

## **SEPA ENVIRONMENTAL CHECKLIST**

### ***Purpose of checklist:***

Governmental agencies use this checklist to help determine whether the environmental impacts of your proposal are significant. This information is also helpful to determine if available avoidance, minimization or compensatory mitigation measures will address the probable significant impacts or if an environmental impact statement will be prepared to further analyze the proposal.

### ***Instructions for applicants:***

This environmental checklist asks you to describe some basic information about your proposal. Please answer each question accurately and carefully, to the best of your knowledge. You may need to consult with an agency specialist or private consultant for some questions. You may use "not applicable" or "does not apply" only when you can explain why it does not apply and not when the answer is unknown. You may also attach or incorporate by reference additional studies reports. Complete and accurate answers to these questions often avoid delays with the SEPA process as well as later in the decision-making process.

The checklist questions apply to all parts of your proposal, even if you plan to do them over a period of time or on different parcels of land. Attach any additional information that will help describe your proposal or its environmental effects. The agency to which you submit this checklist may ask you to explain your answers or provide additional information reasonably related to determining if there may be significant adverse impact.

### ***Instructions for Lead Agencies:***

Additional information may be necessary to evaluate the existing environment, all interrelated aspects of the proposal and an analysis of adverse impacts. The checklist is considered the first but not necessarily the only source of information needed to make an adequate threshold determination. Once a threshold determination is made, the lead agency is responsible for the completeness and accuracy of the checklist and other supporting documents.

### ***Use of checklist for nonproject proposals:***

Please complete all questions that apply and note that the words "project," "applicant," and "property or site" should be read as "proposal," "proponent," and "affected geographic area," respectively. ADDITION, complete the [SUPPLEMENTAL SHEET FOR NONPROJECT ACTIONS \(part D\)](#). For nonproject actions.

### **A. BACKGROUND**

1. Name of proposed project, if applicable:

**Sol Duc Fish Hatchery Fish Barrier and Culvert Replacement**

2. Name of applicant:

**Washington Department of Fish and Wildlife**

3. Address and phone number of applicant and contact person:

**600 Capitol Way N, Olympia, WA / (360) 902-8376 / Larry Peck**

4. Date checklist prepared:

**05/12/14**

5. Agency requesting checklist:

**Washington Department of Fish and Wildlife**

6. Proposed timing or schedule (including phasing, if applicable):  
**Project work proposed to begin and be completed this summer 2014.**

7. Do you have any plans for future additions, expansion, or further activity related to or connected with this proposal? If yes, explain.

**The project is proposed to be coordinated with the redevelopment and construction of a new adult fish trapping facility that was permitted in 2013. No new expansions or additional work has been planned for at this site.**

8. List any environmental information you know about that has been prepared, or will be prepared, directly related to this proposal.

**Joint Aquatic Resource Permit Application (for two agencies)  
Biological Assessment**

9. Do you know whether applications are pending for governmental approvals of other proposals directly affecting the property covered by your proposal? If yes, explain.

**None**

10. List any government approvals or permits that will be needed for your proposal, if known.

**Federal  
Section 404 Permit (Clean Water Act - Corps)  
Magnuson–Stevens Fishery Conservation and Management Act**

**State  
Hydraulic Project Approval (WDFW)**

11. Give brief, complete description of your proposal, including the proposed uses and the size of the project and site. There are several questions later in this checklist that ask you to describe certain aspects of your proposal. You do not need to repeat those answers on this page. (Lead agencies may modify this form to include additional specific information on project description.)

**The Sol Duc Hatchery has been in continuous operation as a fish hatchery for approximately 50 years. The proposed project includes removing three fish passage barriers at the Sol Duc Hatchery. The structures are on an unnamed tributary to the Sol Duc River. Currently at the hatchery there are two barrier culverts sites 982713 and 982714 (see map). Both culverts are undersized presenting velocity barriers to fish. Downstream of the culverts there is an earth fill dam (site 982747) that is a complete blockage to fish passage. The earth fill dam spans approximately 15 yards and is approximately 5 feet high and forms a plastic lined pond with a standpipe and stop logs to control pond depth. The stream flows through an 18 inch corrugated steel pipe through the dam before returning to the stream channel downstream. The proposed project is to replace the two under sized culverts with stream simulation culverts, 8.25 ft span X 5.75 ft rise, the upper culvert is a 55 foot arc long pipe and the lower culvert is 45 foot arc long pipe. Both arc culverts will be filled approximately 2 feet with 3 inch minus material. The earthen dam will be removed and replaced with a channel trapezoidal in form with a two foot bottom, 1-1/2:1 side slopes and a profile slope of 5%. Please see drawings for more details. There is a head cut approximately downstream of the dam that has been moving upstream for many years, the channel will be reconstructed over a length of 170 feet and will include resloping of the head cut.**

12. Location of the proposal. Give sufficient information for a person to understand the precise location of your proposed project, including a street address, if any, and section, township, and range, "and county" if known. If a proposal would occur over a range of area, provide the range or boundaries of the site(s). Provide a legal description, site plan, vicinity map, and topographic map, if reasonably available.

While you should submit any plans required by the agency, you are not required to duplicate maps or detailed plans submitted with any permit applications related to this checklist.

**The Sol Duc Hatchery street address is: 1423 Pavel Road, Beaver, WA. 98305. The hatchery is in Clallam County and is located in Township 30N Range 13 W Section 36. A vicinity map is on page one.**

## **B. ENVIRONMENTAL ELEMENTS**

### **1. Earth**

a. General description of the site

(circle one): Flat, rolling, hilly, steep slopes, mountainous,

other: **The project area is generally flat as the lands supporting the hatchery follow the slope of the Sol Duc River.**

b. What is the steepest slope on the site (approximate percent slope)?

**The project area steep slopes are about 30% at their steepest locations.**

c. What general types of soils are found on the site (for example, clay, sand, gravel, peat, muck)? If you know the classification of agricultural soils, specify them and note any prime farmland.

**The area proposed for redevelopment on this property is primarily “Queets Silt Loam” per the Natural Resources Conservation service (NRCS) data.**

d. Are there surface indications or history of unstable soils in the immediate vicinity? If so, describe.

*None.*

e. Describe the purpose, type, and approximate quantities of any filling or grading proposed. Indicate source of fill.

**The purpose of the project is to remove all existing fish passage barriers in stream 1 located at WDFW’s Sol Duc Hatchery. The project will result in opening over 430 linear feet of habitat currently not accessible to anadromous fish. The overall project will result in an overall cut of 35 CY. All fill be cleaned material and sourced locally.**

f. Could erosion occur as a result of clearing, construction, or use? If so, generally describe.

**Yes. The excavation and grading activities during construction will disturb soils and disturb the stream bed vegetation, though this will be minimized. Post-construction erosion will be minimal as the site re-developed near water and disturbed areas will be stabilized with re-vegetated restoration planned for.**

g. About what percent of the site will be covered with impervious surfaces after project construction (for example, asphalt or buildings)?

**The proposed project will not result in a net change in new impervious surfaces.**

h. Proposed measures to reduce or control erosion, or other impacts to the earth, if any:

**Construction will occur primarily during the summer months when precipitation is lower. Construction BMPs will be in-place to minimize the erosion potential and to protect the unnamed tributary and the Sol Duc River. Sediment control measures, such as silt fencing,**

**straw bales, and covering fill materials will be in place. Stockpiled materials will be stored away from all water bodies and all stormwater drainages. Materials will be covered, as appropriate, to minimize erosion. Land clearing will be kept to the minimum necessary to complete the project. Exposed soils will be vegetated post-construction.**

## **2. Air**

- a. What types of emissions to the air would result from the proposal (i.e., dust, automobile, odors, industrial wood smoke) during construction and when the project is completed? If any, generally describe and give approximate quantities if known.

**Emissions will occur from construction equipment operation. No post-construction emissions will occur other than those already present in the form of periodic use of a generator.**

- b. Are there any off-site sources of emissions or odor that may affect your proposal? If so, generally describe.

**No**

- c. Proposed measures to reduce or control emissions or other impacts to air, if any:

**Standard emission control converters and mufflers would be in use by construction vehicles.**

## **3. Water**

- a. Surface Water:

- 1) Is there any surface water body on or in the immediate vicinity of the site (including year-round and seasonal streams, saltwater, lakes, ponds, wetlands)? If yes, describe type and provide names. If appropriate, state what stream or river it flows into.

**The project will occur within and adjacent to an unnamed stream, a tributary to the Sol Duc River. The project is adjacent to the Sol Duc River and Pavel Springs Creek. All proposed work is within the established hatchery foot print.**

- 2) Will the project require any work over, in, or adjacent to (within 200 feet) the described waters? If yes, please describe and attach available plans.

**Yes. Essentially all proposed work occurs immediately within or adjacent to the unnamed tributary. Culvert replacement is located in streambed as well as the existing earthen dam. The lower re-channelization of stream will be within 200 feet of the Sol Duc River. Please see attached site plans.**

- 3) Estimate the amount of fill and dredge material that would be placed in or removed from surface water or wetlands and indicate the area of the site that would be affected. Indicate the source of fill material.

**Replacing the two existing under sized culverts (sites 982713 and 982714) with two larger stream simulated arched culvert pipes, removing the earthen dam wall (site 982749), and reshaping and resloping the stream channel will result in a net cut of 35 CY. Please see figure 1 for site locations and sheet 4 permit drawings for detailed cut and fill table.**

**On-site excavated materials will be reused to the extent possible; primarily gravel and rock material. Import of new, clean, fill material will be sourced locally.**

- 4) Will the proposal require surface water withdrawals or diversions? Give general description, purpose, and approximate quantities if known.

**The proposal will require short term water diversions to facilitate construction activities, once construction is completed not surface water withdrawals or diversions will result from this project.**

5) Does the proposal lie within a 100-year floodplain? If so, note location on the site plan.

**No, however the lower end of the re-channelization portion of the project is located just above the 100 year floodplain. WDFW utilized FEMA and County Critical Area Maps for this determination.**

6) Does the proposal involve any discharges of waste materials to surface waters? If so, describe the type of waste and anticipated volume of discharge.

**No new discharges are planned.**

b. Ground Water:

1) Will ground water be withdrawn, or will water be discharged to ground water? Give general description, purpose, and approximate quantities if known.

**No.**

2) Describe waste material that will be discharged into the ground from septic tanks or other sources, if any (for example: Domestic sewage; industrial, containing the following chemicals. . . ; agricultural; etc.). Describe the general size of the system, the number of such systems, the number of houses to be served (if applicable), or the number of animals or humans the system(s) are expected to serve.

**NONE.**

c. Water runoff (including stormwater):

1) Describe the source of runoff (including storm water) and method of collection and disposal, if any (include quantities, if known). Where will this water flow?

Will this water flow into other waters? If so, describe.

**Site planning has been accomplished to avoid the need for any stormwater treatment facilities once the project is constructed.**

**Rain water that enters the construction site, including water pumped from dewatering cofferdam areas, will be isolated until sediments have settled, and then discharged to the Creek. Post-construction adverse impacts are not anticipated from stormwater.**

2) Could waste materials enter ground or surface waters? If so, generally describe.

**The possibility of waste materials entering ground or surface waters is very low given the full range of best management practices planned for construction.**

d. Proposed measures to reduce or control surface, ground, and runoff water impacts, if any:

**Temporary erosion and sediment control measures will be used during construction as described in the site plans. All work is being planned to occur during the appropriate fish windows during very low flows in the unnamed tributary stream. Staging and refueling will be conducted out of the OHWM with non-toxic lubricants. During project demolition and construction, a turbidity curtain will be installed, additional siltation prevention BMPs include filter fabric and hay bales. Construction traffic will be limited; any disturbed areas above OHW will be replanted with native plants. Please see attached drawings for more detail. All**

**erosion and sedimentation control devices shall be installed prior to the first stage of construction and hand removed at the completion of the project.**

#### **4. Plants**

- a. Check or circle types of vegetation found on the site:

deciduous tree: **alder, maple**, aspen, other: **willow, cottonwood**  
 evergreen tree: **fir, cedar**, pine, other  
 shrubs: **willow, blackberry, salmonberry, snowberry**  
 grass  
 pasture  
 crop or grain  
 wet soil plants: cattail, buttercup, bullrush, skunk cabbage, **other**  
 water plants: water lily, eelgrass, milfoil, other  
 other types of vegetation

- b. What kind and amount of vegetation will be removed or altered?

**Vegetation to be impacted includes several dozen shrubs including blackberry, salmonberry, and ferns; Since the proposed work is within the existing hatchery footprint all work is planned to occur in previously disturbed areas.**

- c. List threatened or endangered species known to be on or near the site.

**The Natural Heritage Program (NHP) databases as well as the state (WDFW) and federal agency listings (USFWS) were examined for threatened or endangered plants. Pink Fawn-lily (*Erythronium revolutum*) is located approximately 1/2 mile east of the project site.**

- d. Proposed landscaping, use of native plants, or other measures to preserve or enhance vegetation on the site, if any:

**Throughout all phases native vegetation will be planted where ground-disturbing activities take place. Landscape, enhancement, and restoration areas are shown in attached planting plan. All project areas along the stream corridor be restored and enhanced.**

**Proposed plantings include Sitka Spruce, Douglas Fir, red Alder, Red Oscar Dogwood, Pacific Ninebark, Snowberry and Salmonberry.**

**Estimated plants quantities see sheet 10 Planting Plan.**

#### **5. Animals**

- a. Circle (**emboldened**) any birds and animals which have been observed on or near the site or are known to be on or near the site:

birds: **hawk, heron, eagle, waterfowl, songbirds**, other :

mammals: **deer, bear, elk, beaver**, other:

fish: **bass, salmon, trout**, herring, shellfish, other:

- b. List any threatened or endangered species known to be on or near the site.

**None known. Clallam County has identified a secondary buffer area for bald eagles near the proposed site. Clallam County has identified Bald Eagles as Species of Concern. The nearest documented sighting for Marbled Murrelets is over 6,500 feet**

from the proposed work site, and the nearest documented breeding pair of Northern Spotted Owl is over 1.75 miles from the site. No listed fish are in or near the proposed work site.

- c. Is the site part of a migration route? If so, explain.  
**The site is considered part of the Pacific Flyway used by migratory birds. The Sol Duc River is a migration route for several species of salmon and steelhead trout. The unnamed small tributary (work site) will provide off channel refuge and habitat for Salmonid species.**
- d. Proposed measures to preserve or enhance wildlife, if any:  
**The proposed project provides additional off channel rearing and spawning habitat that currently is not accessible to Sol Duc River Salmonids. Project will open up access and improve existing in water and stream side habitat conditions.**

## **6. Energy and natural resources**

- a. What kinds of energy (electric, natural gas, oil, wood stove, solar) will be used to meet the completed project's energy needs? Describe whether it will be used for heating, manufacturing, etc.  
**None**
- b. Would your project affect the potential use of solar energy by adjacent properties? If so, generally describe.  
**No**
- c. What kinds of energy conservation features are included in the plans of this proposal? List other proposed measures to reduce or control energy impacts, if any:  
**None are included.**

## **7. Environmental health**

- a. Are there any environmental health hazards, including exposure to toxic chemicals, risk of fire and explosion, spill, or hazardous waste, that could occur as a result of this proposal? If so, describe.  
**A leak of spill of oil, diesel, or hydraulic fluid could occur from construction equipment.**
- 1) Describe special emergency services that might be required.  
**None**
- 2) Proposed measures to reduce or control environmental health hazards, if any:  
**Construction equipment will be staged and fueled at a safe away from any water body. All construction equipment will be inspected daily for fluid leaks.**
- b. Noise
- 1) What types of noise exist in the area which may affect your project (for example: traffic, equipment, operation, other)?  
**There are no noises anticipated that would affect this proposed project.**
- 2) What types and levels of noise would be created by or associated with the project on a short-term or a long-term basis (for example: traffic, construction, operation, other)? Indicate what hours noise would come from the site.

**Short-term noise will occur from construction equipment.**

**Hours of construction will be limited to day light hours only.**

3) Proposed measures to reduce or control noise impacts, if any:

**Construction equipment will be outfitted with mufflers in good working order.**

**The air compressor will be housed within the mechanical building.**

## **8. Land and shoreline use**

a. What is the current use of the site and adjacent properties?

**The site is currently utilized as a fish hatchery or for “aquaculture” for the past 50 years; surrounding properties are dominated by commercial timber operations.**

b. Has the site been used for agriculture? If so, describe.

**The site is used for traditional aquacultural purposes. Though by most common accounts this is not viewed as a traditional agricultural use. The “aquaculture” purpose is an approved water-dependent use under the Clallam County Shorelines Master Program.**

c. Describe any structures on the site.

**The Sol Duc Hatchery is comprised of the main hatchery building, an adult holding pond bounded by upper and lower picket weirs, a sheet pile dam spanning the width of Pavel Springs, with an intake structure that connects to an extensive labyrinth of above- and below-ground water pipes. Other hatchery facilities include rearing ponds, asphalt release ponds, a pollution abatement pond, a maintenance shop, equipment garage buildings, outfall, and collection ladder.**

d. Will any structures be demolished? If so, what?

The existing plastic lined earthen pond, pond wall (approximately 45 ft span) and pond height control structures, and drain pipe will be removed from the stream. Additionally two existing 18 inch steel pipes will be removed from the stream and replaced with appropriate sized and engineered culvert pipes.

e. What is the current zoning classification of the site?

**Commercial Forest.**

f. What is the current comprehensive plan designation of the site?

**Commercial Forest.**

g. If applicable, what is the current shoreline master program designation of the site?

**Rural.**

h. Has any part of the site been classified as an "environmentally sensitive" area? If so, specify.

**No.**

i. Approximately how many people would reside or work in the completed project?

**Sol Duc would continue to be staffed with 3 employees.**

j. Approximately how many people would the completed project displace?

**None**

k. Proposed measures to avoid or reduce displacement impacts, if any:

**None**

L. Proposed measures to ensure the proposal is compatible with existing and projected land uses and plans, if any:

**None**

### 9. Housing

a. Approximately how many units would be provided, if any? Indicate whether high, middle, or low-income housing.

**No new housing is associated with the proposed project.**

b. Approximately how many units, if any, would be eliminated? Indicate whether high, middle, or low-income housing.

**None**

c. Proposed measures to reduce or control housing impacts, if any:

**None**

### 10. Aesthetics

a. What is the tallest height of any proposed structure(s), not including antennas; what is the principal exterior building material(s) proposed?

**No new buildings are associated with the proposed project. Culvert pipes will be below existing grade.**

b. What views in the immediate vicinity would be altered or obstructed?

**No impact to existing views..**

c. Proposed measures to reduce or control aesthetic impacts, if any:

**None**

### 11. Light and glare

a. What type of light or glare will the proposal produce? **None.** What time of day would it mainly occur?

b. Could light or glare from the finished project be a safety hazard or interfere with views?

**No**

c. What existing off-site sources of light or glare may affect your proposal?

**None**

d. Proposed measures to reduce or control light and glare impacts, if any:

**None**

### 12. Recreation

a. What designated and informal recreational opportunities are in the immediate vicinity?

**There are fishing, hunting and wildlife viewing opportunities adjacent to the existing hatchery grounds. The hatchery also includes a small visitor center and provides for pre-arranged**

**hatchery tours. The hatchery grounds are public lands and are open to visitors with some areas restricted for safety reasons.**

- b. Would the proposed project displace any existing recreational uses? If so, describe.  
**No, not in the long term, though there will be a construction period when the facility may limit public visitation for very short periods.**
- c. Proposed measures to reduce or control impacts on recreation, including recreation opportunities to be provided by the project or applicant, if any:  
**None**

### **13. Historic and cultural preservation**

- a. Are there any places or objects listed on, or proposed for, national, state, or local preservation registers known to be on or next to the site? If so, generally describe.  
**There are no known places or objects on or next to the site that are listed on, or proposed for national, state or local preservation registers. WDFW provided State Archeologist a proposed project for the Sol Duc Hatchery site in 2012.**
- b. Generally describe any landmarks or evidence of historic, archaeological, scientific, or cultural importance known to be on or next to the site.  
**None known, WDFW and the CORP consulted with local Tribes for another project proposed on this hatchery site in 2013, no concerns were noted.**
- c. Proposed measures to reduce or control impacts, if any:  
**WDFW will work with the Quillayute Indian Tribe and the US Army Corps of Engineers archaeologists to determine the appropriate investigations and methods of managing any potential adverse impacts of the redevelopment. No impacts are expected.**

### **14. Transportation**

- a. Identify public streets and highways serving the site, and describe proposed access to the existing street system. Show on site plans, if any.  
**The site is accessed from Highway 101 on Pavel Road.**
- b. Is site currently served by public transit? If not, what is the approximate distance to the nearest transit stop?  
**The site is not served directly by public transit. The nearest established transit site stop is in Sappho, approximately 3 miles from the hatchery site.**
- c. How many parking spaces would the completed project have? How many would the project eliminate?  
**Project will not impact current parking opportunities at the hatchery.**
- d. Will the proposal require any new roads or streets, or improvements to existing roads or streets, not including driveways? If so, generally describe (indicate whether public or private).  
**No new roads are associated with this project; a major component of the proposed project is to replace 18 inch culverts with large arch pipe culverts at two sites on Pavel Road within the existing hatchery footprint. Please see attached maps and project plans.**

e. Will the project use (or occur in the immediate vicinity of) water, rail, or air transportation? If so, generally describe.

No

f. How many vehicular trips per day would be generated by the completed project? If known, indicate when peak volumes would occur.

None

g. Proposed measures to reduce or control transportation impacts, if any:

None

**15. Public services**

a. Would the project result in an increased need for public services (for example: fire protection, police protection, health care, schools, other)? If so, generally describe.

None.

b. Proposed measures to reduce or control direct impacts on public services, if any.

None.

**16. Utilities**

a. Circle (**emboldened**) utilities currently available at the site:

**Electricity**, natural gas, **water**, **refuse service**, **telephone**, sanitary sewer, **septic system**,

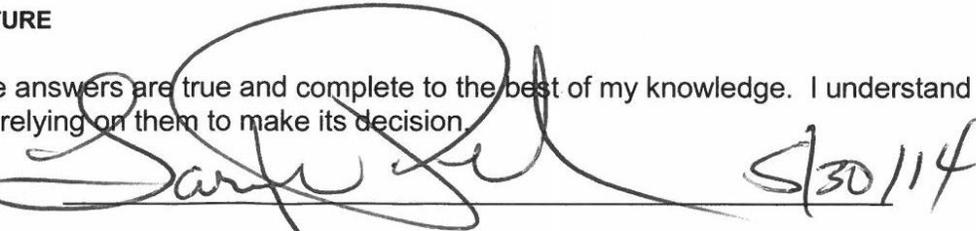
b. Describe the utilities that are proposed for the project, the utility providing the service, and the general construction activities on the site or in the immediate vicinity which might be needed.

**NONE.**

**C. SIGNATURE**

The above answers are true and complete to the best of my knowledge. I understand that the lead agency is relying on them to make its decision.

Signature:



Name of signee: Larry W. Peck

Position and Agency/Organization: **Fish and Wildlife Biologist, Washington Department of Fish and Wildlife**

Date Submitted: **May 30, 2014**