Heron Creek and also proposes to complete habitat improvements in an Unnamed Tributary to Bear Creek below the South Stage Road culvert (see Figure 1). Together these two actions constitute ODOT's mitigation plan (mitigation site locations) for not providing passage at the waiver location. Figures and photographs of both the waiver and mitigation site locations are available in Appendix A.

OR99, North of Phoenix, Oregon experiences high traffic volumes, and historically high levels of pedestrian use. The lack of sidewalks in this area forces many pedestrians to walk, bike, or use mobility scooters in the roadway and to cross the five-lane road, where there presently are no crosswalks. The lack of pedestrian and bicycle facilities presents a safety concern as there are ODOT records of frequent fatal and serious injury crashes.

ODOT proposes to upgrade OR99 from Matt Loop to the northern terminus of OR99: Glenwood to Coleman Creek project between MP 9.40-10.18 (see figure 2). ODOT safety improvements will include widening of the road and extending a culvert to allow new sidewalks, ADA ramps, and new bicycle lanes. A grind-out inlay and overlay across the full width of the existing pavement and the construction of an improved pedestrian crossing are proposed. The delineated crossing will include a median island and rapid flashing beacon enhanced safety features. The culvert extension component of the proposed project triggers fish passage at the culvert, as per OAR 635-412-0005(10).

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 mitigation site(s) provides a net benefit to native migratory fish (NMF) greater than if passage was provided at the waiver site. ODFW has reviewed the fish passage waiver request. The following information describes the waiver site and the proposed mitigation alternatives (mitigation sites) and describes ODFW's net benefit analyses, final determination and recommendation.

Waiver Site

The Unnamed Tributary to Bear Creek is located in Pheonix, (42.29247, -122.838997) in Jackson County, Oregon. The Unnamed Tributary drains a basin of approximately 0.7 square miles with a mean annual precipitation of 20.51 inches. Much of the basin is in agricultural land use above the railroad line and residential below. Below South Stage Road, the unnamed stream channel follows a bike path, crosses through a culvert under the path and continues through Jackson County land where it enters Bear Creek. Currently, coastal cutthroat trout exists 545 feet upstream at a barrier at a railroad culvert. A juvenile steelhead trout was sampled using electro-fishing methods by Rogue District ODFW staff in January of 2025 (see Photo 1). Cutthroat trout and steelhead trout are NMF as defined in OAR 635-412-0005(33). Limited but some suitable spawning habitat is available in the unnamed tributary for cutthroat trout but not for adult steelhead. See Figure 3 for the location and length of the entire Unnamed Tributary to Bear Creek. Habitat in

the unnamed tributary to Bear Creek is like other valley-bottom creeks in the area such as Mingus Creek that contain NMF but have been heavily anthropogenically modified or altered by land use such as ditching, channelization and other artificial obstructions like instream dams. The unnamed tributary to Bear Creek above the OR99S culvert is marginal habitat which is also typical for waterways in this area that contain NMF. Photos 4-7 show the general characteristics of the stream habitat and current conditions. Streambed substrate composition in the unnamed tributary is mostly composed of fines and gravels.

The culvert inlet is on the east side of OR99S, where the culvert runs under the highway, under a housing complex and the culvert outlet is on South Stage Road (see Figure 4). The culvert conveys the unnamed tributary to Bear Creek under OR99S, takes an unknown path under a housing complex and several residential roads and outlets onto South Stage Road. The exact path of the culvert is not known and is at least 700' long. ODFW believes the culvert is a complete fish passage barrier. Only coastal cutthroat trout have been observed above the culvert. The total length of the culvert and the path under the mobile home park is not known. It is apparent that several types of culverts have been connected over time. The culvert inlet is shown in Photo 2 and the culvert outlet in Photo 3.

Below the culvert outlet, the unnamed tributary to Bear Creek is channelized along a bike path/walkway for just under 900 feet, crosses through a culvert under the bike path and continues through county property to the north where it enters Bear Creek. Above OR 99S, the unnamed tributary extends approximately 1.75 miles upstream through residential and agricultural lands. For this waiver request, and based on current conditions, a distance of 545 feet (0.10 miles) to the next barrier at a railroad culvert will be used for this net benefit analysis. By proposing to not provide ODFW fish passage criteria at this location, this NMF habitat will continue to be blocked to passage and needs to be mitigated. Table 1 shows the benefits to NMF that would occur if fish passage were provided.

Table 1. Summary of benefits that would result from providing ODFW design criteria fish passage at the OR99S/South Stage Road culvert.

NMF SPECIES	TOTAL MILES OPENED	PRIMARY BENEFIT
CUTTHROAT TROUT	0.10	SPAWNING AND REARING
STEELHEAD TROUT	0.10	REARING AND HIGH FLOW REFUGIA

Not providing ODFW criteria passage at this location will continue to exclude NMF from 0.1 miles of habitat. For ODFW to approve this waiver application, ODOT needs to provide mitigation that will result in a NMF net benefit greater than if passage were provided at the waiver location. This document represents

ODFW's assessment of ODOT's proposed mitigation actions and if these actions will provide a greater benefit to NMF. The mitigation actions and ODFW's analysis are described below.

Mitigation Sites

ODOT is proposing mitigation at two locations near the waiver site to offset the lack of providing passage at the culvert on the unnamed tributary. ODOT proposes to replace a culvert on a bike/pedestrian path at Blue Heron Park with a new culvert structure that meets the state's fish passage design criteria. The second mitigation action proposes to complete habitat restoration on the Unnamed Tributary to Bear Creek (below the waiver site) and below the bike path culvert and the confluence of Bear Creek (see Figure 1 and Figure 5). The intent of these habitat restoration actions are to improve habitat conditions within the unnamed tributary to specifically benefit NMF.

Mitigation Site 1

The existing culvert under the bike path in Blue Heron Park conveys a small unnamed tributary (referred to in this document as Blue Heron Creek) to Bear Creek. This tributary provides high-quality habitat for coastal cutthroat trout, summer and winter steelhead, fall Chinook, Coho, Pacific lamprey and Klamath small-scale suckers. The culvert was damaged in the 2020 Alameda fire and is a barrier to juveniles at some flows (see Photo 8). This tributary is spring fed where water temperatures remain consistent year-round which provides thermal refugia for NMF in summer and relatively warm, rich in benthic macroinvertebrates during the winter. There is approximately 210 feet to the end of the creek where the spring emerges. This site is in an area of Bear Creek that is referred to as the "miracle mile". The miracle mile has been identified as important reach in Bear Creek that needs protection and restoration to assist the juvenile rearing phase of NMF in the Bear Creek basin. Numerous springs and seeps contribute to water temperatures that are used by NMF and are especially important to salmonid temperature and high flow refugia. The miracle mile roughly extends from Lithia Sports Park and Lynn Newberry Park (see Figure 6). Streambed substrate in the Blue Heron Creek consists of fines, gravels and some cobbles. Riparian trees in this area are a mix of living trees and trees that were burnt in the Alameda Fire. See Photos 9-12 for examples of the habitat in Blue Heron Creek. Table 2 describes the benefits of providing passage at the existing culvert on Blue Heron Creek. This culvert has been rated as Category 1 barrier as described in the Oregon Department of Fish and Wildlife 2025 Statewide Fish Passage Barrier Priority List Methods

Document¹. Category 1 barrier is defined as a barrier to some NMF juveniles and/or for only part of the migration period. This will allow for 20% of the distance above the culvert to be applied to mitigation (0.008 miles). This action would reduce the amount of necessary mitigation by 0.008 miles from the 0.10 miles of mitigation needed on a distance metric. This mitigation component is beneficial given the habitat quality is greater than the habitat quality of the OR99s trigger site that is presently partially blocked.

Table 2. Summary of benefits of providing ODFW criteria fish passage at Blue Heron Creek.

<u>SPECIES</u>	<u>PRIMARY BENEFITS</u>
CUTTHROAT TROUT	SPAWNING AND REARING
SUMMER STEELHEAD	REARING
WINTER STEELHEAD	REARING
FALL CHINOOK	REARING
COHO	REARING
PACIFIC LAMPREY	SPAWNING AND REARING
KLAMATH SMALL SCALE SUCKER	REARING

Mitigation Site 2

ODOT additionally proposes habitat restoration actions in the unnamed tributary to Bear Creek and within and below the same unnamed tributary where the waive site is located and below the bike path (see Figure 1 and Figure 7). The proposed mitigation actions will occur between the culvert underneath the bike path and the confluence with Bear Creek, covering approximately 1,066 feet of the unnamed tributary to Bear Creek. ODOT is proposing to regrade and recontour the channel, add large woody material and install riparian plantings which will result in three different restoration actions on three defined reaches (see Figure 7) within the unnamed tributary. Regrading is necessary as there are some areas within the restoration area that do not have clear connections with other sections of the channel, potentially causing some passage issues when the banks are not flooding. Defining the channel through regrading will allow for volitional passage through the area at all flows. Reach 1 is approximately 203 feet in length and is overgrown with grass. ODOT proposes to regrade the channel and remove the non-native grass and install willow plantings as well as add large woody material every 50-75 feet. Reach 2 is approximately 220 feet and ODOT proposes to install large woody debris in channel every 50-75 feet. The riparian vegetation is intact in this reach. Reach 3 is approximately 643 feet and extends to the confluence with Bear Creek.

¹<https://www.dfw.state.or.us/fish/passage/docs/inventories/2025%20Fish%20Passage%20Priority%20List%20Methods.pdf>

Restoration in Reach 3 includes planting riparian vegetation with willows, regrading the main channel and removing grass and adding large woody debris every 50-75 feet. Restoration activities all three reaches will improve riparian vegetation, increase the number of pools and improve fish passage below the culvert at the bike path providing improved temperature refugia, high flow refugia and improved rearing habitat. This reach is also within the miracle mile described above.

Species that will use the improved habitat along this section of the unnamed tributary to Bear Creek include cutthroat, summer and winter steelhead, fall Chinook, Coho, Pacific lamprey and Klamath smallscale sucker. The active channel width between the bike path culvert and the confluence with Bear Creek varies widely but is typically between 4 and 6 feet. Streambed substrate through this reach includes fines, gravels and cobbles. Photos of the habitat in the habitat restoration area are shown in Photos 13-17.

Net Benefit Analysis and Determination

As described above, the mitigation actions proposed by ODOT include the replacement of a damaged culvert on Blue Heron Creek with a culvert that meets the state's fish passage design criteria and habitat restoration activities on the lower 1,066 feet of the unnamed tributary to Bear Creek. Habitat restoration activities include:

- Placing large woody debris in 14 to 21 locations within the restoration reach (*these locations will be determined in coordination with ODFW District staff*),
- Removing non-native grasses from the channel,
- Willow plantings in the riparian area,
- Regrading the channel, and
- Increasing hyporheic exchange.

There is not an extensive amount of habitat above the Blue Heron culvert (approximately 220 feet), but this habitat is important rearing NMF habitat given the cold water emerging from the spring. This creek is within the "miracle mile" which provides cold water refugia during times when stream temperatures in Bear Creek are warmer. Blue Heron Creek also produces significant quantities of macroinvertebrates during winter, which contributes to high-quality forage for juvenile salmonids. The habitat also can provide high flow refugia when flows are high in Bear Creek. Cold water refugia increases the over-summer survival of native migratory fish, especially cold-water species such as Pacific salmonids.

The habitat restoration work is designed to increase the amount of available habitat and to increase habitat complexity. Several peer-reviewed papers have documented that carefully designed habitat improvement projects can increase fish density (See Appendix A for References). These papers describe that correctly placed habitat restoration activities can increase production by creating habitat complexity and suitable conditions for increased survivability of juvenile rearing salmonids. ODFW will consider the application of large woody debris and channel regrading when approving the fish passage application for the restoration area.

Common approaches for fish passage mitigation typically show a clear benefit to not providing fish passage at the fish passage trigger site. ODOT's mitigation action(s) proposes a combination of improving passage at the Blue Heron Creek site in conjunction with habitat restoration activities. There is 0.10 miles of habitat above the OR99S/South Stage Road culvert (waiver site). The Blue Heron Creek (mitigation site) will improve habitat to 0.039 miles. The culvert is a Category 1 barrier as described in the methods used to develop the ODFW Statewide Priority List which applied to this mitigation action would result in 0.008 miles of credit. ODFW considers the benefits provided by installing an ODFW fish passage criteria compliant culvert greater than the linear distance at this location given the spring water that provides cold water refuge and increased forage opportunities. The mitigation actions proposed by ODOT will provide a net benefit to NMF compared to providing criteria compliant passage at the OR99S waiver site. The quality of the habitat above the OR99S culvert is marginal. The quality of habitat on Blue Heron Creek will provide cold water and high flow refugia, increased invertebrate forage for NMF and increase survivability of juvenile native fish in the Bear Creek basin, which is known to have water temperature issues. The habitat quality on the unnamed tributary below the bike path is significantly better than the habitat quality above OR99s on the same waterway. The proposal to add large woody debris and remove invasive grasses within the channel will greatly improve the habitat conditions in this reach and will provide improved cold water and high flow refugia, increased habitat complexity and improve invertebrate food sources in this stream section, which will increase NMF species survivability and improved health conditions and body size for salmonids prior to their migration out of the basin.

Based on this information, ODFW concludes these mitigation actions will create a net benefit to NMF greater than providing ODFW criteria fish passage at the OR99s culvert and to a larger number of NMF species. ODFW Rogue District supports the proposed mitigation as a net benefit to providing habitat at the OR99S/South Stage Road culvert and recommends the approval of the ODOT fish passage waiver request.

Monitoring and Reporting

As part of the fish passage waiver agreement, ODFW will require the following pre-and-post-project provisions and conditions to ensure a net benefit is achieved. These include:

- Fish monitoring shall be completed prior to the project within the proposed mitigation reach on either fish density or a physical habitat survey (the number of pools per mile, pool depths, or another metric agreed to by ODFW).
- Post treatment fish monitoring should be repeated with the same protocol as the pre-treatment surveys to show that fish densities are higher, or physical habitat has been improved to evaluate effectiveness on years 1, 3 and 5.

Conclusion and Recommendation

ODFW concludes that the proposed mitigation actions in lieu of providing passage at the wavier site will create a net benefit to NMF. As discussed in the analysis, mitigation actions occur in a stream reach that is important to the survivability of NMF by providing increased forage, reducing water temperature and improved high flow refugia habitat access during higher stream flows. The habitat improvements on the unnamed tributary to Bear Creek will improve existing habitat quality and conditions by increasing habitat complexity, installing large woody debris and removing non-native grasses. Installing an ODFW design criteria compliant fish passage culvert at Blue Heron Creek will improve access to 210' of high-quality habitat up to the spring where the cold water emerges.

ODFW Rogue Watershed District fisheries staff recommends the approval of the ODOT proposed mitigation waiver request and concludes a net benefit will be provided through the implementation of the mitigation actions described in the Net Benefit Analysis.

Appendix A

Figures

Figure 1. Trigger site and mitigation locations. The red line is the approximate location of habitat improvements on the Unnamed Tributary to Bear Creek.

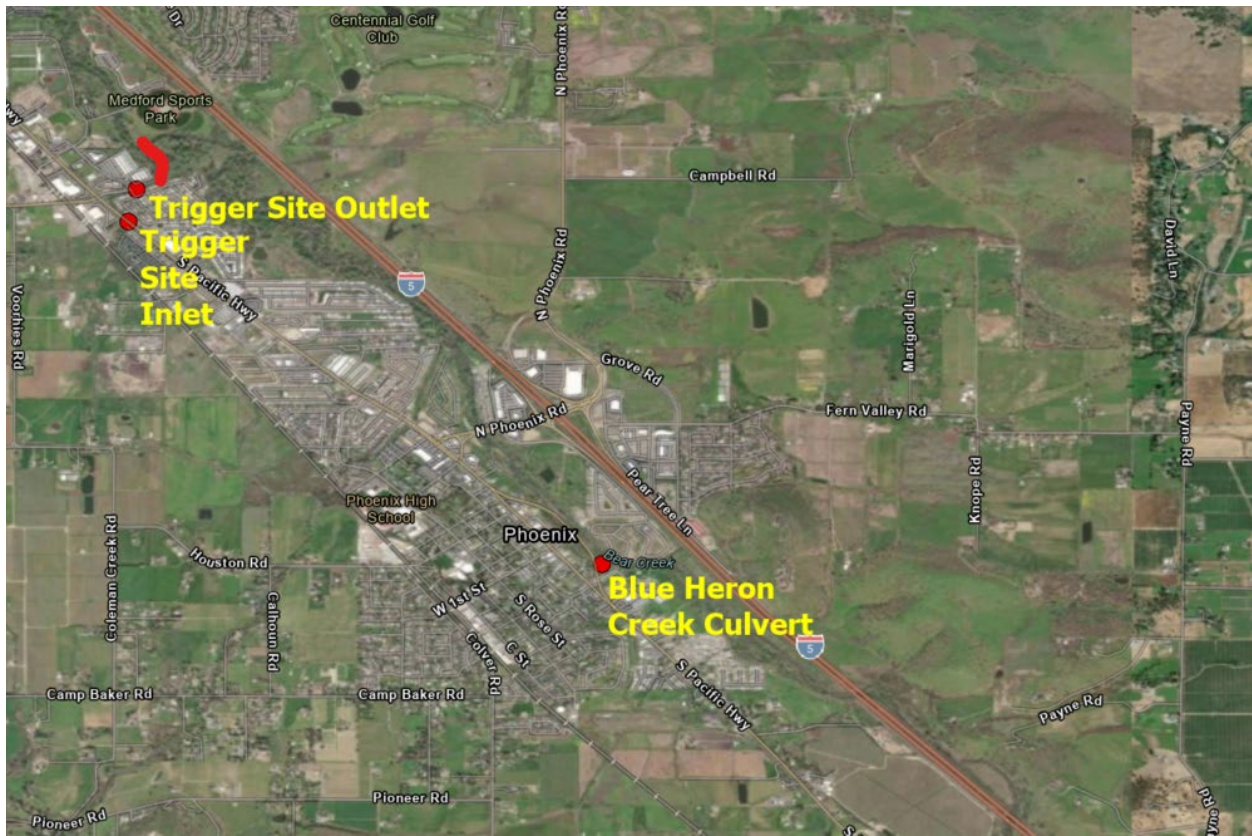


Figure 2. ODOT Glenwood to Coleman Creek project location provided by the Oregon Department of Transportation.

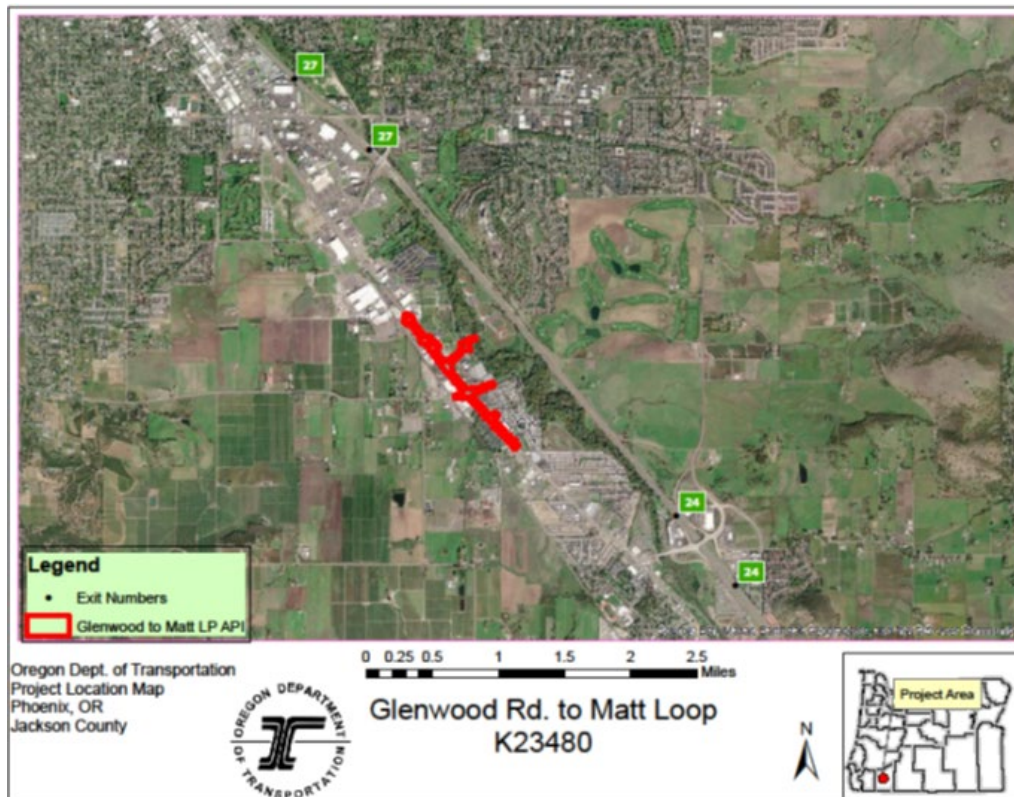


Figure 3. The entire extent of the Unnamed Tributary is the waterway in bold blue. Figure 1 shows the location of this creek in relation to the trigger site and mitigation locations.

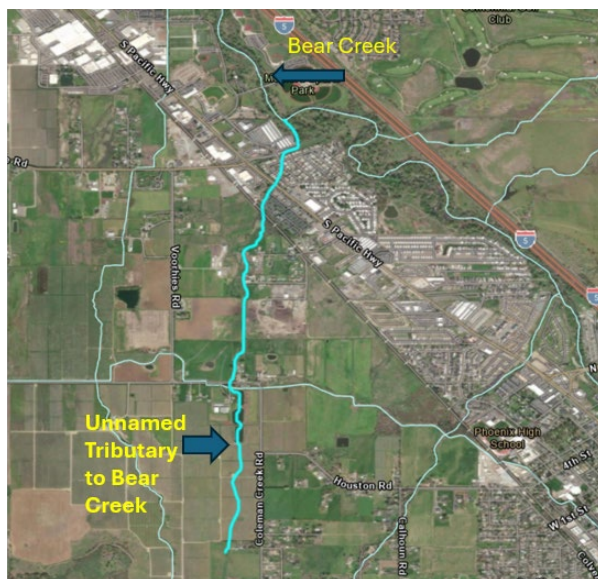


Figure 4. OR99S Culvert location. The culvert conveys the Unnamed Tributary to Bear Creek under a housing complex.



Figure 5. Culvert location on Unnamed Tributary (Blue Heron Creek) to Bear Creek in Blue Heron Park



Figure 6. Approximate location of the “miracle mile”.

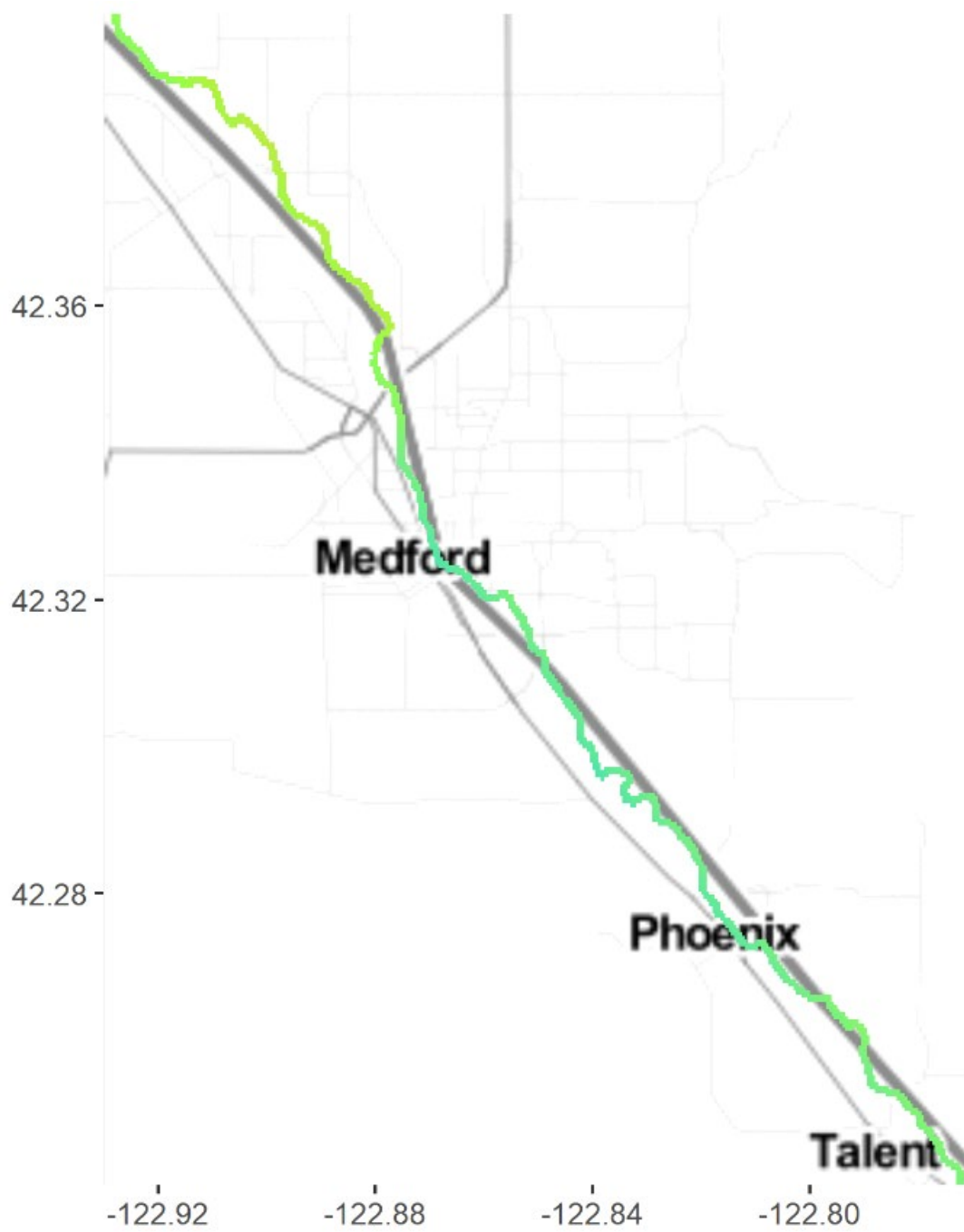
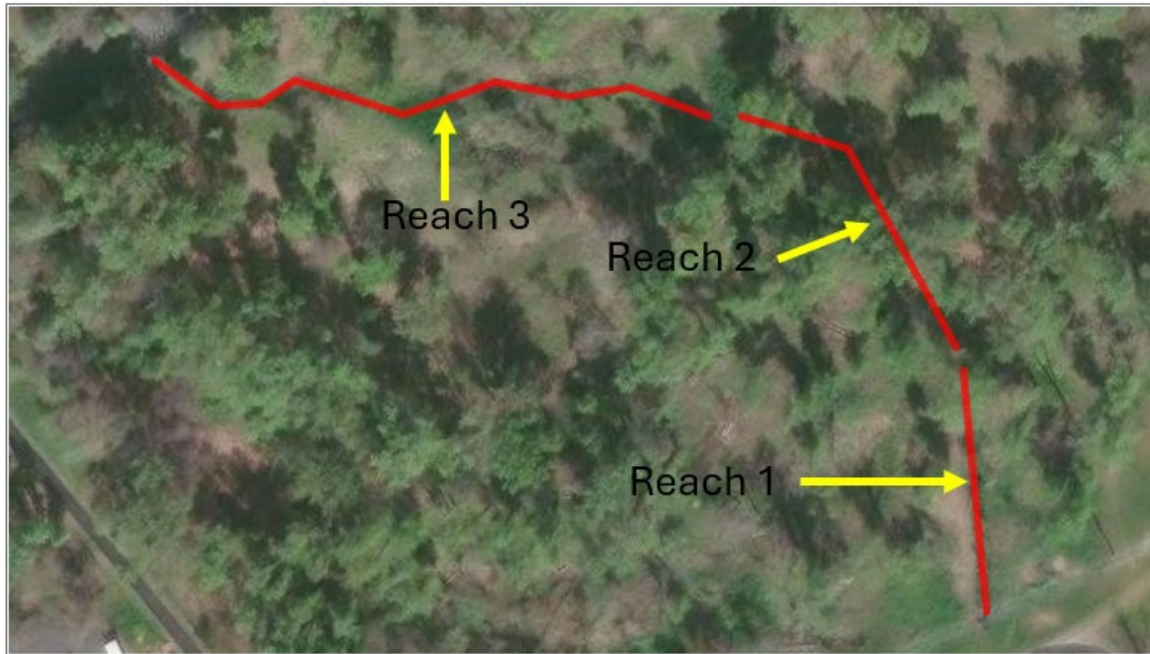


Figure 7. Location of habitat restoration on the Unnamed Tributary to Bear Creek. ODOT has described three reaches for specific restoration actions based on stream restoration needs in each reach.



Photos

Photo 1. Juvenile steelhead observed below the culvert at South Stage Road



Photo 2. OR99S culvert inlet



Photo 3. OR99S culvert outlet on South Stage Road



Photo 4 and 5. The Unnamed Tributary to Bear Creek Upstream of OR99S.



Photo 6. The Unnamed Tributary to Bear Creek below South Stage as it runs along the bike path.



Photo 7. The Unnamed Tributary of Bear Creek culvert underneath the bike path.



Photo 8. The culvert under the bike path at Blue Heron Park.



Photo 9. Example of Blue Heron Creek habitat.



Photo 10. The confluence of Blue Heron Creek into Bear Creek.



Photo 11. Example of habitat on Blue Heron Creek.



Photo 12. The spring at the upstream end of Blue Heron Creek.



Photo 13. Looking downstream at the bike path culvert on the Unnamed Tributary to Bear Creek.



Photo 14. Habitat in the Unnamed Tributary to Bear Creek below the bike path Culvert.



Photo 15. Habitat in the Unnamed Tributary to Bear Creek below the bike path Culvert.



Photo 16. Habitat in the Unnamed Tributary to Bear Creek below the bike path Culvert.



Photo 17. The Unnamed Tributary to Bear Creek confluence with Bear Creek.



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