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:

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 SUPPLEMENTAL SHEET FOR NONPROJECT ACTIONS (part D). 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]

South Bachelor Island Wetland Reconnection & Habitat Enhancement Project

2. Name of applicant: [help]

Washington Dept. of Fish and Wildlife
Donna Bighouse

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

5525 S. 11th St., Ridgefield, WA 98642

360-909-3553 (cell)

4. Date checklist prepared: [help]

January 8, 2018.

5. Agency requesting checklist: [help]

Washington Department of Fish and Wildlife

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

July 16-September 30, 2018 for in-water work (with a possible two week extension). There could be an additional two months of work out of water planting trees and excavation of dredge material.

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. **Not at this time.**

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

A South Bachelor Island Feasibility Report has been completed for this project. WDFW MOA Team 2016. South Bachelor Island Phase 1 Habitat Restoration Feasibility Report. WDFW Region 5, Ridgefield Washington.

Currently, WDFW is monitoring water surface elevations, and temperatures at the South Bachelor Island.

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 known.

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

HYDRAULIC PROJECT APPROVAL (HPA)
CULTURAL ASSESSMENT (SECTION 106)
HIP III Consultation (ESA)
NATIONWIDE 27 PERMIT (USACE)
POSSIBLE WATER QUALITY CERTIFICATION (SECTION 404)

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]

Washington Department of Fish and Wildlife is proposing a restoration project on the southwest side of Bachelor Island along the Columbia River RM 90 in Clark County (Figure 1). The project includes excavation of a channel through dredge spoils area to connect existing emergent marsh wetlands to the Columbia River main stem. It is anticipated that native wetland vegetation plantings and tidal

hydrology will help reduce infestation of invasive plant species and provide additional estuarine habitat function.

Historically, this wetland site consisted of offshore islands and side channel habitat. This changed when the US Army Corps of Engineers began placing dredge material from the Columbia River onto the site prior to 1951. By 1957, the outer shoreline of the islands was completely filled, creating an isolated pond, later named Turtle Lake Wetlands. Approximately 1.5 million cubic yards of dredge material was deposited along the shore over a period of 24 years. Access to juvenile salmonid habitat is now severely diminished. The few high water events when salmonids might be able to access the wetlands would likely leave them stranded for the remainder of the year.

In an effort to provide habitat to juvenile salmonids in the Lower Columbia estuary, this site has been identified as a candidate for restoration. The primary purpose of restoration is to reconnect 39 acres of existing wetlands to the Columbia River, providing secure ingress and egress to functional intertidal wetland habitat. A meandering backwater tidal channel would be created to provide year-round access to juvenile salmonids. This wetland habitat would be self-sustaining and fully influenced by tidal and fluvial forces on the main stem Columbia River.

The specific components of this project are:

Improve Wetland Habitats by connecting existing wetlands to the Columbia River through new low flow Channel: An excavated channel, approximately 2,200 feet in length and 100 feet in width, will extend from the northern end of existing open water wetlands to the Columbia River. The dredge material excavated to create the channel will be placed onsite on adjacent unvegetated areas and also used for shallow water habitat creation along the shore of the Columbia River downstream from outlet of new channel.

Shallow Water Habitat Creation: As noted, a portion of the excavated dredge material (up to approximately half of the dredge material)) will be used to create shallow emergent wetland habitat along shoreline of Bachelor Island, with placement downstream of the connection of the new channel to the Columbia River

Piling Removal: A pile dike structure is located at the north end of the existing open water wetland. The structure consists of approximately 120 derelict untreated pilings, which were most likely constructed prior to dredge spoils placement, pre-1950. An excavator located on dry land will be used to pull one third of the pilings from the wetland.

Native Vegetation Establishment: Restoration and enhancement of native vegetation along the new tidal channel and other disturbed areas, will be incorporated into the project. Along the new channel margins, approximately 1 acre of channel shoreline vegetation will be established. Approximately one additional acre of replanting is planned for the shoreline area where the excavated material will be

used beneficially for shallow water habitat creation.

Site Access: The project area will be accessed via an existing gravel road located west of the USFWS Ridgefield Refuge Shop on Bachelor Island. Heavy equipment will be staged and materials stockpiled within an upland area adjacent to the access road. Prior to construction the boundaries of all the wetlands and project area (as drawn in the attached plans) will be clearly marked. All equipment and personnel will remain within the project boundaries.

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]

The South Bachelor Island Restoration Project is located on State Owned Aquatic Lands (SOAL), managed by the Washington State Department of Natural Resources. The site can be accessed by boat from the Columbia River or by driving in from the United States Fish and Wildlife Service (USFWS) Ridgefield National Wildlife Refuge (NWR) Bachelor Island Unit. The shoreline area of the Columbia River in the project reach is also SOAL.

The SBI Restoration Project site is bordered by federal land (USFWS Ridgefield Wildldife Refuge) to the east, south and north and the Columbia River to the west,. The site is located in sections 22, 24, 27, township 4 North, range 1 West, within Clark County.

See Vicinity Map

B. ENVIRONMENTAL ELEMENTS [help]

1. Earth [help]

a. General description of the site: [help]

(circle one): Flat, **rolling**, hilly, steep slopes, mountainous, other **drege material cones**

b. What is the steepest slope on the site (approximate percent slope)? [help]
8 percent

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]

Most of the site consists of Pilchuck fine sand (0 to 8 percent slopes) that was deposited by the USACE from the Columbia River channel maintenance between 1951 and 1975. The eastern bank of the wetland contains Sauvie silt loam (3 to 8 percent slopes) and forms the boundary of the Ridgefield National Wildlife Refuge.

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

None Known.

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]

It is anticipated that approximately 120,000 cubic yards of fill material will be excavated from the planned connection channel, all of which currently occurs within the 100-year floodplain of the Columbia River. The purpose of this channel is to restore hydrologic connectivity between exhe isting wetlands and the Columbia River. All excavation and fill material is known to have been deposited at the site by USACE Navigation Channel dredging actions, and the material type is generally sand. Excavated sand will be placed in four onsite locations near the channel excavation area (see Sheets #2 Site Plans).

- **Approximately 65,000 cubic yards will be placed at or below OHWM to be entrained by natural hydrologic processes and to build low marsh habitat on site, improving overall riverbank habitat conditions (a portion of Fill Area D). We have requested this amount from USACE however depending on permitting this quantity could end up being less than this.**
- **Approximately 56,000 cubic yards will be placed outside of OHWM, but within the 100-year floodplain (Fill Areas A, B & a portion of C). (None of the fill placement is in wetlands.)**

Excavated sand will be hauled from the channel excavation area using off-road dump trucks to designated fill areas in upland areas and along the Columbia River shoreline. Fill placed along the river shoreline will be graded where necessary to meet sloping requirements to facilitate the gradual entrainment of sand into the river. The intent of this approach is to create shallow water habitats in downstream shoaling areas through time as the material is distributed downstream during high river flows.

The proposed project will create a 2300 foot long channel, 90 to 100 ft. wide and excavated down to an elevation of 5 ft. NAVD88. This will create a total excavation footprint of approximately 8 acres within the 100-year floodplain. Of that channel footprint, approximately 0.8 acres (~13,000 cubic yards) is in wetland habitat and recorded in Section 7 above. Of the remaining 7.2 acres, excavation will be as follows:

- **Approximately 0.6 acres will occur below the OHWM, totaling 3,987 cubic yards of sand both placed by dredge operations and natural processes.**
- **Approximately 6.6 acres will be above OHWM, but in uplands within the 100-year floodplain, totaling 103,661 cubic yards of sand placed by dredge operations.**

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

No. Temporary erosion control measures will be implemented. An erosion/siltation control plan has been designed for this project. See Sheet #2 of design plans.

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

None

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

Erosion control methods include: stabilized construction access points, silt fences, straw bales, and straw waddles. Silt barriers will be properly maintained until construction is completed and the soils are stabilized.

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]

Automobile and heavy equipment exhaust, dust during construction. No emissions to the air after construction. Quantities are unknown.

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

None known.

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

Construction equipment will utilize properly functioning exhaust systems.

Limit the construction hours from 6:00 am to 6:00 pm daily

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 Columbia River is a type F, fish bearing river as designated by the Washington State Department of Natural Resources. The new low flow channel will connect an isolated 40 acre pond known as Turtle Lake wetlands to the Columbia River near River Mile 90. The National Wetlands Inventory shows the site contains freshwater emergent and forested/shrub wetlands. Other seasonal and temporary ponds are observed during wet months.

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 purpose of this project is to restore juvenile salmon habitat within the lower Columbia River Estuary. The South Bachelor Island Wetland Connection and Habitat Restoration project establishes connectivity between the Columbia River and 40 acres of off-channel wetland habitat. The project will enhance a wetland lagoon feature created by dredge material placement in shallow water channel habitat by removing placed materials, and planting native wetland vegetation. The dredge material excavated to create the channel will be placed onsite on adjacent unvegetated areas and also used for shallow water habitat creation along the shore of the Columbia River downstream from outlet of new channel. See attached 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. [help]

Channel Excavation Material:

All fill and dredge material consists of sand historically placed by USACE dredge activities between approximately the 1930's to the 1970's. No more than 13,000 cubic yards of sand will be excavated from identified wetlands within the proposed channel footprint. If any substantive organic material comes from Wetland A (ie Sauvie silt loam), this material will be retained and placed along the newly constructed channel. Sand will be moved using excavators, dozers, and off-road dump trucks and placed in four adjacent locations:

- **Approximately 23% of the excavated material will go to Fill Areas A, B, and C immediately adjacent to the proposed channel in upland habitat (see Site Plans). The primary goal is to move excavated dredge material into the depressions between sand cones and not raise the floodplain beyond existing maximum elevation.**
- **Approximately 77% of the excavated material will go downstream of the proposed channel in the Fill Area D, of which approximately 2/3 is below the ordinary high water mark (OHWM). Some portion of the sand placed in this location is assumed to be transitory and will be gradually mobilized and transported to downstream shoaling areas during high river flows.**

Wetland	Size (acre)	Wetland Classification				Buffer Width (feet)[C]
		Cowardin[A]	Hydrology[A]	HGM	Ecology[B]	
A	16.5	PUB	Permanent	Depressional	Cat III	75 ft.
B	15.0	PEM	Seasonal	Slope	Cat IV	25 ft.
C	2.4	PEM	Temporary	Slope	Cat IV	25 ft.
D	0.6	PUS	Seasonal	Depressional	Cat IV	25 ft.

Notes:
A. Cowardin et al. (1979) or National Wetland Inventory (NWI) Class based on vegetation: PUB = Palustrine Unconsolidated Bottom; PEM = Palustrine Emergent; PUS = Palustrine Unconsolidated Shore; PFO = Palustrine Forested
B. Ecology rating according to Hruby (2014)
C. According to Clark County Ordinance 40.450 Wetland Protection (2017)

Pile Dike Structure:

A Pile Dike structure exists at the North end of the existing open water wetlands at the (see Site Plans, Sheet 2). Approximately one-third of the pilings will be removed in clusters along the line of 120 piles in Wetland A. Piles will be removed using a land-based excavator. The piles were not treated with creosote and if they remain intact following removal can be placed along the edge of the wetland for habitat.

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

No

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

Yes, the project site lies completely within the 100 year floodplain.

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

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]

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. [help]

No waste material will be discharged as a part of this project.

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. [help]

Stormwater runoff for this project will not change. Water will follow its natural course and drain into the Columbia River..

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

No

3) Does the proposal alter or otherwise affect drainage patterns in the vicinity of the site? If so, describe. [help]
No

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

No reduction or control of surface water is proposed.

4. **Plants** [help]

a. Check the types of vegetation found on the site: [help]

_X___deciduous tree: cottonwoods, willows
_____evergreen tree:
_X___shrubs
_X___grass reed canarygrass
____pasture
____crop or grain
____ Orchards, vineyards or other permanent crops.
__X__ wet soil plants: common spikrush , smartweed, umbrella sedge
__X__water plants: unknown
_____other types of vegetation

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

Small native shrubs and some cottonwoods will be removed in limited instances. This material will be used for habitat enhancement onsite.

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

A search was conducted from the Natural Heritage Information System and there was no record of listed plant species in the area.

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

Native plants have been incorporated into a planting plan.

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

Reed canarygrass, shiny geranium, indigo bush and yellow flag iris.

5. **Animals** [help]

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

birds: **hawk, heron, eagle, songbirds, waterfowl, purple martin, sandhill crane, nuthatch, Trumpeter Swan**:
mammals: **deer, beaver, Nutria, coyote**:
fish: **bass, salmon, and carp**
painted turtles

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

Chinook, coho, and chum salmon and steelhead are all listed as threatened under the ESA in the Columbia River
Columbia White tailed deer are listed as threatened and are known to be near our project site.

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

Yes.
All Columbia River salmonids migrate upstream and downstream of this site. The site is also on the Pacific Flyway migration route for waterfowl birds and cranes.

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

A freshwater wetland, riparian habitat, and freshwater estuary restoration project is proposed for this site.

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

None

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]

None.

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

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: [help]

None

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]

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

None Known.

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]

None Known.

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]

None Known.

4) Describe special emergency services that might be required. [help]

None

5) Proposed measures to reduce or control environmental health hazards, if any: [help]

None

b. Noise [help]

1) What types of noise exist in the area which may affect your project (for example: traffic, equipment, operation, other)? [help]

None

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]

Traffic and heavy equipment for construction, 6:00 am – 6:00 pm daily.
No long term noise expected.

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

Limit the work hours from 6:00 am – 6:00 pm daily.

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]

The South Bachelor Island site is owned by WA Dept. of Natural Resources State Owned Aquatic Lands. It is an inactive dredge disposal site since 1976. Waterfowl hunters access the site by boat to hunt waterfowl. Fishermen use the shoreline to fish for salmonids during open seasons on the Columbia River

The USFWS Ridgefield National Wildlfe Refuge is located to the North, East and South of the site. The refuge is managed for the protection fish and wildlife habitat and waterfowl hunting. This site also offers an excellent opportunity for bird and wildlife watching. The Columbia River borders the site to the west.

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

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

There is an old derelict pile dike structure located in the north end of the wetland.

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

Yes. Approximaetely 40 pilings will be removed as part of the restoration of the site.

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

Rural Parks Wildlife Refuge. This inactive dredge disposal site is currently owned by WA Dept. of Natural Resources State Owned Aquatic Lands.

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

Rural Parks Open Space in current Clark County Comprehensive Plan.

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

Protection-Restoration; shoreline of the Columbia River

h.Has any part of the site been classified as a critical area by the city or county? If so, specify. [help]

Freshwater emergent and freshwater forested/shrub wetlands, freshwater pond, great blue heron breeding area, purple martin breeding area, sand hill crane regular concentration, slender billed white breasted nuthatch breeding site, waterfowl and painted turtle regular concentrations.

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

None.

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

None.

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

None.

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

This is a habitat restoration project to restore salmon habitat. The project is compatible with all existing and projected land use designations and/or regulations. Clark county will have 15 days to comment on this project to improve fish habitat through RCW 90.58.147.

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

None.

9. **Housing** [help]

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

None.

b. 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: [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]

None.

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]

None.

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]

None.

12. **Recreation** [help]

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

Some of the informal activities may include fishing, boating, hunting, bird watching and other water-related activities.

b. Would the proposed project displace any existing recreational uses? If so, describe. [help]

Minimal displacement of recreational use is anticipated if any.

c. Proposed measures to reduce or control impacts on recreation, including recreation opportunities to be provided by the project or applicant, if any: [help]

We don't anticipate any significant impacts to recreation. Waterfowl hunting will continue during established seasons, however our observations low hunting use. Planting may occur during established waterfowl seasons.

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]

Yes the pile dike structure was likely constructed in the early 1900'sby USACE. A cultural assessment has been initiated on this site to comply with requirements of Section 106.

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]

No.

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]

Consultation with tribes and the department of archeology and historic preservation is underway and an archaeological survey of the pile dike structure will be conducted. This

information will be recorded by an archaeologist and sent to DAHP. BPA is the lead on these investigations.

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]

None.

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]

There are no public streets or highways serving this 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]

No.

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]

Yes the project site is and will continue to be accessable by boat via the Columbia River.

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 _____

None.

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]

None.

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: 

Name of signee: Donna Bighouse

Position and Agency/Organization: Fish & Wildlife Biologist 3/Washington Dept. of Fish & Wildlife

Date Submitted: March 16, 2018