

ENVIRONMENTAL CHECKLIST

A. BACKGROUND

1. Name of the proposed project, if applicable:

Milltown Island Estuary Restoration Project

2. Name of Applicant:

Washington Department of Fish and Wildlife (WDFW)

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

Chris Gourley

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Olympia, WA 98501

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360-790-3118

4. Date checklist prepared:

May 23, 2022

5. Agency requesting checklist:

Washington Department of Fish and Wildlife

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

The proposed start date of the project is July 01, 2023 and will last through October 31, 2024. Timing for in-water work will follow a work window specific to this project approved by regulators and present in the Corps permitting package and the Hydraulic Project Approval (HPA).

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

There are no plans for future additions or expansions.

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

Documents that have been or will be prepared that are related to the project include:

- *100% Design Report Milltown Island Restoration Project (ESA and Cardno, 2022)*

- *USFWS/NMFS SPIF Form and USFWS No Effect Letter*
- *Endangered Species Act Limit 8 documentation*
- *No-rise analysis report*
- *Wetland Delineation Report*
- *Cultural Resources Report*

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.

There are no applications pending for government approvals or other proposals affecting the project parcels.

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

The following permits/approvals may be required for this project:

- *Flood hazard permit - Skagit County*
- *Hydraulic Project Approval (HPA) - WDFW*
- *Section 401 Water Quality Certification – Washington State Department of Ecology (Ecology)*
- *Section 404 – US Army Corps of Engineers (Corps)*
- *Section 10 – Corps*
- *Limit 8 and Programmatic Endangered Species Act Consultation with National Marine Fisheries Service (NMFS) and US Fish and Wildlife Service (USFWS)*

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.

The goal of the Milltown Island Estuary Restoration is to enhance crucial existing habitats to Chinook and other salmonids by connecting existing channels and removing impediments to natural estuarine processes ensuring habitats are accessible, self-sustaining, and resilient to climate change. This project will improve the quality and quantity of rearing habitat for juvenile salmonids through the creation of blind tide channels and blind channel alcoves, levee-lowering zones, and the formation and planting of wetland habitat mounds. The design includes 13 new channel networks totaling approximately 9,050 linear feet with 12 new direct breach locations to South Fork Skagit River distributaries; these channel networks include 37 blind channel alcoves off the primary and secondary tide channels. The existing levee will be removed and replaced with open channels. 3 tidal headwater areas, each encompassing approximately 0.5 acre, will be created and will outlet to tidal channels. There will be approximately 12

acres of native vegetation planting with a majority of planting focused on the creation of scrub-shrub and forested tidal wetlands.

Mitigation measures are as follows:

- *Culvert removal – two 30-inch culverts which are currently not passable by fish will be removed and replaced with an open channel*
- *Blind tide channels – 13 new channel networks will be created totaling approximately 9,050 linear feet for juvenile salmonid use*
- *Blind channel alcoves – 37 blind channel alcoves will be added with the expectation that over time they will evolve into longer tide channels as the site continually develops providing even more habitat for juvenile salmonids*
- *Tidal headwaters – the project will create 3 tidal headwaters in the central portion of the island and will outlet to tidal channels to prevent fish stranding*
- *Levee-lowering – these zones will occur adjacent to a proposed tide channel or in a location identified by hydraulic monitoring and are designed to improve tidal and fluvial connectivity by eliminating artificial barriers that are preventing geomorphic processes on the island. These zones will increase distribution of sediment, wood, and high-energy flows on the island during flood events.*
- *Wetland habitat mounds – These mounds will be planted with native species identified by the Skagit River System Cooperative (SRSC) and are designed to increase topographic and vegetative heterogeneity. This will increase habitat complexity on the island and is intended to increase vegetative structure and diversity (identified by Puget Sound Nearshore Ecosystem Restoration Project as an important component to restoring functions and processes on the island).*

Milltown Island is located in an unincorporated area of Skagit County about 2 miles south of Conway, Washington (JARPA Plan Sheet 3). The project site consists of 220 acres of high marsh, scrub-shrub, and freshwater tidal wetlands on the South Fork (SF) Skagit River delta. The island is bordered by Tom Moore Slough to the east and Steamboat Slough to the west.

The major elements of the preliminary design include blind tide channels, levee-lowering zones, wetland habitat mounds, tidal headwaters, blind channel alcoves, and low angle barge landings. The design includes 14 new channel networks totaling ~9,050 linear feet with 12 new direct breach locations to South Fork Skagit River distributaries. These channel networks include 37 blind channel alcoves off primary and secondary tide channels (JARPA Plan Sheet 5). The existing levees will be lowered or breached to tidal and riverine flows in 22

locations totaling approximately 29,875 cubic yards (CY). Approximately 12 acres of tidal marsh will be planted with a majority of planting focused on restoring scrub-shrub and forested tidal wetland vegetation communities.

- 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.**

The project is located on the lower South Fork Skagit River at the Skagit Bay estuary in Sections 30 and 31 Township 33N Range 4E, and the exact site location is 48.312754, -122.352019. Steamboat Slough is located to the west of Milltown Island and Tom Moore Slough is located to the east of the island. These sloughs are part of a matrix of habitats making up the lower South Fork Skagit River at the Skagit Bay estuary (JARPA Sheet 3).

The site is made up of ten parcels (P17495, P17496, P17502, P17504, P17505, P17520, P17522, P17531, P17532, P17534) with the following legal descriptions:

- *P17496 - (39.9200 ac) GOVERNMENT LOT 6, SECTION 30, TOWNSHIP 33 NORTH, RANGE 4 EAST, W.M.*
- *P17495 - (18.5400 ac) TR IN GOVERNMENT LOT 5, SECTION 30, TOWNSHIP 33 NORTH, RANGE 4 EAST, W.M.*
- *P17520 - (13.8500 ac) TAX 6 GOVERNMENT LOT 9, SECTION 30, TOWNSHIP 33 NORTH, RANGE 4 EAST, W.M., E OF E LI OF DIKE & TH PTN OF N 8AC OF LT 12 E OF E LI OF DIKE*
- *P17522 - (0.2300 ac) TAX 8 R/W 15FT WIDE IN GOVERNMENT LOT 12, SECTION 30, TOWNSHIP 33 NORTH, RANGE 4 EAST, W.M., BEG 328FT S 86DEG W FR W LI CO BRDGE OVER MOORES SLO TH S 5DEG W 100FT TH 16-30 W 257FT TO S LI SD LT*
- *P17502 - (59.0100 ac) GOVERNMENT LOT 10, SECTION 30, TOWNSHIP 33 NORTH, RANGE 4 EAST, W.M.*
- *P17504 - (33.6400 ac) GOVERNMENT LOT 12, SECTION 30, TOWNSHIP 33 NORTH, RANGE 4 EAST, W.M., LESS PTN OF N 8AC E OF E LI OF DIKE*
- *P17505 - (0.1300 ac) RDWY 16FT X 380FT ON GOVERNMENT LOT 12, SECTION 30, TOWNSHIP 33 NORTH, RANGE 4 EAST, W.M.*
- *P17531 - (1.0000 ac) TR IN NE C GOVERNMENT LOT 2, SECTION 31, TOWNSHIP 33 NORTH, RANGE 4 EAST, W.M.*

- *P17532 - (38.3100 ac) GOVERNMENT LOT 2, SECTION 31, TOWNSHIP 33 NORTH, RANGE 4 EAST, W.M., EXC TR*
- *P17534 - (47.0300 ac) GOVERNMENT LOT 4, SECTION 31, TOWNSHIP 33 NORTH, RANGE 4 EAST, W.M.*

B. ENVIRONMENTAL ELEMENTS

1. Earth

A geotechnical investigation was performed at the project area by HWA GeoSciences, Inc. (2020). The work included a desktop review of potential geologic hazards and a limited review of existing hydrologic information. Information from the report is summarized in this section and incorporated throughout the SEPA Checklist as appropriate.

a. General description of the site (underline):

Flat, rolling, hilly, steep slopes, mountainous, other _____

Milltown Island was converted from tidal habitats to agricultural land in the late 1800s through diking and drainage. Agriculture use halted in the 1970s and it is primarily vegetated with areas of forest and estuarine marsh.

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

There is very little elevation change on the site due to its location in the broad Skagit River Delta. The steepest slopes present during and after construction will be on the existing sides of the levee which will feature no more than a 3:1 grade (ESA and CARDNO 2022).

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.

The Natural Resources Conservation Service (NRCS) (2022) maps the project site as primarily Tacoma silt loam with a small area in the south mapped as Hydraquents, tidal.

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

The site is in an area mapped with moderate to high liquefaction susceptibility (WDNR, 2022).

- e. Describe the purpose, type, total area, and approximate quantities of total affected area of any filling or grading proposed. Indicate source of fill.**

Excavation of approximately 29,875 (CY) of levee will occur for channel construction and lowering of the levees. The excavated material will be used for construction of wetland habitat mounds which will have top elevations below the Ordinary High Water Mark (OHWM) of the island. No fill material will be brought on site or removed.

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

As with any construction project, there is the potential for erosion. The construction zone is not isolated from tidal processes, and work-area isolation will be difficult. Work will be completed during summer and early fall when river levels are typically low and most work will occur during low- to mid-tide when water is partially drained from the high-marsh surface. Channels, tidal headwaters, wetland habitat mounds, and low angle landings will need to be carefully constructed to avoid excessive turbidity and water pollution. Check dams and large pumps should be used during construction of tide channels so that sections of the channels can be dewatered and constructed sequentially (ESA and Cardno, 2022). The risk for erosion will be further minimized with adherence to best management practices (BMPs) (refer to question 1.h for further discussion).

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

The project does not contain any impervious surfaces and will not result in the creation of any new impervious surfaces.

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

Best Management Practices (BMPs) will be implemented during construction. BMPs are physical, structural, and/or managerial practices that can prevent or reduce the erosion and pollution of water caused by construction activities. The following mitigation measures and BMPs will be incorporated to minimize the potential for erosion:

- *A Temporary Erosion and Sediment Control (TESC) Plan will be required to prevent sediment transport from the project area.*
- *All in-water work will adhere to the conditions, including timing restrictions, of local, state, and federal permits and approvals. Other erosion control measures will be incorporated, as necessary,*

in accordance with Skagit County and Department of Ecology requirements.

- *Straw wattles shall consist of straw wrapped in biodegradable tubular plastic or similar encasing material. Wattles shall be 8 to 10 inches in diameter.*
- *A turbidity curtain will be installed around the in-water work area to reduce turbidity flowing downstream/upstream depending on tidal effects*
- *Refueling will take place more than 100 feet from surface waters where practicable.*

2. Air

- 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.**

During the construction period, there will be a slight increase in exhaust emissions from construction vehicles and equipment, and the potential for a temporary increase in fugitive dust from earthwork. Exhaust emissions will also be generated from construction employee and equipment traffic to and from the site. Given the size of the proposed project, the number of vehicle trips will be small (estimated to be up to 10 construction vehicle trips per day on average). In addition, the project will require multiple motorized barge trips to deliver construction equipment and materials. Construction-related emissions will be below the federal general conformity de minimis thresholds applicable in Skagit County of 100 tons per year of carbon monoxide (CO) or fine particulate matter (PM10). The contractor will be required to comply with applicable Puget Sound Clean Air Agency (PSCAA) regulations (PSCAA, 2021).

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

There are no identified offsite sources of odors or emissions that will affect the proposal.

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

This project will result in temporary increases due to construction work only. No permanent increase in emissions will occur. No reduction measures are proposed.

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 site is an island in the Skagit River, located between tidally included Tom Moore Slough to the east and Steamboat Slough to the west. The Skagit River, including these sloughs are Type S waters, a shoreline of the State. The island consists of 220 acres of high marsh, scrub-shrub, and riverine wetlands (JARPA Plan Sheet 3).

- 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, all activities will be on the island, thus in and adjacent to the water described in 3.a.1 (ESA and Cardno, 2022).

- 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.**

Approximately 29,875 cubic yards of fill material will be sourced from dredge/excavated material onsite; the project has been designed so no dredge or fill material will be imported or exported off site.

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

The proposal will not require any surface water withdrawals. The proposed project includes 14 new channel networks (~9,050 linear feet) and 12 levee breaches connecting to the Skagit River distributaries. Water will be diverted into the new channels to improve habitat and estuary processes, primarily for juvenile salmonids.

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

The site is located within the 100-year floodplain. The proposal will not increase the flood potential.

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.**

The project does not involve the discharge of waste material into surface waters.

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.**

No water will be withdrawn for drinking or other purposes.

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.**

The project will not discharge waste material into the ground from a septic system or other source.

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.**

Runoff sources on the site are topographic in nature and will remain so. No impervious surface exists, and none are proposed. Storm water will flow overland and into the existing and new channels. There are no changes to runoff sources proposed.

During construction, BMPs will be implemented to ensure that sediment originating from disturbed soils will be minimized; see Question 3.d.

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

During construction there is the potential for runoff containing equipment-related materials such as motor oil, diesel fuel, and hydraulic fluid, as well as sediment. BMPs will be implemented and to reduce the potential for material leaving the site and entering the surface waters (refer to question 3.d. below).

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

Yes, drainage patterns of the project site will be modified as part of the proposed project. Levee removals and channel construction will create more connections between perimeter sloughs and the island. As a result there will be great daily tidal exchange between the site and perimeter sloughs, and more river flood water will enter the site during high river flows (ESA and Cardno 2022).

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

Drainage pattern changes have been designed to restore lost functions such as sediment transport and habitat complexity. During construction, BMPs will be implemented to minimize impact to surface, ground, and runoff water (ESA and Cardno 2022).

4. Plants

a. Check the types of vegetation found on the site:

deciduous tree: alder, maple, aspen, other

evergreen tree: fir, cedar, pine, other

shrubs

grass

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
 other types of vegetation

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

Invasive species will be removed and replaced with native plantings or seeds as part of the work activities. No native trees have been scheduled to be removed. Approximately 12 acres will be revegetated as part of the project with a majority of planting focused on the creation of scrub-shrub and forested tidal wetlands.

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

There are no threatened or endangered plant species known to be on or near the site (WDFW, 2022; WDNR, 2022).

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

Invasive vegetation (reed canarygrass and cattail) will be removed in high density areas during excavation and replaced with native vegetation plantings. These restored areas will need to be monitored as needed, and several invasive species removal efforts may be necessary to ensure native vegetation becomes established.

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

*The Washington State Department of Agriculture does not list any noxious weeds within the project area (WSDA, 2022). Invasive reed canarygrass (*Phalaris arundinacea*), Himalayan blackberry (*Rubus armeniacus*), and invasive narrow leaf cattail (*Typha angustifolia*), are dominant species on site.*

5. Animals

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. Examples include:

Amphibians: frogs, toads, and salamanders

Reptiles: N/A

Birds: songbirds, hawks, eagles

Mammals: deer, beaver, rodents, raccoons, coyote, bats

Fish: Chinook Salmon (*Oncorhynchus tshawytscha*), Chum Salmon (*Oncorhynchus keta*), Coho Salmon (*Oncorhynchus kisutch*), Bull Trout (*Salvelinus confluentus*), Steelhead/rainbow trout (*Oncorhynchus mykiss*) and Cutthroat Trout (*Oncorhynchus clarkii*)

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

*Bull trout, Puget Sound Chinook Salmon, and Puget Sound Steelhead are all documented as present in the project area, including Puget Sound and the Skagit River. Fish observed at the site include Chinook fry and juvenile coho. Fish sampling for the site is documented in Appendix B of the 100% Design Report (ESA and Cardno, 2022). Marbled Murrelet (*Brachyramphus marmoratus*) may also fly over the project area enroute from inland nesting areas to foraging areas in Puget Sound (See Attachment A for species lists from NMFS and USFWS). The project is utilizing fish habitat enhancement programmatic consultation agreements between the Corps, NMFS, and USFWS and has prepared a SPIF (specific project information forms) that will be submitted to the Corps as part of the JARPA. It was determined that the project will adversely affect Bull Trout, Chinook Salmon, and Steelhead during work activities, but that the amount of take will be minimal and completion of the project will increase critical habitat and improve survivability for salmonids moving forward.*

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

Western Washington, including the project area, is located within the Pacific Flyway, which acts as a flight corridor for migrating waterfowl and other birds. The Flyway extends from Alaska down to Mexico and South America and the proposed project is designed to provide more diverse habitats and vegetation communities, which will benefit birds. The lower SF Skagit River and estuary is migratory habitat for juvenile salmonids migrating downstream into Puget Sound, and for adults migrating upstream to spawn.

d. Proposed measures to preserve or enhance wildlife, if any.

The goal of this restoration project is to enhance and connect existing habitats important to Chinook Salmon and other salmonids and remove impediments to natural estuarine processes ensuring habitats are accessible, self-sustaining, and resilient to climate change.

Detailed project measures to enhance wildlife include excavating additional tidal channels and channel connections, removing levees that limit flood water from accessing and shaping the site, creating topographic diversity, and establishing diverse native vegetation.

- e. **List any invasive animal species known to be on or near the site.**

Based on review of Priority Habitat and Species (PHS) data and a site reconnaissance, no invasive animal species are known to utilize the project site.

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.**

The construction of the project will require the use of fuel such as diesel or gasoline to power boats and onsite equipment. As this is a habitat restoration the completed project will not have energy needs.

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

The project will not affect the use of solar energy by 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:**

No energy conservation measures 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.**

Typical risks associated with construction equipment use include spills or leaks of fuels or oils. BMPs will be applied to reduce the potential for exposure, including refueling equipment away from environmentally sensitive areas and frequently inspecting equipment for leaks.

1. Describe any known or possible contamination at the site from present or past uses.

The site was used for agriculture until the 1970s and does not contain any known or suspected sources of contamination (Ecology, 2021a,b).

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.

Hazardous conditions and chemicals are not known to be present in the project vicinity.

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.

Fuels and oils will be used on site to power construction equipment. No fuels will be stored on site after project completion.

4. Describe special emergency services that might be required.

The need for special emergency services is not anticipated.

5. Proposed measures to reduce or control environmental health hazards, if any:

Site-specific Pollution Prevention Plans and Spill Prevention and Control Plans will be developed and implemented to prevent or minimize impacts from hazardous materials during construction.

The construction contractors will be required to prepare Health and Safety Plans that address the specific construction tasks that involve exposure to potential health hazards.

No measures will be needed for the site once construction has concluded.

b. Noise

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

Noise sources in the project area include traffic on nearby I-5 and Pioneer Highway as well as overhead air traffic. These noise sources will not have an effect on the project.

- 2. What types and levels of noise would be created by or associated with the project on a short-term or long-term basis (for example: traffic, construction, operation, other)? Indicate what hours noise would come from the site.**

The project will generate noise during construction. Construction activities will result in temporary noise increases during daytime construction hours. Vehicle and equipment operation during construction will be noticeable in the vicinity of the project. Construction hours and noise levels will comply with the Skagit County general noise standards; Skagit County does not have specific construction noise standards.

- 3. Proposed measures to reduce or control noise impacts, if any:**

No measures to control noise are proposed.

8. Land and Shoreline Use

- 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.**

The site is currently owned by WDFW and has been managed for waterfowl and aquatic habitat since the 1970s. Most of the properties to the west are islands in the Skagit River delta and area also owned by WDFW and managed for habitat. Properties to the east, not within the delta, are agricultural fields with various crops. The project will not affect land use on nearby or adjacent 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?**

The project site was ditched and diked to convert it to agricultural land in the late 1800s and used for agriculture until the 1970s.

- 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:**

The proposed project is not anticipated to affect or be affected by surrounding agricultural lands. The bridge washed out and perimeter dikes broke in the 1970s at which time farming became infeasible. The 220 acre project site has been managed for fish and wildlife habitat since the 1970's

- c. Describe any structures on the site.**

Four 30-inch culverts are slated for removal. The culverts are likely not fish passable and carry flow through the perimeter levee or were likely a remnant of an old road on the island. All culverts will be removed and replaced with tidal channels for free flow of water and fish passage.

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

Three culverts will be removed, as noted immediately above. No other structures will be removed or demolished.

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

The site is zoned as Public Open Space of Regional/Statewide Importance (Skagit County, 2021a).

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

The current comprehensive plan designation is Public Open Space of Regional/Statewide Importance (Skagit County, 2021a).

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

The Skagit River is as a shoreline of statewide significance. Skagit County regulates development activities within shorelines through their Shoreline Master Program (SMP) The County is in the process of updating their Shoreline Master Program (SMP) (Skagit County, 2021b). Under current and proposed SMP, shorelines of the Skagit River within the study area are designated Natural (Skagit County, 2021b).

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

The project is not within any mapped critical areas from Skagit County. The project site consists of high marsh, scrub-shrub, and riverine wetlands on the South Fork Skagit River delta (ESA and Cardno, 2022). This project site is also mapped as wetland in the National Wetland Inventory (NWI) (USFWS, 2021).

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

No one will reside in the completed project. A limited number of people will be involved in seasonal monitoring and maintenance of the site.

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

No people reside on the project area and the completed project will not displace any people.

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

Since displacement will not occur as result of this project, no measures are proposed.

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

The land has been managed for waterfowl and aquatic habitat since the 1970s. In the 2000s small-scale dike breaches and channel excavations were completed to enhance existing aquatic habitats for salmon. A series of restoration actions have been implemented by SRSC, WDFW, and other stakeholders in 1999, 2004, 2006, 2007, 2011, and 2014 on the site.

The need for further restoration was first proposed in a conceptual design phase by the Puget Sound Nearshore Restoration Project (PSNERP, 2012) and was pursued by WDFW in 2017 when they hired ESA to develop a

Preliminary Design, alternatives analysis, and design report to restore the site (ESA and Cardno, 2022).

The project is identified as a priority in the Skagit Chinook Recovery Plan, and is consistent with House Bill 1418, the Skagit Delta Tidegate Fish Initiative and recommendations to recover ESA-listed South Resident Killer Whale.

- m. Proposed measures to ensure the proposal is compatible with nearby agricultural and forest lands of long-term commercial significance, if any:**

The project will not have any impacts on nearby agricultural lands. Therefore, no measures are proposed.

9. Housing

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

No housing units will be provided.

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

No housing units will be eliminated.

- c. Describe proposed measures to reduce or control housing impacts, if any.**

No impacts on housing are anticipated; therefore, no mitigation measures are currently planned.

10. Aesthetics

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

There are no proposed structures.

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

The site is currently managed for fish and wildlife habitat. No views in the immediate vicinity will be altered or obstructed as a result of the proposed project.

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

Impacts to aesthetics are not anticipated as a result of this project; therefore, no measures are proposed.

11. Light and Glare

- a. **What type of light or glare will the proposal produce? What time of day would it mainly occur?**

The proposed project does not include lighting and will not produce any light or glare. Although most construction is expected to occur during daylight hours, some lighting may be used during construction if it is necessary for timing of low tides.

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

As noted above, the project will not produce any light or glare, and therefore will not be a safety hazard or interfere with views.

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

There are no existing sources of light and glare that will affect the project.

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

There is no lighting proposed thus no measure to reduce or control light and glare are proposed.

12. Recreation

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

The site is currently managed for fish and wildlife habitat by WDFW. Skagit Wildlife Area, including the project site, is popular for waterfowl hunting, bird watching, photography, hiking, and kayaking (WDFW, 2019). The site is used by a limited number of recreational users because of the difficulty of access (boat access only, difficult walking conditions).

- b. **Would the proposed project displace any existing recreational uses? If so, describe.**

Operation of the project will displace hunters and other recreators from the project area during construction, including hunting season. For safety

reasons the site will be closed during construction activities which are proposed from July 01, 2023 through October 31, 2024. Project actions are anticipated to improve conditions for recreational users in the long-term by improving boat-in access (more large channels on the site, addition of low angle landings), additional of tidal headwaters and diversification of vegetation.

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

Impacts to recreation will be temporary during construction. The project will not result in continued impacts to recreation, so no measures are proposed.

13. Historic and Cultural Preservation

A Cultural Resources Report has been prepared for the project and submittal of the HPA. A brief summary of the report is summarized below (Cultural Resources Placeholder 2022).

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 located on or near the site? If so, specifically describe.

The Milltown Island Levee (previously recorded as Washington Historic Property identification number 665639 and archaeological site number 45SK00469) was constructed around 1885 for the purpose of protecting the island from flooding (Lewis and Koehler 2013; Smith 2011; Vidmar 2021). This levee was designed as a ring levee, which encompasses an area of land but is not physically tied to high ground. Since its construction, the levee has been altered several times both by natural environmental events and human-driven projects. The southern portion of the levee was extended after 1909, and improvements to the levee occurred in the 1930s by the Works Progress Administration, and in the 1960s by the USACE (Smith 2011). Damage to the levee, resulting from a flooding event around 1976, was never repaired. In 1998, the National Guard used the island as a training ground for detonation of explosives, resulting in further damage to the levee (Skagit River System Cooperative 2006).

Previous cultural resource investigations conducted by Rader (1998), Smith (2011), Bush and Rowland (2011) and Lewis and Koehler (2013) documented the history of the Milltown Island Levee and condition of different portions of the structure. The Milltown Island Levee was determined to be Not Eligible for National Register of Historic Places listing by the Washington State Historic Preservation Officer on

November 25, 2013, and recent surveys of the levee conducted in November and December 2021 confirmed that the interior portions of the island were subject to tidal fluctuations and that the levee is no longer functioning as originally intended (Smith et al. 2022; Vidmar 2021).

- 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.**

Twenty-six cultural resource investigations have been conducted within 1-mile (1.6 km) of the APE (Adams and Fagan 2008; Blukis Onat 1984; Blukis Onat et al. 1979; Blukis Onat et al. 1980; Bush and Rowland 2011; Bush et al. 2011a; Bush et al. 2011b; Bush et al. 2012; Bush et al 2013; Carpenter 1970; Hartmann 2001; Iversen et al. 2013; Iversen and Osiensky 2021; Kent 2004; Munsell 2021; Neil et al. 2008; Piper 2007; Rader 1998; Smith et al. 2022; Stilson 1972; Stipe 2009; Storey 2011; Stump 1990; Vidmar and Fackler 2021).

Five of the investigations were conducted on Milltown Island to assess the potential for project effects at levee lowering and habitat enhancement areas (Bush and Rowland 2011; Bush et al. 2013; Iversen et al. 2013; Smith et al. 2022; Vidmar and Fackler 2021).

Four historic archaeological resources are reported within 1-mile of the APE (Bennett 1978a, 1978b, 1978c; Smith 2011; Bush and English 2011). Two of these historic archaeological sites are located within the APE. A segment of the Milltown Island Levee (45SK00469) was recorded in 2011 during an earlier phase of this project (Bush and English 2011; Bush and Rowland 2011; Smith 2011). The northern portion of the APE, which contains the mainland staging area and barge landing is located within the Town of Conway (45SK00115) that was recorded by Bennett (1978b). No ground disturbing activities are proposed within the northern portion of the APE within the Town of Conway. Aside from the Milltown Island Levee structure, no historic archaeological resources have been identified within any of the previous or current investigation areas on Milltown Island.

There are also currently no known landmarks, features, or other evidence of pre-contact or historic Native American activities recorded on Milltown Island; however, nine archaeological sites containing Native American remains, artifacts and other archaeological resources were documented within 1-mile of the project area (Blukis Onat et al. 1979; Greengo 1963; Kannegaard 2016; Kidd 1962; Lyste 2012; Onat et al. 1974; Stipe 2010a, 2010b). Most of these sites were reported on the Skagit River floodplain along Moore Slough, Fisher Slough, and along the river terraces east of

Milltown Island (Adams and Fagan 2008; Bush et al. 2011a and 2011b; Bush et al. 2012; Stipe 2009). Native American human remains have been documented at four locations within the 1-mile search area (Blukis Onat 1984; Blukis Onat et al. 1979; Bush et al. 2012; Carpenter 1970; Stilson 1979; Stipe 2010b), the nearest of these are located less than 500 feet (approximately 150 meters) east of Milltown Island in levee fill (45SK00492) adjacent to a reported Native American burial site (45SK00056) (Lyste 2012).

- 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.**

In July 2021, WDFW contacted the Washington State Department of Archaeology and Historic Preservation (DAHP) and sought concurrence on additional archaeological investigations within the proposed project area. In accordance with the provisions of the Governor's Executive Order 21-02, WDFW also submitted requests to initiate consultation with the Samish Indian Nation, the Stillaguamish Tribe of Indians, and the Tulalip Tribes regarding this project. The Stillaguamish Tribe of Indians responded and coordinated with WDFW staff during fieldwork planning and investigations in 2021.

In 2021, WDFW contracted with Cardno, Inc. to prepare an updated Historic Property Inventory form for Milltown Island Levee to document the condition of the levee structure within the current project area and to conduct subsurface testing to sample the levee fill and underlying sediments at the proposed levee lowering and channel excavation locations. The results of the Cardno, Inc. investigation are presented in a technical memorandum (Vidmar and Fackler 2021). Following additional consultation with the Stillaguamish Tribe of Indians, WDFW archaeologists conducted subsurface testing to sample and characterize the levee fill and underlying sediments at additional locations within the project area during a wetland delineation completed in December 2021 and the results of this investigation are described in a separate survey report (Smith et al. 2022).

- 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.**

WDFW will monitor removal of selected constructed levee segments and excavation of channel connections within the proposed project areas near known archaeological sites, reported cemetery locations, and where natural levees were most likely to be present prior to historic levee construction. The levee lowering and channel excavation will proceed in

accordance with the provisions of a monitoring and inadvertent discovery plan that has been prepared for this project.

14. Transportation

- 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.**

The site is only accessible by boat. A private boat launch is available at Milltown Road immediately west of Pioneer Highway. Secondary launch ramps are available at the Skagit Wildlife Area Headquarters Boat Launch or the public boat ramp at Conway.

- 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?**

Skagit Transit Bus 411C provides daily transit in the area, stopping at the intersection of Milltown Road on Pioneer Highway number of times each day, but does not come within 500ft of the work area which is separated by a levee.

- c. How many additional parking spaces would the completed project or non-project proposal have? How many would the project or proposal eliminate?**

The completed project will not create or eliminate any parking spaces.

- 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).**

The proposal will not require any new or improvements to existing roads, streets, pedestrian, bicycle, or state transportation facilities.

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

The island is only accessible by boat and barges are proposed to be used during construction. Potential launch points include the Skagit Wildlife Area Headquarters Boat Launch or the public boat ramp at Conway. Coordination with private landowners may allow contractors to use the boat ramp on Tom Moore Slough adjacent to the Milltown Road intersection. The deck barges will transport heavy equipment (e.g., excavators) to approved staging areas on the Island. A small towboat,

with experienced captain and crew, will be necessary to transport the barge and its equipment up and downriver.

- 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?**

The project will not affect any vehicle trips per day to the site.

- 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.**

The completed project will generate very limited vehicular traffic and will not interfere with, affect, or be affected by the movement of agricultural or forest products. Construction activities will generate some vehicular trips in the area which is dominated by agriculture, however, the number of trips generated will not interfere with the movement of agricultural products.

- h. Proposed measures to reduce or control transportation impacts, if any:**

No measures to reduce or control transportation impacts are proposed.

15. Public Services

- 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.**

The project will not result in an increased need for public services.

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

No impacts on public services are anticipated, so no measures are proposed.

16. Utilities

- a. Underline utilities currently available at the site:**

electricity, natural gas, water, refuse service, telephone, sanitary sewer, septic system, other _____

No utilities are currently available at the site.

- 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.**

No utilities are proposed as a result of this project.

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: _____

Chris Gourley

Name of signee: _____

Position and
Agency/Organization: _____

August 15, 2022

Date Submitted: _____

D. REFERENCES

- Adams, Ron, and John Fagan. 2008. Cultural Resource Survey for the Proposed Fisher Slough Restoration Project Floodgate Replacement Phase, Skagit County, Washington. Archaeological Investigations Northwest, Inc. Report Number 2162.
- Bennett, Lee A. 1968. Archaeological Site Survey Form Update: 45SK56. Resource ID 648681 on file at the Washington Department of Archaeology and Historic Preservation, Olympia, Washington.
- 1978a Cultural Resources Site Survey Record: 45SK113. Resource ID 648731 on file at the Washington Department of Archaeology and Historic Preservation, Olympia, Washington.
- 1978b Cultural Resources Site Survey Record: 45SK115. Resource ID 648733 on file at the Washington Department of Archaeology and Historic Preservation, Olympia, Washington.
- 1978c Cultural Resources Site Survey Record: 45SK120. Resource ID 648738 on file at the Washington Department of Archaeology and Historic Preservation, Olympia, Washington.
- Blukis Onat, Astrida R. 1984. Natural and Cultural Forces Affecting the Deposition and Preservation of Prehistoric Materials Along the Southern Northwest Coast of North America. Seattle Central Community College.
- Blukis Onat, Astrida R., Lee A. Bennett, and Jan L. Hollenbeck. 1980. Cultural Resources Survey - Skagit River Levees and Channel Improvement Project Below Mount Vernon. Seattle Community College and U.S. Army Corps of Engineers, Seattle District.
- Blukis Onat, Astrida R., Lee A. Bennett, Jan L. Hollenbeck, and Rick Oswald. 1979. Cultural Resources Reconnaissance - Skagit River Bibliographic Review and Field Reconnaissance for the Skagit River Levee and Channel Improvement Project. Seattle Community College and U.S. Army Corps of Engineers, Seattle District.
- Bush, Kelly R., and Emily English. 2011. Archaeological Site Inventory Form: 45SK469. Resource ID 656800 on file at the Washington Department of Archaeology and Historic Preservation, Olympia, Washington.
- Bush, Kelly R., Lindsey Koehler, and Ian Lewis. 2013. Archaeological Investigation Report: Milltown Island Restoration Phase II, Skagit County, Washington. Equinox Research and Consulting International Inc., Concrete, Washington.
- Bush, Kelly R., and Julia M. Rowland. 2011. Archaeological Investigation Report: Milltown Island Phase II Restoration Project, Skagit County, Washington. Equinox Research and Consulting International Inc, Concrete, Washington.

- Bush, Kelly R., Julia M. Rowland and Lindsey Koehler. 2012. Archaeological Site Inventory Form Update: SK00438. Resource ID 655418 on file at the Washington Department of Archaeology and Historic Preservation, Olympia, Washington.
- Bush, Kelly R., Julia M. Rowland, Tamela S. Smart, and Lindsey E. Koehler. 2012. Archaeological Monitoring Report: Fisher Slough Freshwater Tidal Marsh Restoration Project 2011, Skagit County, Washington. Equinox Research and Consulting International Inc, Concrete, Washington.
- Bush, Kelly R., Tamela S. Smart, and Julia M. Rowland. 2011a. Archaeological Investigation and Monitoring Report: Fisher Slough Freshwater Tidal Marsh Restoration Project, Skagit County, Washington. Equinox Research and Consulting International Inc, Concrete, Washington.
- 2011b Archaeological Investigation Report: 2011 Work Plan Testing for the Fisher Slough Freshwater Tidal Marsh Restoration Project, Skagit County, Washington. Equinox Research and Consulting International Inc, Concrete, Washington. Document number 1681656 on file at the Washington Department of Archaeology and Historic Preservation, Olympia, Washington.
- Bush, Kelly, and Courtney M. Strehlow. 2020. Archaeological Monitoring for the Septic System Installation Project at 21027 Mann Road, Conway, Skagit County, Washington. Equinox Research and Consulting International, Mount Vernon, Washington.
- Carpenter, Michael. 1970. A Burial from Site 45SK56. *Washington Archaeologist* 14(3):2-3. Document number 1331975 on file at the Washington Department of Archaeology and Historic Preservation, Olympia, Washington.
- Cultural Resources Placeholder. 2022. Waiting on Reference from WDFW.
- Ecology (Washington State Department of Ecology). 2021. *State Hazardous Materials Sites Map*. Available at: <https://apps.ecology.wa.gov/facilitysite/MapData/MapSearch.aspx?RecordSearchMode=New>. Accessed August 17, 2021.
- Ecology (Washington State Department of Ecology). 2021b. What's in My Neighborhood. Available: <https://apps.ecology.wa.gov/neighborhood/>. Accessed: August 17, 2021.
- ESA (Environmental Science Associates) and Cardno. 2022. 100% Design Report Milltown Island Restoration Project. April 2022.
- Hartmann, Glenn D. 2001. Letter to Krista Graham Regarding Construction of a 180-foot Monopole in Conway. Western Shore Heritage Services, Bainbridge Island, Washington.
- Iversen, Dave and Whitney Osiensky. 2021. Archaeological Monitoring on the Bakke Property at 19356 Conway Hill Road, Mount Vernon, Washington (P17001). ASM Affiliates, Stanwood, Washington.

- Iversen, David R., Sarah Stringer-Bowsher, Shannon Davis, Jennifer Krintz, Nicholas Smith, and Alicia Sawyer. 2013. Cultural Resources Field Inventory for 15 Action Areas within the Puget Sound Nearshore Ecosystem Restoration Project (PSNERP) Area, NW Washington. ASM Affiliates, Inc., Stanwood, Washington.
- Johnson Humphries, Sarah. 2016. Archaeological Investigation Report: Mann Road Local Utility District No. 31 Project. Equinox Research and Consulting International, Mount Vernon, Washington.
- Kannegaard, R. 2016. Archaeological Site Inventory Form: 45SK00546. Resource ID 670049 on file at the Washington Department of Archaeology and Historic Preservation, Olympia, Washington.
- Kent, Ronald J. 2004. Cultural Resource Sample Survey and Archaeological Monitoring Plan for the 2004 Skagit River Levee Rehabilitation Projects in the Vicinity of Mount Vernon and Fir Island. U.S. Army Corps of Engineers, Seattle District, Washington.
- Kidd, Robert S. 1962. Archaeological Site Survey Record: 45SK56. Resource ID 648681 on file at the Washington Department of Archaeology and Historic Preservation, Olympia, Washington.
- Koehler, Lindsey E., and Tamela S. Smart. 2011. Archaeological Site Inventory Form Update: 45SK473. Resource ID 657232 on file at the Washington Department of Archaeology and Historic Preservation, Olympia, Washington.
- Lewis, Ian and Lindsey E. Koehler. 2013. Historic Property Inventory: Milltown Island Levee. Document on file at the Washington Department of Archaeology and Historic Preservation, Olympia, Washington.
- Littauer, Erin. 2015. Cultural Resources Assessment of the Interstate 5 (I-5) Fisher Creek Fish Passage Project. Washington State Department of Transportation, Cultural Resources Program Short Report No. 15-03. Document number 1686307 on file at the Washington Department of Archaeology and Historic Preservation, Olympia, Washington.
- Lyste, Kerry. 2012. Tom Moore Slough Levy. Cemetery Inventory Form (45SK00492). On file at the Washington Department of Archaeology and Historic Preservation, Olympia, Washington.
- Munsell, David. 2021. USDA-NRCS Cultural Resources Survey for the Jesalyn Pettigrew Project in Skagit County, Washington. Natural Resources Conservation Service.
- Natural Resources Conservation Service (NRCS). 2022. *Web Soil Survey*. Available at: <https://websoilsurvey.sc.egov.usda.gov/App/WebSoilSurvey.aspx>. Accessed: May 23, 2021.
- Neil, Stephanie L., Garth L. Baldwin, and Christopher L.S. Kaiser. 2008. Archaeological Assessment of the Kalmakoff Five-Lot Rural Cluster Subdivision, Stanwood, Parcel 32040600100600. Drayton Archaeological Research, Blaine, Washington.

- Piper, Jessie. 2007. Cultural Resources Assessment of I-5/Dakota Creek Vicinity Water Quality Retrofit. Northwest Archaeological Associates, Inc., Seattle, Washington.
- PSCAA (Puget Sound Clean Air Agency). 2021. PSCAA Regulations. Available: <https://www.pscleanair.org/219/PSCAA-Regulations>. Accessed: August 15, 2021.
- PSNERP. (2012). Strategic Restoration Conceptual Engineering- Design Report. Puget Sound Nearshore Ecosystem Restoration Project. Available at: <http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.352.7029&rep=rep1&type=pdf>
- Rader, Bert. 1998. Cultural Resources Reconnaissance of Deep Water Slough Environmental Enhancement, Section 1135 Project Near Milltown, Skagit County, Washington. U.S. Army Corps of Engineers, Seattle District.
- Robinson, Joan M., and Jan L. Hollenbeck. 1972. Archaeological Site Survey Form Update: 45SK56. Resource ID 648681 on file at the Washington Department of Archaeology and Historic Preservation, Olympia, Washington.
- Skagit River System Cooperative. 2006. Milltown Island Restoration Project Biological Assessment. La Conner, Washington. Electronic document: https://wdfw.wa.gov/sites/default/files/sepa/2006/06031_biological_assessment.pdf, accessed January 2022.
- Skagit County. 2021a. Skagit County iMap. <https://www.skagitcounty.net/Maps/iMap/>. Accessed: August 18, 2021.
- Skagit County. 2021b. Shoreline Master Program Update. Available at: <https://skagitcounty.net/Departments/PlanningAndPermit/SMPmain.htm>. Accessed: August 18, 2021.
- Smith, Nick. 2011. Historic Property Inventory: Milltown Island Levee. Document on file at the Washington Department of Archaeology and Historic Preservation, Olympia, Washington.
- Smith, Ross, Kayley Bass, Adam Rorabaugh, and Amanda Carlson. 2022. Milltown Island Restoration Project Archaeological Survey Report. Washington Department of Fish and Wildlife, Capital and Asset Management Program, Olympia, Washington.
- Stilson, Malcolm L. 1972. Fluctuations in Aboriginal Environmental Utilization In Response to Delta Progradation: Three Sites From Skagit County. BA thesis, University of Washington, Seattle.
- Stipe, Frank. 2009. Cultural Resource Survey for the Proposed Fisher Slough Restoration Project. Tetra Tech Inc., Bothell, Washington.
- 2010a Archaeological Site Inventory Form: SK00438. Resource ID 655418 on file at the Washington Department of Archaeology and Historic Preservation, Olympia, Washington.

- 2010b Archaeological Site Inventory Form: SK00473. Resource ID 657232 on file at the Washington Department of Archaeology and Historic Preservation, Olympia, Washington.
- Storey, Danielle. 2011. A Cultural Resource Inventory for Levee Repair Locations Along the Skagit River in Diking Districts 1, 3, 12, 17, and 22. U.S. Army Corps of Engineers, Seattle District, Environmental Resources Section, Seattle, Washington.
- Stump, Sheila A. 1990. Class 1 Historic Properties Inventory of the Proposed AT&T Fiber Optic Cable Route Blaine to Everett, Washington. BOAS, Inc., Seattle.
- USFWS (US Fish and Wildlife Services). 2021. National Wetlands Inventory. Available at: <https://www.fws.gov/wetlands/data/mapper.html>. Accessed: August 18, 2021.
- Vidmar, Alana. 2021. Historic Property Inventory Form: Milltown Island Levee. Property ID: 665639 on file at the Washington Department of Archaeology and Historic Preservation, Olympia, Washington.
- Vidmar, Alana, and Shawn Fackler. 2021. Technical Memorandum Re: Milltown Island Levee Historical Resource Inventory Form. Documentation prepared for Washington Department of Fish and Wildlife, Capital and Asset Management Program. Cardno, Inc., Seattle.
- WSDA (Washington State Department of Agriculture). 2022. Washington State Noxious Weed Data Viewer. Available at: <https://www.arcgis.com/apps/webappviewer/index.html?id=cec83bd1b9fc4d7681afd219a9197654>
- WDFW (Washington Department of Fish and Wildlife). 2019. Skagit Wildlife Area Waterfowl Hunting Guide. Available at: https://wdfw.wa.gov/sites/default/files/2019-04/skagit_hunting_guide.pdf. Accessed May 23, 2022.
- WDFW (Washington Department of Fish and Wildlife). PHS on the Web. Available at: <http://apps.wdfw.wa.gov/phsontheweb/>. Accessed May 23, 2022.
- WDNR (Washington Department of Natural Resources). 2022. Washington Geologic Information Portal. Available at: <https://geologyportal.dnr.wa.gov/> Accessed: May 23, 2022.
- WDNR. 2022. Washington Natural Heritage Program Element Occurrences – Current. Accessed May 2022. Available at: <https://data-wadnr.opendata.arcgis.com/datasets/washington-natural-heritage-program-element-occurrences-current?geometry=-122.615%2C47.510%2C-121.803%2C47.672>.