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 <u>all parts of your proposal</u>, 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:

Please adjust the format of this template as needed. 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: [help]

For nonproject proposals (such as ordinances, regulations, plans and programs), complete the applicable parts of sections A and B plus the <u>SUPPLEMENTAL SHEET FOR NONPROJECT ACTIONS (part D)</u>. Please completely answer 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. The lead agency may exclude (for non-projects) questions in Part B - Environmental Elements –that do not contribute meaningfully to the analysis of the proposal.

A. Background [help]

- 1. Name of proposed project, if applicable: [help]

 Marblemount Hatchery Jordan Creek Intake
- 2. Name of applicant: [help]

Washington State Fish and Wildlife (WDFW)

3. Address and phone number of applicant and contact person: [help]

Washington State Fish and Wildlife, Capital and Asset Management Program Doug Wiedemeier 600 Capitol Way North Olympia, WA. 98801 360 902 8422

Douglas. Wiedemeier@dfw.wa.gov

4. Date checklist prepared: [help]

February 16, 2017

5. Agency requesting checklist: [help]

Washington State of Fish and Wildlife

6. Proposed timing or schedule (including phasing, if applicable): [help]

Summer, Fall, 2017 uplands material staging, uplands work Summer 2018, in-water work, uplands work, project completion

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

No

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

A biological assessment will be prepared for the Jordan Creek Intake. A wetlands delineation was prepared in 2013 that included the intake site, and no wetlands or wetland buffers were found within the project area.

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. [help]

None are known.

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

A Corps permit, a Skagit County Substantial Development Permit, an Aquatic Lease from DNR, and an HPA will be required for the Jordan Creek Intake project. Work above Ordinary High Water (OHW) is planned to start in 2017 (prior to obtaining all permits for in-stream work) while work below OHW will take place in 2018. WDFW will seek processing through the Fish Habitat Enhancement Process.

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.) [help]

The existing 70 year old water intake on Jordan Creek and its associated instream weir are not compliant with State and Federal standards for fish screens and fish passage. This project will replace the existing intake entirely to provide a fish screen and weir fully meeting all standards for screens and fish passage.

The project consists of a concrete intake & fishladder on the right bank, a 4' wide concrete sluice in the stream alongside the intake, a 26' wide by 125' long roughened channel instream, and a

low, at-grade instream weir at the same elevation of the upstream end of the roughened channel. The fishladder on the right bank will provide fish passage at all flows but will provide the only passage at the lowest stream flows. The instream roughened channel will provide fish passage during medium and higher stream flows and prevent a drop at the weir, which was why a significant fish barrier formed.

The work will take place over two seasons of construction – ideally the summer/fall 2017 and summer 2018. The first season the existing intake will remain intact and functional while the new intake and other upland work, landward of the existing wall that forms the right bank of the creek at that location. This wall will serve to isolate the construction from the stream so that no inwater work will occur.

The second season the existing intake will be demolished and the remainder of the upland structure will be constructed. A bypass pipe or pipes will be installed on the right bank, the stream will be cofferdammed upstream and downstream of the work area, and the stream diverted through the pipe. This will allow the roughened channel and the other instream structures (including new weir) to then be constructed in the dry. The last operation will be to remove the cofferdams and bypass pipe so the stream will run down the roughened channel.

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, 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. [help]

This project is at 8319 Fish Hatchery Road, Marblemount, WA. 98267; Parcel Number P46155. From Highway 20, take slight right onto Cascade River Road. Turn right into Rockport Cascade River Road. Go 0.2 miles. Take first right onto Fish Hatchery Road. 8319 Fish Hatchery Road is on the right. T 35, R11E, S18.(48.51962,-121.419565), Skagit County. Please refer to project drawings for more details.

B. ENVIRONMENTAL ELEMENTS [help]

a. General description of the site: [help]

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

The intake site is in a generally mountainous forested area

- b. What is the steepest slope on the site (approximate percent slope)? [help] 8% slope
- 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 agricultural land of long-term commercial significance and whether the proposal results in removing any of these soils. [help]

The Jordan Creek Intake has typically Kline very gravelly sandy loam and Pilchuck loamy sand soil types. These soils are excessively drained. Neither of these soil types is considered wetland or hydric soils. Some excavation will occur for the new intake.

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

No. However soils in the intake area are erosive.

e. Describe the purpose, type, total area, and approximate quantities and total affected area of any filling, excavation, and grading proposed. Indicate source of fill. [help]

The existing eroded streambed is made up of boulders, cobble and gravel. This will be regraded (approximately 6,000 square feet) using the existing boulders, cobble and gravel and some added naturally shaped boulder and cobble from a nearby rock pit, source to be determined by contractor. WDFW staff will inspect rock and source prior to transport to work site. Grading of the streambank around the new structure will be approximately 10,000 square feet composed of commercially available gravel and crushed rock.

Around 27 Cubic Yards of material will be added below OHW, and outside OHW 947.5 Cubic Yards are planned for removal.

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

Some minor erosion could occur during constructon, however use of best management practices will minimize effects (with the goal being no effect) from erosion entering Jordan Creek during construction. Implementation of erosion and sediment control measures may include but not limited to the use of silt fences, weed free straw matting, bales or straw wattles placed along the edge and top of the bank in the vicinity of the intake/fishway construction and at the water diverson area.

The new intake has been designed to minimize effects from erosion during daily use after completion of work.

- g. About what percent of the site will be covered with impervious surfaces after project construction (for example, asphalt or buildings)? [help]
 Approximately 20%.
- h. Proposed measures to reduce or control erosion, or other impacts to the earth, if any: [help] All excavation will be performed in isolation from live water, using cofferdams. Fill removal will be done by excavators and trucked up to a disposal site, either outside the work area on hatchery grounds (away from live water and outside 200 foot buffers) or off-site altogether. If placed on hatchery grounds it will be covered by seed and mulch at the conclusion of the work, and best management practices will be used to prevent erosion such as installation of sediment prevention fences and use of hay bales, straw mulch and seeding. Any stockpiled soils for construction or from excavation will be covered. Removed concrete will be disposed of off the hatchery grounds.

The work area will be kept dewatered during construction by installation of a bypass and pumping out seepage water from small sumps dug for that purpose. The water will be pumped out of the work area. If water is clear and will not affect clarity of the stream, it may be discharged into the stream. Any turbid water in the construction area will be pumped to an upland location at least 100 feet from the stream, where it will be infiltrated over undisturbed ground. Water quality standards will be met before water reaches Jordan Creek as required by regulatory agencies.

Fueling of equipment will be done in the staging area to minimize the introduction of harmful materials to the construction area. Staging areas used for construction equipment storage, vehicle storage fueling, servicing and hazardous materials storage will be in an area isolated from surface water to preclude erosion into or contamination of the stream or floodplain. Spill kit supplies will be available at all times.

Waders, boots and any other gear used will be inspected and brushed clean to avoid transferring aquatic invasive species before leaving the site. Felt sole boots will not be used to prevent the spread of invasive species.

Rewatering the in-stream work area will be done in a slow measured manner to prevent the sudden downstream release of sediment laden water. The complete rewatering process will occur in one day between sunrise and sunset to ensure adequate light for the safe and efficient inspection of the block nets and removal of any entrained fish.

2. Air [help]

a. What types of emissions to the air would result from the proposal during construction, operation, and maintenance when the project is completed? If any, generally describe and give approximate quantities if known. [help]

Typical emissions will be generated from construction equipment. No source of emissions will be generated from the completed project.

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

None are known.

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

Dust abatement measures may be used as necessary and will start with watering of road before other measures are considered. Petroleum based products will not be used for dust abatement.

- 3. Water [help]
- 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. [help]

The project involves Jordan Creek, which flows into the Cascade River. It is listed as a Type S (shoreline) water. Fish use is known. No wetlands are known at this site. A wetlands delination has been conducted at the intake location, indicating no hydric soil indicators (11/20/2012).

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. [help]

Yes. The proposed project will work in Jordan Creek during the second year and in the area adjacent to Jordan Creek in both years. This project replaces an existing intake and in-stream weir for the WDFW Marblemount Hatchery. Please refer to attached plans.

The coffer dams will be made of sandbags lined with plastic sheet, placed at each end of the project to isolate the construction area from Jordan Creek. Prior to cofferdamming, the area for

placement of the cofferdam materials will have fish removal and exclusion done by WDFW staff. After full cofferdamming, the work area will be kept isolated from fish. The work area will be kept dewatered during construction by pumping out seepage water from small sumps dug for that purpose. If water is clear and will not affect clarity of the stream, it may be discharged into the stream. Any turbid water in the construction area will be pumped to an upland location at least 100 feet from the stream, where it will be infiltrated over undisturbed ground.

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. [help]

	BELOW OUN		AROVE (OLITSIDE OLIVA)		TOTAL
		BELOW OHW		ABOVE/OUTSIDE OHW	
REMOVED	SF	CY	SF	CY	CY
Soil Excavation	5933	-1894	11119	-4171	-6065
Rounded River Rock/Boulder Excavation	0	0	0	0	0
Concrete Demolition	1674	-77	1433	-74	-151
Total Removal	7607	-1971	12552	-4245	-6216
PLACED					
Soil Backfill	1518	1446	9677	3106	4552
Rounded River Rock/Boulder Backfill	4415	491	0	0	491
Concrete Fill	774	60	2176	191	251
Steel Sheet Piling	1590	1.2	635	0.5	1.7
Total Fill	8297	1998.2	12488	3297.5	5295.7
TOTAL DISTURBED	15904	27.2	25040	-947.5	-920.3

Source of fill will not be known until a contractor is hired. Contractor will be required to identify sources prior to movement, giving WDFW the opportunity to inspect. The volume of disturbance outside OHW is negative because of the void created in constructing the fish ladder.

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

This project replaces an intake on Jordan Creek for the Marblemount Hatchery that has been in operation for 60 years. The existing intake delivers a maximum of 15.6 cfs cubic feet per second (cfs). The new intake will continue to deliver cfs in the same capacity as the existing intake; between 4.5 cfs and 15.6 cfs.

	Future Water Needs from Jordan Creek Intake											
	January	February	March	April	May	June	July	August	September	October	November	December
Jordan Creek Intake	2,000	2500	5000	6500	4000	7000	6500	4000	4,000	2,500	4,000	2,000
Total GPM	2,000	2,500	5,000	6,500	4,000	7,000	6,500	4,000	4,000	2,500	4,000	2,000
Total CFS	4.5	5.6	11.1	14.5	8.9	15.6	14.5	8.9	8.9	5.6	8.9	4.5

At project completion, the new intake will attach to a new pipeline that was installed previously in 2013 (project phase 1).

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

The intake is not located in the identified 100 year flood zone. This project is in a Skagit County Special Flood Hazard Area. Base flood zone elevation 328 M.S.L. or Depth FEMA Firm Panel 530151 0330, Flood Hazard Zone A6. See plans for location.

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. [help]

No discharges of waste materials are anticipated from the proposed project during construction or at project completion.

b. Ground Water:

- 1) Will groundwater be withdrawn from a well for drinking water or other purposes? If so, give a general description of the well, proposed uses and approximate quantities withdrawn from the well. Will water be discharged to groundwater? Give general description, purpose, and approximate quantities if known. [help]

 This project does not require any source of ground water withdrawal or discharge.
- 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. [help]

 No waste materials will be discharged to the ground from septic tanks. Pumps will discharge turbid water to designated nearby area if seepage into work area occurs and water is deamed too turbid to direct immediately back to stream.
- c. Water runoff (including stormwater):

runoff patterns from what currently occurs.

- 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. [help] The main source of runoff is precipitation as stormwater which will infiltrate through natural ground surfaces, before eventually returning to Jordan Creek. This project should not change
- 2) Could waste materials enter ground or surface waters? If so, generally describe. [help]

Best Management Practices (BMPs) are used to prevent any source of waste materials from entering surface water. Fueling of machines will be done away from any source of surface water, and in a place where drainage will not immediately get to live water. Spill kits will be available on site. No source of waste material will come from the completed project.

3) Does the proposal alter or otherwise affect drainage patterns in the vicinity of the site? If so, describe. [help]

The new intake is positioned substantially in the footprint of the existing intake, so surface water drainage patterns will largely by unaffected – drainage will be into the creek or fishladder.

d. Proposed measures to reduce or control surface, ground, and runoff water, and drainage pattern impacts, if any: [help]

During construction, runoff will be dealt with with a combination of silt fence, straw, straw waddles, and other measures as needed. Upon completion, bare ground will be replanted and seeded and monitored.

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4	Plant	C	പ്പ	nl
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a.	Check the types of vegetation found on the site: [help]
	xdeciduous tree: alder, maple, aspen, other
	xevergreen tree: <u>fir</u> , cedar, pine, other
	_xshrubs
	_xgrass
	pasture
	crop or grain
	Orchards, vineyards or other permanent crops.
	wet soil plants: cattail, buttercup, bullrush, skunk cabbage, other
	water plants: water lily, eelgrass, milfoil, other
	_x_other types of vegetation
	Jordan Creek is located in a wooded area, with several deciduous and evergreen trees.

Jordan Creek is located in a wooded area, with several deciduous and evergreen trees, grassy areas and shrubs. The creek banks in the area consist of a mix of immature alder, thimbleberry and twinberry. The access road to the Jordan Creek intake is in a forested area with an overstory of western red cedar, big leaf maple, immature alder and cottonwood. Understory species include vine maple, Himalayan blackberry, Indian plum, current, sword fern, bracken fern and stinging nettle.

b. What kind and amount of vegetation will be removed or altered? [help]

Some vegetation will be removed in the process of construction, it will be replaced with native species after completion of construction if area remains open ground. Approximately 20 trees will be removed as a result of construction, and these trees will be added to the stream as habitat components upon completion of construction. These trees will be kept intake as much as possible (with rootwads if possible) and placed back into the stream as habitat features as directed in the HPA.

c. List threatened and endangered species known to be on or near the site. <a>[help]

No threatened or endangered species of plants are known to be on or near the site.

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

If vegetation is destroyed, the area will be restored with native plants or grasses representative of what is currently found at the project site. No invasive species will be used. The goal is to revegetate any bare ground.

e. List all noxious weeds and invasive species known to be on or near the site. [help]

Himalayan blackberry.

5. Animals [help]

a. <u>List</u> any birds and <u>other</u> animals which have been observed on or near the site or are known to be on or near the site. [help]

Examples include:

birds: <u>hawk, heron, eagle, songbirds</u>, other: mammals: <u>deer, bear, elk, beaver</u>, other:

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

b. List any threatened and endangered species known to be on or near the site. [help]

Bull trout, Dolly Varden, fall Chinook, and summer and winter Steelhead are known to be present in Jordan Creek.

A Northern Spotted Owl site center is more than 6,000 feet from the project location.

No known occupied marbled murrelet habitat in the immediate area.

Other potential species that could be present according to USFWS online include: Oregon spotted frog, yellow-billed cuckoo, grizzly bear, gray wolf, Canadian lynx, North American wolverine. None are known in the area, and the Oregon spotted frog is the most likely of this group to be present.

c. Is the site part of a migration route? If so, explain. [help]

Several fish species reside in Jordan Creek that migrate through nearly year round. During construction for the new intake, fish removal will be done and fish will be prevented from entering the area with exclusion nets. Project timing windows and monitoring will minimize impacts to fish migration. The project is within the Pacific Flyway.

d. Proposed measures to preserve or enhance wildlife, if any: [help]

Fish passage will be improved upon project completion, at low flows the fish ladder will allow passage, and the roughened channel will allow for fish passage at medium and high flows. Fish will be removed from the work site prior to construction and placed in free flowing waters downstream of project. Fish will be excluded from work site while in-stream work occurs. Instream work windows should minimize impacts to migrating adult fish.

Any small animals encountered will be relocated outside work area to safer areas.

e. List any invasive animal species known to be on or near the site. [help]

None are known.

Trone are known.

- 6. Energy and Natural Resources [help]
- 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. [help]

Electric power is available at the project location, typically used for on-demand nightime lighting.

b. Would your project affect the potential use of solar energy by adjacent properties? If so, generally describe. [help]

This project will not affect the potential use of solar energy by any adjacent properties.

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: [help]

No energy conservation features are included in this project.

7. Environmental Health [help]

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. [help]

Best Management Practices (BMPs) will be used to prevent any source of waste materials from entering surface water. Fueling of machines will be done away from any source of surface water, and in a place where drainage will not immediately get to live water. Spill kits will be available on site. No source of waste material will come from the completed project.

1) Describe any known or possible contamination at the site from present or past uses. [help]

There are no known or possible contamination sources at the intake site, known from past or present uses.

- 2) Describe existing hazardous chemicals/conditions that might affect project development and design. This includes underground hazardous liquid and gas transmission pipelines located within the project area and in the vicinity. [help]

 There are no existing hazardous chemicals or conditions existing on site that could affect project development or design.
- 3) Describe any toxic or hazardous chemicals that might be stored, used, or produced during the project's development or construction, or at any time during the operating life of the project. [help]

Construction materials such as adhesives and caulking, petroleum products for equipment while work is being done will be staged away from water.

- 4) Describe special emergency services that might be required. [help] Spill kits for potential fuel spill will be available on site. No special emergency services are expected to be required.
- 5) Proposed measures to reduce or control environmental health hazards, if any: [help] Fueling and storage of construction materials kept away from the stream, with spill kits available.

b. Noise [help]

- 1) What types of noise exist in the area which may affect your project (for example: traffic, equipment, operation, other)? [help]
 No outside noise will affect this project, but local noise sources are traffic from the nearby county road.
- 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. [help]

Short term there will be an increase in noise from heavy machinery during construction.

Long term noise will include infrequent compressor noise for the air bubbling screen cleaning system. This noise is muffled in a building. Noise levels will be low and muffled.

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

Enclose equipment in a building for its protection and noise abatement.

8. Land and Shoreline Use [help]

a. What is the current use of the site and adjacent properties? Will the proposal affect current land uses on nearby or adjacent properties? If so, describe. [help]

At the Marblemount Hatchery there are hatchery outbuildings, fish raceways and holding ponds, a vault toilet, parking lots, and staff residences. A main office building is near the property entrance. The Intake is located in a forested area where the nearest building is the Marblemount Hatchery buildings, including staff residences.

This project will not affect any neighboring or nearby properties.

b. Has the project site been used as working farmlands or working forest lands? If so, describe. How much agricultural or forest land of long-term commercial significance will be converted to other uses as a result of the proposal, if any? If resource lands have not been designated, how many acres in farmland or forest land tax status will be converted to nonfarm or nonforest use? [help]
No

1) Will the proposal affect or be affected by surrounding working farm or forest land normal business operations, such as oversize equipment access, the application of pesticides, tilling, and harvesting? If so, how: [help]

No.

c. Describe any structures on the site. [help]

The existing intake area consists of a concrete wall/sluiceway structure as well as an intake with a control gate and screens. The area surrounding the intake is comprised of a graded area on the east, and a concrete weir that catches and channels high flows in Jordan creek.

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

The existing intake, wall and instream weir will be demolished and replaced.

e. What is the current zoning classification of the site? [help]

Rural Reserve.

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

Rural Reserve.

- g. If applicable, what is the current shoreline master program designation of the site? [help] *Aquatic and Rural Conservancy.*
- h. Has any part of the site been classified as a critical area by the city or county? If so, specify. [help]

The project site is classified as a Special Flood Hazard Area as identified on the flood insurance rate map (FIRM) and as adopted by Skagit County.

- i. Approximately how many people would reside or work in the completed project? [help]

 No persons would reside at the project location. WDFW staff housing is located near hatchery buildings.
- j. Approximately how many people would the completed project displace? [help] *No persons would be displaced.*
- k. Proposed measures to avoid or reduce displacement impacts, if any: <a>[help] None.
- L. Proposed measures to ensure the proposal is compatible with existing and projected land uses and plans, if any: [help]

No changes to land use. This is an upgrade to both the hatchery functions and fish passage.

m. Proposed measures to reduce or control impacts to agricultural and forest lands of long-term commercial significance, if any: [help]

No impacts to agricultural or forest lands.

- 9. Housing [help]
- a. Approximately how many units would be provided, if any? Indicate whether high, middle, or low-income housing. [help]
 None.
- Approximately how many units, if any, would be eliminated? Indicate whether high, middle, or low-income housing. [help]
 None.
- c. Proposed measures to reduce or control housing impacts, if any: <a>[help] None.
- 10. Aesthetics [help]
- a. What is the tallest height of any proposed structure(s), not including antennas; what is the principal exterior building material(s) proposed? [help]

The concrete prefab mechanical building will be approximately 10' tall.

- b. What views in the immediate vicinity would be altered or obstructed? [help] *None.*
- b. Proposed measures to reduce or control aesthetic impacts, if any: [help]
 None.
- 11. Light and Glare [help]
- a. What type of light or glare will the proposal produce? What time of day would it mainly occur? [help]

On-demand nightime lighting controlled by motion detection will be used.

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

 No.
- c. What existing off-site sources of light or glare may affect your proposal? [help]

 None.
- d. Proposed measures to reduce or control light and glare impacts, if any: [help] *Use lighting that is directed to the subject to be illuminated, not area lighting, and use on-demand nightime lighting.*

12. Recreation [help]

- a. What designated and informal recreational opportunities are in the immediate vicinity? [help] Fishing, boating, trail riding, camping, and hiking are popular in the immediate vicinity. Bird watching, wildlife watching, and nature viewing are also popular activities in the project area. The Cascade River that is in the vicinity of Jordan Creek is classified as a wild and scenic river by the U.S. Wild and Scenic Rivers Act (16 USC 1271-1287).
- b. Would the proposed project displace any existing recreational uses? If so, describe. [help] No.
- c. Proposed measures to reduce or control impacts on recreation, including recreation opportunities to be provided by the project or applicant, if any: [help]
 None.

13. Historic and cultural preservation [help]

a. Are there any buildings, structures, or sites, located on or near the site that are over 45 years old listed in or eligible for listing in national, state, or local preservation registers? If so, specifically describe. [help]

The existing intake itself was constructed in 1946 and has had occasional modifications.

b. Are there any landmarks, features, or other evidence of Indian or historic use or occupation? This may include human burials or old cemeteries. Are there any material evidence, artifacts, or areas of cultural importance on or near the site? Please list any professional studies conducted at the site to identify such resources. [help]

A cultural resource study was performed for this proposed project, completed February 2013. No archeological findings were discovered.

Cultural resource studies have also been performed at the Marblemount Hatchery for past projects in 1981, 2009 and 2012. Although the Marblemount Hatchery grounds have been classified as an archaeological area of interest, previous archaeological studies have not identified any artifacts.

c. Describe the methods used to assess the potential impacts to cultural and historic resources on or near the project site. Examples include consultation with tribes and the department of archeology and historic preservation, archaeological surveys, historic maps, GIS data, etc. [help] WDFW used recent (2013) study, along with DAHP WISAARD and Predictive model in assessment.

If any potential archaeological items of interest are discovered, the area will be blocked off and construction activities will stop. The construction foreman will contact the WDFW archaeologist and the Department of Archaeology and Historic Preservation (DAHP). Work will not resume until the discovery is classified and archaeologists are satisfied. Local tribes will also be informed.

d. Proposed measures to avoid, minimize, or compensate for loss, changes to, and disturbance to resources. Please include plans for the above and any permits that may be required. [help] Research to be conducted for this assessment includes review of environmental and cultural contexts from a variety of sources including the Washington State Department of Archaeology and Historic Preservation (DAHP), Washington Information System for Architectural and Archaeological Records Data (WISAARD), Bureau of Land Management's General Land Office (GLO) Survey Records database, HistoryLink, Historic Map Works, University of Washington's Digital Collection, and Washington State University's Early Washington Maps Collection. Consultation with interested tribes and field review will be initiated upon request from the Army Corps of Engineers.

14. Transportation [help]

- a. Identify public streets and highways serving the site or affected geographic area and describe proposed access to the existing street system. Show on site plans, if any. [help] Highway 20, Rockport Cascade River Road and Fish Hatchery Road serve the site.
- b. Is the site or affected geographic area currently served by public transit? If so, generally describe. If not, what is the approximate distance to the nearest transit stop? [help]

 The nearest transit is approximately 40 miles away.
- c. How many additional parking spaces would the completed project or non-project proposal have? How many would the project or proposal eliminate? [help] None.
- d. Will the proposal require any new or improvements to existing roads, streets, pedestrian, bicycle or state transportation facilities, not including driveways? If so, generally describe (indicate whether public or private). [help]
 No.
- e. Will the project or proposal use (or occur in the immediate vicinity of) water, rail, or air transportation? If so, generally describe. [help]
 No.
- f. How many vehicular trips per day would be generated by the completed project or proposal? If known, indicate when peak volumes would occur and what percentage of the volume would be trucks (such as commercial and nonpassenger vehicles). What data or transportation models were used to make these estimates? [help]

None.

- g. Will the proposal interfere with, affect or be affected by the movement of agricultural and forest products on roads or streets in the area? If so, generally describe. [help]

 No.
- h. Proposed measures to reduce or control transportation impacts, if any: [help]
 None.

15. Public Services [help]

- a. Would the project result in an increased need for public services (for example: fire protection, police protection, public transit, health care, schools, other)? If so, generally describe. [help]
 No.
- b. Proposed measures to reduce or control direct impacts on public services, if any. [help]
 None.

16. Utilities [help]

- a. Circle utilities currently available at the site: [help]
 electricity, natural gas, water, refuse service, telephone, sanitary sewer, septic system,
 other
- c. 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. [help]

The existing electrical is the only utility proposed.

C. Signature [help]

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:	Dacy Wed	lanni			
Name of signee _	Doug	Wieden			
Position and Ager	ncy/Organization F.St.	& Wildlife	Biologist,	WDFW,	CAMP
Date Submitted:	2/16/17		1	,	