# 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:** Cash Chesselet **TITLE:** Biologist
**ADDRESS:** 4040 Fairview Industrial Dr SE
**CITY:** Salem **STATE:** OR **ZIP:** 97302
**PHONE:** 503-986-3707
**FAX:** 503-986-3249
**E-MAIL ADDRESS:** cash.chesselet@odot.state.or.us

**SIGNATURE:** Cash Chesselet _____ **DATE:** 7/10/2017

**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:** _____

*To Be Completed by ODFW Fish Passage Coordinator*

**APPLICATION #:** **DATE RECEIVED:**

**FILE NAME:**

**APPROVED** ☐ **SIGNATURE:** _____ **DATE:** _____

**DENIED** ☐ **TITLE:**

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

**1. TYPE OF ARTIFICIAL OBSTRUCTION:**

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

New ☐ Existing ☒

**2. PLEASE PROVIDE A BACKGROUND AND DESCRIPTION OF THE PROPOSED ACTION TRIGGERING THE NEED TO ADDRESS FISH PASSAGE:** The existing 7' x 9' concrete culvert is in critical condition with damaged inlet and outlet wing walls, a heavily abraded concrete floor, and numerous large voids underneath the culvert that have significant water flow through them. The proposed project includes rehabilitation of the existing culvert and extending the culvert upstream by approximately 40 feet. The purpose of the extension is to allow for an access road to be built for maintenance crews to remove boulders and other debris that builds up at the culvert inlet. Debris fins will be installed at the culvert inlet to catch large boulders that could potentially block the culvert while still allowing medium sized and smaller boulders to flow through the culvert.

**3. PASSAGE WILL NOT BE PROVIDED FOR THE FOLLOWING REASON(S):** Upstream passage has been blocked since the construction of Highway 22. To provide a structure that meets fish passage criteria would cost in excess of 7 million dollars and would result in significant delays for the public as well as commercial traffic. While Bad Banks is a large drainage system, it is very steep and the majority of the stream is inaccessible for native migratory fish. The area accessible to native migratory fish upstream of OR22 is just over a ¼ mile of habitat with an average active channel width of 17ft. There is a series of waterfalls with drops exceeding 15 ft that limits upstream passage of native migratory fish.

**4. DATE THE TRIGGER ACTION IS SCHEDULED TO BEGIN** *(a minimum of two months should be planned for the waiver process after ODFW receives your application; requests that must go before the Commission will take longer)***:** The work will occur during the established in water work window of July 15- August 31. The year the work occurs is still unknown but would likely be 2019 or 2020.

**5. LOCATION**

| | | |
|---|---|---|
| **COUNTY:** | Marion | |
| **ROAD CROSSING** (if applicable)**:** | Highway 22 | |
| **RIVER/STREAM:** | Bad Banks Creek | |
| **TRIBUTARY OF:** | North Santiam | |
| **BASIN:** | Santiam | |
| **COORDINATES**[a]**:** | Longitude: -122.344054°W | Latitude: 44.758416°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 | |
| Type | | | | | C | | | | |
| Length | | | | | 230ft | | | | |
| Distance | | 520ft | | | | | | 1375ft | |
| Level | | | | | 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 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 end of historic native migratory fish use upstream is a series of falls culminating with a 15ft vertical falls that limits the upstream passage of all fish. The falls are close enough together that adequate jump height cannot be obtained due to lack of pools. The North Santiam is located 520ft downstream of the culvert.

**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, steelhead | Cutthroat |
| NMF Species Present Historically | Cutthroat, steelhead | Cutthroat, steelhead |
| Habitat Quality | Fair | Fair |
| Flows | Good | Good |
| Water Quality | Good | Good |
| Water Right Availability | Unknown | Unknown |
| Land Use/Zoning | County and state land | Mixture of public and industrial forestlands |

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*)**:** Upper Willamette River Steelhead are currently found downstream of the Bad Banks culvert and likely were found upstream prior to culvert construction, even with the high gradient and large boulder substrate.

**6C. PROVIDE THE SOURCE FOR INFORMATION CONTAINED IN THE BARRIER AND SUMMARY TABLES:** Barrier data obtained from existing ODFW GIS Data and field visits by ODOT staff with ODFW staff present.

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

**1. DESCRIBE THE MITIGATION TO BE PROVIDED:** ODOT will pay to replace an undersized culvert located on Little Rock Creek, a tributary to the North Santiam River approximately 2.8 miles downstream from the Bad Banks Creek confluence with the North Santiam. This culvert is approximately 0.24 River Miles upstream from the confluence of Mad Creek, a tributary that flows directly into the North Santiam near Gates, OR. The number of winter steelhead spawning in the Mad Creek system, designated as Essential Salmonid Habitat, has been on a steady decline for the past 25 years according to the North Santiam Watershed Council. This project will replace an undersized culvert with a bridge designed to pass 100-year flood flows with about 5 feet of extra height to accommodate large wood passage. The project will involve: 1) constructing a new bridge, 2) removing the existing culvert and associated fill, and 3) stabilizing the banks immediately upstream and downstream of the bridge with large rocks, soil, willows and native vegetation. The project will restore juvenile and adult salmon and steelhead passage in the reach, open up over 1.25 miles of high quality salmonid habitat, reconnect the stream with its floodplain, reduce the build-up of materials upstream from the crossing, and allow for sediment transport from the Mad Creek sub-basin to the Middle Reach North Santiam. The mitigation work will be closely coordinated with the North Santiam Watershed Council who has been extremely helpful in locating this mitigation option and providing background data for ODOT to use.

**2. DISTANCE BETWEEN MITIGATION SITE(S) AND ARTIFICIAL OBSTRUCTION:** 2.6 miles

**3. OWNER** (*if different than Applicant*)**:** Linn County Road Deparment
**CONTACT:** Chuck Knoll, PE **TITLE:** Linn County Engineer
**ADDRESS:** 3010 Ferry Street SW
**CITY:** Albany **STATE:** OR **ZIP:** 97322
**PHONE:** 541-967-3919
**FAX:** 541-924-0202
**E-MAIL ADDRESS:** cknoll@co.linn.or.us

**4. DATE THE MITIGATION IS SCHEDULED TO BE COMPLETED:** Summer 2018 or 2019

**5. LOCATION**
**COUNTY:** Linn
**ROAD CROSSING** (if applicable)**:** Morrison Road
**RIVER/STREAM:** Little Rock Creek
**TRIBUTARY OF:** Mad Creek
**BASIN:** North Santiam
**COORDINATES**[a]**:** Longitude: -122.394337°W Latitude: 44.743828°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 | | | | | C | C | | | D |
| Length | | | | | 80 | 50ft | | | 8 ft |
| Distance | | 1200ft | | | | 5,150ft | | 6,950ft | 1,700 ft |
| Level | | | | | 4 | 3 | | | 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 proposed mitigation is located 1200ft upstream of the confluence of Mad Creek. The site currently has a 7ft perched culvert for a road crossing. This will be removed and a new bridge will be designed that spans 1.5x the active channel width to meet or exceed current NMFS and ODFW criteria. This will allow all life stages of native migratory fish to pass during all flow regimes. Resident and anadromous fish will have access to over 1.25 miles of habitat. Large boulders with woody debris will be placed on both sides of the bank extending upstream and downstream of the bridge crossing. The purpose is to stabilize the stream that will be excavated out back to its original natural shape before the culvert is removed to eliminate the potential for erosion of the bank, and also provide riparian habitat. Traditional rip rap will not be used rather large boulders will be placed along the stream bed and a combination of large rocks and soil will be provided up to the 100 year storm event. Willows or other native vegetation will be planted within the rock armor. This design provides a riparian restoration as well as a bank stabilization of the project site. The stream has an active channel width of 16 ft based on measurements outside of the influence of the existing culvert crossing.

**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, Steelhead, cutthroat | Steelhead, Cutthroat |
| NMF Species Present Historically | Spring Chinook, Steelhead, cutthroat | Steelhead, Cutthroat |
| Habitat Quality | Good | Good |
| Flows | Good | Good |
| Water Quality | Good | Good |
| Water Right Availability | Unknown | Unknown |
| Land Use/Zoning | Private Timber and Farmland | Public Forestlands |
| 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*)**:** Upper Willamette River Spring Chinook and Upper Willamette Winter Steelhead

**6C. PROVIDE THE SOURCE FOR INFORMATION CONTAINED IN THE BARRIER AND SUMMARY TABLES:** Barrier data obtained from existing ODFW GIS Data and field visits by ODOT staff with ODFW staff present. Also, the North Santiam Watershed Council was consulted regarding this watershed.

**7. DESCRIBE HOW THE MITIGATION RELATES TO ANY EXISTING FISH MANAGEMENT PLANS, INCLUDING THE OREGON PLAN:** The mitigation action carries out the Oregon Plan goals for state and federal agencies to pursue salmon recovery and watershed enhancement.

**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)*: Area upstream is primarily Santiam State Forest lands with strict requirements on timber management practices.

**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:** Unknown, existing culvert is still in reasonably good shape and the county has no plans of replacing it at this time.

**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)*: ODOT will fund Linn County to engineer and replace the existing culvert with a bridge meeting current ODFW & NMFS criteria for fish passage.

**12. DESCRIBE HOW THE MITIGATION WILL BE EVALUATED, MONITORED, AND MAINTAINED:** Mitigation will likely be permitted using Standard Local Operating Procedures for Endangered Species (SLOPES V). Monitoring the site for a minimum of five years or until performance criteria are met will be a condition of the SLOPES permit. If the Federal Aid Highway Programmatic (FAHP) is used, similar criteria will be required as well.

## 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 greg.d.apke@state.or.us and send one signed original paper copy of the application to the ODFW Fish Passage Coordinator at 4034 Fairview Industrial Dr. SE, Salem, OR 97302.**