WASHINGTON STATE
Joint Aquatic Resources Permit Application (JARPA) Form[1,2] [help]

US Army Corps of Engineers ®
Seattle District

USE BLACK OR BLUE INK TO ENTER ANSWERS IN THE WHITE SPACES BELOW.

AGENCY USE ONLY

Date received:

Agency reference #: _____

Tax Parcel #(s): _____

_____

Part 1–Project Identification

1. Project Name (A name for your project that you create. Examples: Smith's Dock or Seabrook Lane Development) [help]
Lower Satsop Right Bank Conservation Project

Part 2–Applicant

The person and/or organization responsible for the project. [help]

2a. Name (Last, First, Middle)			
Nordin, Michael			
2b. Organization (If applicable)			
Grays Harbor Conservation District			
2c. Mailing Address (Street or PO Box)			
330 Pioneer Ave. W			
2d. City, State, Zip			
Montesano, WA 98563			
2e. Phone (1)	**2f.** Phone (2)	**2g.** Fax	**2h.** E-mail
360.208.4451			plutroll2005@gmail.com

[1]Additional forms may be required for the following permits:
- If your project may qualify for Department of the Army authorization through a Regional General Permit (RGP), contact the U.S. Army Corps of Engineers for application information (206) 764-3495.
- Not all cities and counties accept the JARPA for their local Shoreline permits. If you need a Shoreline permit, contact the appropriate city or county government to make sure they accept the JARPA.

[2]To access an online JARPA form with [help] screens, go to http://www.epermitting.wa.gov/site/alias__resourcecenter/jarpa_jarpa_form/9984/jarpa_form.aspx.

For other help, contact the Governor's Office for Regulatory Innovation and Assistance at (800) 917-0043 or help@oria.wa.gov.

Part 3–Authorized Agent or Contact

Person authorized to represent the applicant about the project. (Note: Authorized agent(s) must sign 11b of this application.) [help]

3a. Name (Last, First, Middle)			
MacLean, Taya K., PWS, Senior Scientist			
3b. Organization (If applicable)			
Parametrix			
3c. Mailing Address (Street or PO Box)			
1019 39th Ave. SE, Suite 100			
3d. City, State, Zip			
Puyallup, WA 98374			
3e. Phone (1)	**3f.** Phone (2)	**3g.** Fax	**3h.** E-mail
253.604.6600 (office)	503.307.5642 (personal)		tmaclean@parametrix.com

Part 4–Property Owner(s)

Contact information for people or organizations owning the property(ies) where the project will occur. Consider both **upland and aquatic** ownership because the upland owners may not own the adjacent aquatic land. [help]

☐ Same as applicant. (Skip to Part 5.)

☐ Repair or maintenance activities on existing rights-of-way or easements. (Skip to Part 5.)

☒ There are multiple upland property owners. Complete the section below and fill out JARPA Attachment A for each additional property owner.

☐ Your project is on Department of Natural Resources (DNR)-managed aquatic lands. If you don't know, contact the DNR at (360) 902-1100 to determine aquatic land ownership. If yes, complete JARPA Attachment E to apply for the Aquatic Use Authorization.

4a. Name (Last, First, Middle)			
See Attachment A.			
4b. Organization (If applicable)			
4c. Mailing Address (Street or PO Box)			
4d. City, State, Zip			
4e. Phone (1)	**4f.** Phone (2)	**4g.** Fax	**4h.** E-mail

Part 5–Project Location(s)

Identifying information about the property or properties where the project will occur. [help]

☐ There are multiple project locations (e.g. linear projects). Complete the section below and use JARPA Attachment B for each additional project location.

5a. Indicate the type of ownership of the property. (Check all that apply.) [help]

☒ Private
☐ Federal
☐ Publicly owned (state, county, city, special districts like schools, ports, etc.)
☐ Tribal
☐ Department of Natural Resources (DNR) – managed aquatic lands (Complete JARPA Attachment E)

5b. Street Address (Cannot be a PO Box. If there is no address, provide other location information in 5p.) [help]

Multiple parcels. Center parcel address: 239 E Brady Loop Road (Chapman parcel). See Attachment A.

5c. City, State, Zip (If the project is not in a city or town, provide the name of the nearest city or town.) [help]

(near) Montesano, Washington 98563

5d. County [help]

Grays Harbor County

5e. Provide the section, township, and range for the project location. [help]

¼ Section	Section	Township	Range
NE NW	Sections 1 and 12 Section 7	17N 17N	07W 06W

5f. Provide the latitude and longitude of the project location. [help]

- Example: 47.03922 N lat. / -122.89142 W long. (Use decimal degrees - NAD 83)

46.981779N, -123.493264

5g. List the tax parcel number(s) for the project location. [help]

- The local county assessor's office can provide this information.

170701440010 (Contreras)
170701440020 (Chapman)
170701440030 (Chapman)
170701440040 (Chapman)
170712120030 (Willis)
170607220010 (Olympic View Dairy)

5h. Contact information for all adjoining property owners. (If you need more space, use JARPA Attachment C.) [help]

Name	Mailing Address	Tax Parcel # (if known)
See Attachment C.		

5i. List all wetlands on or adjacent to the project location. [help]

No wetlands are present on or immediately adjacent to the project location.

5j. List all waterbodies (other than wetlands) on or adjacent to the project location. [help]

The Satsop River is located along the eastern boundary of the site.

5k. Is any part of the project area within a 100-year floodplain? [help]

☒ Yes ☐ No ☐ Don't know

5l. Briefly describe the vegetation and habitat conditions on the property. [help]

Topography of the project area is relatively flat with higher cut banks along the river. A small side channel of the Satsop River enters the site from the northeast, and this side channel is also fed by a small, unnamed tributary to the Satsop River. The eroded portion of the bank is not vegetated. Vegetation along the bank at the upstream end consists of a small stand of young deciduous forest dominated by red alder (*Alnus rubra*) with a dense shrub understory of mixed native and invasive species such as giant knotweed (*Fallopia sachalinensis*), Himalayan blackberry (*Rubus armeniacus*), and reed canarygrass (*Phalaris arundinacea*). The uplands are all under agricultural use and were planted with corn, pumpkins, and pasture grasses (conducted by T. MacLean, Parametrix, July 16, 2021).

5m. Describe how the property is currently used. [help]

Uplands consist of farmland that is used for pasture, corn and grass production, and a seasonal pumpkin patch for visitors, including a grassed airstrip (Chapman Farms). There is a rural residence at the southwestern corner of the project area, and buildings associated with agricultural and rural residential use are located along Willis Road near the entrance to the project area.

5n. Describe how the adjacent properties are currently used. [help]

Adjacent properties are used for agriculture and rural residential uses. The Satsop River includes undeveloped riparian, in-stream, and gravel bar habitat; is used for recreational fishing and boating; and is currently undergoing restoration efforts led by WDFW.

5o. Describe the structures (above and below ground) on the property, including their purpose(s) and current condition. [help]

There are no structures in the areas planned for excavation or disturbance. The Chapman and Willis residences, Chapman Farms and Olympic View Farms, and associated farm buildings are located adjacent to project areas.

5p. Provide driving directions from the closest highway to the project location, and attach a map. [help]

Travel east from Grays Harbor or west from I-5 along US 12 to milepost 14.76. Turn left onto Monte Brady Rd. In 374 feet, turn left onto Brady Loop Rd E. In 0.7 miles, turn right to stay on Brady Loop Rd E. In 1 mile, Willis Rd. will be on the left. The project area is located on private property along the right bank of the Satsop River (between river mile 1 and the Chehalis River).

Part 6–Project Description

6a. Briefly summarize the overall project. You can provide more detail in 6b. [help]

The project area is 577,158 square feet (13.25 acres) in size. The project will consist of installation of four-log jack spurs, continuous log rows, and log jacks installed in uplands set back 5 to 6 feet from the top of bank. Continuous log rows and individual or small groupings of log jacks will be placed in 5-foot-deep excavated trenches, whereas log jack spurs will be in trenches up to approximately 15 to 20 feet deep. Log rows will consist of two bundles of four logs each with ballast rocks secured on each end with cable or other suitable material. Log jacks will consist of a 6-log tetrahedral structure with a ballast boulder contained inside. Structures will be bound together using all-thread rods to connect logs and the ballast boulder will be contained within the structure using a cable sling. Slash material will be inserted within jacks to provide additional potential for trapping sediment and providing fish habitat. Log jack spurs will consist of widely spaced structures made of dense groupings of log jacks. Spurs are intended to redirect the river away from the eroding bank. The log rows, log jacks, and tails of the spurs will be mostly buried with excavated soil.

A temporary access road is proposed to provide a stabilized surface for on-site construction traffic and access for adaptive management activities. The road will be 15 feet wide and will include 80-foot diameter turn-arounds near each end and will cover approximately 1.43 acres (62,260 square feet). The road will consist of geotextile and/or geogrid laid on the existing ground surface, with approximately 1 foot of hog fuel (wood chips) placed on top, for a total volume of approximately 2,400 cubic yards. The hog fuel and geotextile/geogrid will be removed prior to the end of the 3-year maintenance period, and the area will be restored to pre-existing conditions by seeding with grass seed and/or mulch (unless another cover crop is selected for installation by the farmers).

A Stormwater Pollution Prevention Plan (SWPPP) will be prepared prior to starting construction; it will include appropriate upland erosion and sediment control measures to ensure prevention of runoff from the excavated material into the river.

The project will result in a total of approximately 23,00 square feet (0.53 acres) of excavation of native soil material (approximately 17,500 cubic yards), placement of approximately 5,300 cubic yards of rock and log material, and backfilling with native soil. All excavated soil will remain on-site and will be backfilled directly into excavated areas or spread and graded in upland areas adjacent to the completed installation. Excavation will occur to a depth of up to 20 feet below ground surface. Ground disturbance will occur only within 200,000 square feet (4.6 acres) of farmed uplands. No grading or structure placement will occur in the staging and access areas. No impacts will occur waterward of the bank or below the OHWM of the Satsop River.

Because the project cannot be constructed prior to the end of the in-water window for fish protection (by August 31), the project will be constructed entirely in uplands. Construction will occur September through October 2021 (or into November if field conditions allow). The actual project start date will depend on contractor availability, but it is anticipated that staging and assembling of log jacks and log bundles may begin in September 2021 (outside of designated shoreline and riparian buffers) and that excavation and structure placement will begin once all environmental permits are received.

Adaptive management activities consisting of structure maintenance and planting of willow wattles for added bank stability (bioengineering) will continue as deemed necessary for 3 years following construction. A web-based camera will be installed for continuous monitoring. Signage will be installed along the upstream riverbank and at local boat ramps to notify boaters of the structures as a potential hazard.

A maintenance agreement and/or temporary access/construction easement will be in place between the applicant and landowners prior to construction.

This JARPA form is accompanied by the following attachments and is intended to serve as the shoreline and land use application through Grays Harbor County:

- Attachment A. Property Owners Signature Pages

- Attachment B. Figures
- Attachment C. Adjoining Property Owners
- Attachment D. Shoreline Narrative
- Attachment E. Critical Areas Compliance Narrative
- Attachment F. Floodplains Compliance Technical Memorandum
- Attachment G. Critical Areas Report and Mitigation Plan
- Attachment H. Cultural Resources Summary
- Attachment I. SEPA Checklist
- Attachment J. Hydraulics Technical Memorandum
- Attachment K. Representative Photographs

This JARPA will also be submitted to WDFW for Hydraulic Project Approval. The project is not occurring on DNR-managed lands, and an aquatic use authorization is not required for construction. However, the Applicant has coordinated with DNR and will provide this JARPA to the agency so that any future maintenance and/or associated aquatic use authorization project needs can be addressed effectively.

A separate permit application has been submitted to USACE for Section 404 authorization, which includes Ecology Section 401 water quality certification, Endangered Species Act Section 7 compliance, and cultural resources compliance with EO 21-02 and Section 106.

6b. Describe the purpose of the project and why you want or need to perform it. [help]

The right bank of the Satsop River within the project area is anticipated to experience rates of high erosion (upwards of 115 feet per year) between June 2021 and June 2023, including up to a total of 4.39 acres by June 2022 and another 5.06 acres by June 2023. The erosion will result in complete loss of valuable farmland, and the erosion will directly result in downstream sedimentation which will negatively affect fish habitat and downstream dredge management operations in Grays Harbor.

The project purpose is to provide protection for approximately 1,950 feet of riverbank along the lower Satsop River in order to reduce current aggressive rates of erosion, conserve the right bank line, and generally preserve the river's migration corridor until the Lower Satsop Restoration and Protection Program's Phase II project is constructed (summer 2022). Through extensive coordination with WDFW, the project has been designed to be self-mitigating and will provide enhanced habitat structure for fish.

Several alternatives were considered including use of riprap, excavating a new channel, and placement of structures in-stream outside of the in-water work window. These alternatives were discussed with the Lower Satsop Restoration and Protection Program Advisory Committee (July 2021), which included all permitting agencies. It was determined that these alternatives were not practicable due to the potential for adverse effects to fish life and to fish habitat.

6c. Indicate the project category. (Check all that apply) [help]

☐ Commercial ☐ Residential ☐ Institutional ☐ Transportation ☐ Recreational

☐ Maintenance ☒ Environmental Enhancement

6d. Indicate the major elements of your project. (Check all that apply) [help]

☐ Aquaculture	☐ Culvert	☐ Float	☐ Retaining Wall (upland)
☒ Bank Stabilization	☐ Dam / Weir	☐ Floating Home	☐ Road
☐ Boat House	☐ Dike / Levee / Jetty	☐ Geotechnical Survey	☐ Scientific Measurement Device
☐ Boat Launch	☐ Ditch	☐ Land Clearing	☐ Stairs
☐ Boat Lift	☐ Dock / Pier	☐ Marina / Moorage	☐ Stormwater facility
☐ Bridge	☐ Dredging	☐ Mining	☐ Swimming Pool
☐ Bulkhead	☐ Fence	☐ Outfall Structure	☐ Utility Line
☐ Buoy	☐ Ferry Terminal	☐ Piling/Dolphin	
☐ Channel Modification	☐ Fishway	☐ Raft	
☐ Other:			

6e. Describe how you plan to construct each project element checked in 6d. Include specific construction methods and equipment to be used. [help]

- Identify where each element will occur in relation to the nearest waterbody.
- Indicate which activities are within the 100-year floodplain.

No construction activities will occur below the OHWM of the Satsop River. All activities are within the 100-year floodplain (Zone A). The bank conservation project will be constructed using the following methods:

Construction sequencing and timing of each stage: Construction will occur September through October 2021 (or into November if field conditions allow). The actual project start date will depend on contractor availability, but it is anticipated that staging and assembling of log jacks and log bundles may begin in September 2021 (outside of designated shoreline and riparian buffers) and that excavation and structure placement will begin once all environmental permits are received. Adaptive management activities consisting of structure maintenance and planting of willow wattles for added bank stability (bioengineering) will continue as deemed necessary for 3 years following construction. A web-based camera will be installed for continuous monitoring.

Site preparation: Site preparation will be minimal and limited to light grubbing of grass and agricultural crops.

Equipment to be used: Dump trucks will be used to haul logs and rock material to the staging area. The log jacks, log jack spurs, and continuous log row structures will be assembled in the staging area using chainsaws, tracked excavators, and hand tools. Once assembled, the structures will be placed with a tracked crane or excavator. Tracked excavators will be used to excavate, stockpile excavated material adjacent to areas of excavation, and replace native soil. Off-road dump trucks may be used to transport log jacks, log row bundles, and soil within the project area.

Construction materials to be used: The project will use engineered rock-ballasted log structures (log jacks, log row bundles, and log jack spurs) to reduce stream power and stabilize banks. Large, rounded boulders (ballast), steel cable, steel chain, and all-thread rods use will be minimized and only used where necessary to provide ballast and connect logs. Rock will be sourced from local quarries within the lower Chehalis River basin and will be rounded (not angular) to the extent feasible. Rock-ballasted log structures will be placed near the existing bank and are intended to sluff onto the toe of the riverbank as natural erosion occurs.

Work corridor: The project will be constructed parallel to the bank. Log jack and bundle structures will be built at the staging area along Willis Farm Road and will be transported and placed on-site in excavated trenches using tracked heavy machinery.

Staging areas and access: The staging area will be located in an upland field accessed from Willis Farm Road. The staging area and project entry point will consist of a graveled construction entrance. A 15-food

wide temporary access road consisting of hog fuel and geotextile fabric will be installed to provide access for construction and maintenance.

Stockpiling areas: Log and boulder structure materials will be temporarily stockpiled, assembled, and stored in the staging area. Temporary stockpiling of excavated native soil will occur immediately adjacent to excavation areas. Excavated soil will be replaced in excavated areas. Topsoil will also be set aside in separate stockpiles and replaced on top of excavated areas.

Running of equipment during construction: Fueling will be conducted in the staging area to protect against spills adjacent to and within the Satsop River. Tracked excavators will operate during standard daytime hours throughout construction.

Soil stabilization needs/techniques: Silt fencing will be installed along the outer limits of the riverbank to minimize potential for runoff from entering the river. Stockpiles will be short term, and the need for covering is not anticipated. Grass seed and/or mulch will be installed upon project completion (unless another cover crop is selected for installation by farmer).

Clean-up and re-vegetation: Excavated soils will be replaced, and the site will be graded to even contours. Grass seed and/or mulch will be installed upon project completion (unless another cover crop is selected for installation by farmer). The temporary access road will be removed at the end of the adaptive management period and, since no grading will be required to build the access road, it will be restored by re-seeding with pasture grass or crop seed.

Storm water controls / management: As mentioned above, a silt fence will be installed along the outer limits of the riverbank within the project area. No additional stormwater measures are anticipated.

Source location of any fill used: Rock will be sourced from local quarries within the lower Chehalis River basin and will be rounded (not angular) to the extent feasible. Trees will likely consist of conifers. Native soils to be excavated will remain on-site and used to partially bury engineered structures. Hog fuel (wood chips) used for the temporary access road will be sourced from a nearby lumber mill.

Location of any spoil disposal: All excavated native soils will remain on site and be replaced into excavated areas on top of installed/buried structures.

6f. What are the anticipated start and end dates for project construction? (Month/Year) [help]

- If the project will be constructed in phases or stages, use JARPA Attachment D to list the start and end dates of each phase or stage.

Start Date: September 2021 End Date: November 2021 ☐ See JARPA Attachment D

6g. Fair market value of the project, including materials, labor, machine rentals, etc. [help]

Approximately $1.8 million

6h. Will any portion of the project receive federal funding? [help]

- **If yes**, list each agency providing funds.

☐ Yes ☒ No ☐ Don't know

Part 7–Wetlands: Impacts and Mitigation

☐ Check here if there are wetlands or wetland buffers on or adjacent to the project area.
(If there are none, skip to Part 8.) [help]

7a. Describe how the project has been designed to avoid and minimize adverse impacts to wetlands. [help]

☒ Not applicable

7b. Will the project impact wetlands? [help]

☐ Yes ☐ No ☐ Don't know

7c. Will the project impact wetland buffers? [help]

☐ Yes ☐ No ☐ Don't know

7d. Has a wetland delineation report been prepared? [help]

- **If Yes**, submit the report, including data sheets, with the JARPA package.

☐ Yes ☐ No

7e. Have the wetlands been rated using the Western Washington or Eastern Washington Wetland Rating System? [help]

- **If Yes**, submit the wetland rating forms and figures with the JARPA package.

☐ Yes ☐ No ☐ Don't know

7f. Have you prepared a mitigation plan to compensate for any adverse impacts to wetlands? [help]

- **If Yes**, submit the plan with the JARPA package and answer 7g.
- **If No, or Not applicable**, explain below why a mitigation plan should not be required.

☐ Yes ☐ No ☐ Don't know

7g. Summarize what the mitigation plan is meant to accomplish, and describe how a watershed approach was used to design the plan. [help]

7h. Use the table below to list the type and rating of each wetland impacted, the extent and duration of the impact, and the type and amount of mitigation proposed. Or if you are submitting a mitigation plan with a similar table, you can state (below) where we can find this information in the plan. [help]

Activity (fill, drain, excavate, flood, etc.)	Wetland Name[1]	Wetland type and rating category[2]	Impact area (sq. ft. or Acres)	Duration of impact[3]	Proposed mitigation type[4]	Wetland mitigation area (sq. ft. or acres)

[1] If no official name for the wetland exists, create a unique name (such as "Wetland 1"). The name should be consistent with other project documents, such as a wetland delineation report.
[2] Ecology wetland category based on current Western Washington or Eastern Washington Wetland Rating System. Provide the wetland rating forms with the JARPA package.
[3] Indicate the days, months or years the wetland will be measurably impacted by the activity. Enter "permanent" if applicable.
[4] Creation (C), Re-establishment/Rehabilitation (R), Enhancement (E), Preservation (P), Mitigation Bank/In-lieu fee (B)

Page number(s) for similar information in the mitigation plan, if available: _____

7i. For all filling activities identified in 7h, describe the source and nature of the fill material, the amount in cubic yards that will be used, and how and where it will be placed into the wetland. [help]

7j. For all excavating activities identified in 7h, describe the excavation method, type and amount of material in cubic yards you will remove, and where the material will be disposed. [help]

Part 8–Waterbodies (other than wetlands): Impacts and Mitigation

In Part 8, “waterbodies” refers to non-wetland waterbodies. (See Part 7 for information related to wetlands.) [help]

☒ Check here if there are waterbodies on or adjacent to the project area. (If there are none, skip to Part 9.)

8a. Describe how the project is designed to avoid and minimize adverse impacts to the aquatic environment. [help]

☐ Not applicable

Rates of erosion along the right bank of the Satsop River are estimated at up to 300 feet of bank loss over the next 2 years. Post project conditions will provide bank stability, and engineered structures will reduce westward channel migration, resulting in reduced erosion rates. The project has been designed to minimize impacts to the aquatic environment and is intended to be self-mitigating, resulting in no more than minimal adverse environmental effects.

The project design has avoided and minimized adverse environmental effects to the aquatic environment and riparian zone through analysis of channel migration and erosion to focus bank conservation actions in the most effective areas. Construction activities will be set back from the bank to avoid and minimize potential for bank failure. During excavation, topsoil will be stockpiled and replaced in-kind. The project will use engineered log structures (log jacks, log row bundles, and log jack spurs) to reduce stream power and stabilize banks. Large, rounded boulders (ballast), steel cable, steel chain, and all-thread rods use will be minimized and only used where necessary to provide ballast and connect logs. Rock will be sourced from local quarries within the lower Chehalis River basin and will be rounded (not angular) to the extent feasible. Disturbance to limited remaining riparian vegetation at the upstream end of the project area will be avoided by placing continuous log rows on more stable land above the top of bank beyond the limits of riparian vegetation and by designating temporary access routes and staging areas away from riparian vegetation. Additionally, engineered structures and riparian plantings will provide an uplift in valuable fish and riparian habitat functions by providing habitat structure, complexity, and vegetative cover along the riverbank.

8b. Will your project impact a waterbody or the area around a waterbody? [help]

☒ Yes ☐ No

8c. Have you prepared a mitigation plan to compensate for the project's adverse impacts to non-wetland waterbodies? [help]

- **If Yes**, submit the plan with the JARPA package and answer 8d.
- **If No, or Not applicable,** explain below why a mitigation plan should not be required.

☐ Yes ☒ No ☐ Don't know

A mitigation plan has not been prepared for the project. The project has been designed to be self-mitigating by utilizing engineered log structures made primarily of natural materials that will engage with the river to provide fish habitat while also promoting bank stability and conservation.

To address adaptive management needs and to ensure the long-term success of the project, the following adaptive management measures are proposed and were developed in coordination with WDFW staff:

- Maintenance of structures within the channel to ensure they remain in place and function properly
- Shoreline planting of willow wattles or other bioengineering techniques as the bank erodes and structures are sluffed into the river
- Monitoring to include installation of a web-based camera to aid in monitoring the site to better inform adaptive management measures
- Annual reporting and on-going coordination with WDFW and other permitting agencies

Adaptive management will be conducted over a 3-year period following construction as the bankline erodes and structures engage with the river. At this time, it is not known where willow wattles will be needed or what exact structure maintenance needs will be implemented. Therefore, these adaptive management measures will be determined and implemented through regular coordination with WDFW.

8d. Summarize what the mitigation plan is meant to accomplish. Describe how a watershed approach was used to design the plan.

- If you already completed 7g you do not need to restate your answer here. [help]

The project purpose is to provide protection of approximately 1,950 feet of streambank along the Lower Satsop River in order to reduce the current aggressive rate of erosion, conserve the right bank line, and generally preserve the river's migration corridor until the Lower Satsop Restoration and Protection Program's Phase II project is constructed (summer 2022). Ultimately, this project will be forward compatible with the Lower Satsop Restoration and Protection Program's Phase II project.

Multiple projects have recently been completed along the Lower Satsop River focusing on flood protection and restoration. In 2019 and 2020, WDFW completed substantial restoration projects in the floodplain to remove dikes and revetments, and return river flows to floodplain areas previously inaccessible for decades. In 2020, Grays Harbor County constructed the Keys Road Flood Protection Project (i.e., Phase I of the Lower Satsop Restoration and Protection Program) that involved installation of engineered log jams and setback log structure revetments to protect Keys Road and associated infrastructure. Phase II of the Lower Satsop Restoration and Protection Program is currently in design and will be constructed in summer 2022. Recent significant bank erosion within the right bank project area has occurred, resulting in current and anticipated future loss of riparian habitat and adjacent farmland. Construction of this project in fall 2021 is intended to slow the rate of erosion until the Phase II project can be constructed. Adaptive measures for the project are intended to be in place for 3 years and may overlap with future restoration efforts.

8e. Summarize impact(s) to each waterbody in the table below. [help]

Activity (clear, dredge, fill, pile drive, etc.)	Waterbody name[1]	Impact location[2]	Duration of impact[3]	Amount of material (cubic yards) to be placed in or removed from waterbody	Area (sq. ft. or linear ft.) of waterbody directly affected
Not applicable					

[1] If no official name for the waterbody exists, create a unique name (such as "Stream 1") The name should be consistent with other documents provided.
[2] Indicate whether the impact will occur in or adjacent to the waterbody. If adjacent, provide the distance between the impact and the waterbody and indicate whether the impact will occur within the 100-year flood plain.
[3] Indicate the days, months or years the waterbody will be measurably impacted by the work. Enter "permanent" if applicable.

8f. For all activities identified in 8e, describe the source and nature of the fill material, amount (in cubic yards) you will use, and how and where it will be placed into the waterbody. [help]

Impacts below the OHWM of the Satsop River are not anticipated during construction. However, volume and area impacts associated with construction in uplands will consist of the following:

- 1,950 linear feet of streambank to be protected (total within project area)
- 1,250 linear feet of structures only (along streambank)
- 23,000 square feet (0.53 acres) and 17,500 cubic yards of excavation of native soil material (assume all native soil will be excavated and put back in place over structures)
- 23,000 square feet (0.53 acres) and 5,300 cubic yards of rock and log material
- 62,260 square feet (1.43 acres) of temporary access road and 2,400 cubic yards of hog fuel surfacing
- 5-20 feet of excavation depth below ground surface
- Limits of disturbance by vegetation type – 200,000 square feet (4.6 acres) of farmed lands

8g. For all excavating or dredging activities identified in 8e, describe the method for excavating or dredging, type and amount of material you will remove, and where the material will be disposed. [help]

Not applicable. Refer to Block 8f above.

Part 9–Additional Information

Any additional information you can provide helps the reviewer(s) understand your project. Complete as much of this section as you can. It is ok if you cannot answer a question.

9a. If you have already worked with any government agencies on this project, list them below. [help]

Agency Name	Contact Name	Phone	Most Recent Date of Contact
Grays Harbor Co.	Jane Hewitt (Shoreline/local permitting)	360.249.4222	7/29/2021
WDFW	Megan Tuttle (HPA)	360.249.1216	7/30/2021
Ecology	Nat Kale (cultural resources lead agency)	360.706.4277	7/30/2021
Ecology	Zach Meyer (Shoreline approval)	360.407.6167	7/23/2021
USACE	Evan Carnes (Sec. 404)	206.316.3049	7/28/2021
WA DNR	Rick Schwartz (no aquatic use authorization)	360.740.6813	7/20/2021

9b. Are any of the wetlands or waterbodies identified in Part 7 or Part 8 of this JARPA on the Washington Department of Ecology's 303(d) List? [help]

- **If Yes,** list the parameter(s) below.
- If you don't know, use Washington Department of Ecology's Water Quality Assessment tools at: https://ecology.wa.gov/Water-Shorelines/Water-quality/Water-improvement/Assessment-of-state-waters-303d.

☐ Yes ☒ No

9c. What U.S. Geological Survey Hydrological Unit Code (HUC) is the project in? [help]

- Go to http://cfpub.epa.gov/surf/locate/index.cfm to help identify the HUC.

The project area is located within the following HUC watersheds:

- Town of Satsop-Satsop River - HUC12: 171001040107 (along riverbank and riverward)
- Metcalf Slough-Chehalis River – 171001040406 (landward)

9d. What Water Resource Inventory Area Number (WRIA #) is the project in? [help]

- Go to https://ecology.wa.gov/Water-Shorelines/Water-supply/Water-availability/Watershed-look-up to find the WRIA #.

The project is located within Water Resources Inventory Area (WRIA) 22, the Lower Chehalis Watershed.

9e. Will the in-water construction work comply with the State of Washington water quality standards for turbidity? [help]

- Go to https://ecology.wa.gov/Water-Shorelines/Water-quality/Freshwater/Surface-water-quality-standards/Criteria for the standards.

☐ Yes ☐ No ☒ Not applicable

9f. If the project is within the jurisdiction of the Shoreline Management Act, what is the local shoreline environment designation? [help]

- If you don't know, contact the local planning department.
- For more information, go to: https://ecology.wa.gov/Water-Shorelines/Shoreline-coastal-management/Shoreline-coastal-planning/Shoreline-laws-rules-and-cases.

☐ Urban ☐ Natural ☐ Aquatic ☐ Conservancy ☒ Other: Rural Development

9g. What is the Washington Department of Natural Resources Water Type? [help]

- Go to http://www.dnr.wa.gov/forest-practices-water-typing for the Forest Practices Water Typing System.

☒ Shoreline ☐ Fish ☐ Non-Fish Perennial ☐ Non-Fish Seasonal

9h. Will this project be designed to meet the Washington Department of Ecology's most current stormwater manual? [help]

- **If No**, provide the name of the manual your project is designed to meet.

☒ Yes ☐ No

Name of manual: Not applicable.

9i. Does the project site have known contaminated sediment? [help]

- **If Yes**, please describe below.

☐ Yes ☒ No

9j. If you know what the property was used for in the past, describe below. [help]

The properties have continually been used for pasture and crop production for the past 100 years (approximate).

9k. Has a cultural resource (archaeological) survey been performed on the project area? [help]

- **If Yes**, attach it to your JARPA package.

☒ Yes ☐ No

In June 2021, Dudek excavated 21 shovel probes along the eroding bank on the Willis and Chapman parcels within the project area for another project along the Satsop (Lower Satsop Phase II). No cultural resources were identified. The project area project extends west from the bank beyond the limits of the previously tested and surveyed area. A pedestrian survey and additional subsurface testing will be conducted within the project area in August 2021 to complete the field effort for this project. Washington State Department of Ecology is leading coordination with Washington department of Archaeology and Historic Preservation (DAHP) under Executive Order 21-02 and USACE will coordinate cultural resources permitting through their Section 106 process for the USACE Section 404 permit authorization. Although the DAHP predictive model maps the Right Bank stabilization project within an area considered “very high risk for cultural resources,” the local landform is flooded regularly 5 months of the year (November–March), and the landform is not as likely to yield archaeological deposits as the model indicates. The additional survey and subsurface testing fieldwork is forthcoming, and a cultural resources technical survey report will be submitted to permitting agencies prior to permit authorization.

9l. Name each species listed under the federal Endangered Species Act that occurs in the vicinity of the project area or might be affected by the proposed work. [help]

No NMFS species or their designated critical habitat occurs within the action area. USFWS species protected under the Endangered Species Act that may occur in the vicinity are listed below (Appendix 3).

- Marbled murrelet (*Brachyramphus marmoratus*)
- Streaked Horned Lark (*Eremophila alpestris strigata*)
- Yellow-billed Cuckoo (*Coccyzus americanus*)
- Bull trout (*Salvelinus confluentus*), coastal-Puget Sound Distinct Population Segment, Critical habitat

An abbreviated biological evaluation was prepared by Parametrix and is currently under review by USACE as part of their Section 404 permit authorization process.

9m. Name each species or habitat on the Washington Department of Fish and Wildlife's Priority Habitats and Species List that might be affected by the proposed work. [help]

The project area includes a fish and wildlife habitat conservation buffer and shoreline of 150 feet from the OHWM of the Satsop River, a Type S water. Additionally, WDFW has mapped the following priority habitats and species as occurring within the project area or the vicinity:

- Fish
  - Olympic mudminnow (*Novumbra hubbsi*)
  - Chinook (*Oncorhynchus tshawytscha*)
  - Summer Chinook (*O. tshawytscha*)
  - Coho (*O. kisutch*)
  - Fall Chinook (*O. tshawytscha*)
  - Dolly Varden/ Bull Trout (*Salvelinus malma/ S. confluentus*)
  - Steelhead (*O. mykiss*)
  - Winter Steelhead (*O. mykiss*)
  - Chum (*O. keta*)
  - Trout (*O. mykiss*)
  - Cutthroat (*O. clarkii*)
  - Resident Coastal Cutthroat (*O. clarkii*)
  - Chum (*O. keta*)
- Birds:
  - Trumpeter swan (*Cygnus buccinator*)
  - Northern Spotted Owl (*Strix occidentalis*)
- Bats:
  - Yuma myotis (*Myotis yumanensis*)
  - Big brown bat (*Eptesicus fuscus*)
- Habitats:
  - Freshwater Emergent Wetlands
  - Freshwater Forested/Shrub Wetlands
  - Riverine

Part 10–SEPA Compliance and Permits

Use the resources and checklist below to identify the permits you are applying for.

- Online Project Questionnaire at http://apps.oria.wa.gov/opas/.
- Governor's Office for Regulatory Innovation and Assistance at (800) 917-0043 or help@oria.wa.gov.
- For a list of addresses to send your JARPA to, click on agency addresses for completed JARPA.

10a. Compliance with the State Environmental Policy Act (SEPA). (Check all that apply.) [help]

- For more information about SEPA, go to https://ecology.wa.gov/regulations-permits/SEPA-environmental-review.

☐ A copy of the SEPA determination or letter of exemption is included with this application.

☒ A SEPA determination is pending with Grays Harbor County (lead agency). The expected decision date is September 30, 2021.

☐ I am applying for a Fish Habitat Enhancement Exemption. (Check the box below in 10b.) [help]

☐ This project is exempt (choose type of exemption below).

☐ Categorical Exemption. Under what section of the SEPA administrative code (WAC) is it exempt? _____

☐ Other: _____

☐ SEPA is pre-empted by federal law.

10b. Indicate the permits you are applying for. (Check all that apply.) [help]

LOCAL GOVERNMENT

Local Government Shoreline permits:

☒ Substantial Development ☒ Conditional Use ☐ Variance

☐ Shoreline Exemption Type (explain): _____

Other City/County permits:

☒ Floodplain Development Permit ☒ Critical Areas Ordinance

STATE GOVERNMENT

Washington Department of Fish and Wildlife:

☒ Hydraulic Project Approval (HPA) ☐ Fish Habitat Enhancement Exemption – Attach Exemption Form

Washington Department of Natural Resources:

☐ Aquatic Use Authorization

Complete JARPA Attachment E and submit a check for $25 payable to the Washington Department of Natural Resources. **Do not send cash.**

Washington Department of Ecology:

☒ Section 401 Water Quality Certification ☐ Non-Federally Regulated Waters

FEDERAL AND TRIBAL GOVERNMENT

United States Department of the Army (U.S. Army Corps of Engineers):

☒ Section 404 (discharges into waters of the U.S.) ☐ Section 10 (work in navigable waters)

United States Coast Guard:

For projects or bridges over waters of the United States, contact the U.S. Coast Guard at: d13-pf-d13bridges@uscg.mil

☐ Bridge Permit ☐ Private Aids to Navigation (or other non-bridge permits)

United States Environmental Protection Agency:

☐ Section 401 Water Quality Certification (discharges into waters of the U.S.) on tribal lands where tribes do not have treatment as a state (TAS)

Tribal Permits: (Check with the tribe to see if there are other tribal permits, e.g., Tribal Environmental Protection Act, Shoreline Permits, Hydraulic Project Permits**,** or other in addition to CWA Section 401 WQC)

☐ Section 401 Water Quality Certification (discharges into waters of the U.S.) where the tribe has treatment as a state (TAS).

Part 11–Authorizing Signatures

Signatures are required before submitting the JARPA package. The JARPA package includes the JARPA form, project plans, photos, etc. [help]

11a. Applicant Signature (required) [help]

I certify that to the best of my knowledge and belief, the information provided in this application is true, complete, and accurate. I also certify that I have the authority to carry out the proposed activities, and I agree to start work only after I have received all necessary permits.

I hereby authorize the agent named in Part 3 of this application to act on my behalf in matters related to this application. MN (initial)

By initialing here, I state that I have the authority to grant access to the property. I also give my consent to the permitting agencies entering the property where the project is located to inspect the project site or any work related to the project. _____ (initial)

Applicant Printed Name	Applicant Signature	Date
Michael Nordin Michael J. Nordin	Michael J. Nordin	7-30-21

11b. Authorized Agent Signature [help]

I certify that to the best of my knowledge and belief, the information provided in this application is true, complete, and accurate. I also certify that I have the authority to carry out the proposed activities and I agree to start work only after all necessary permits have been issued.

Authorized Agent Printed Name	Authorized Agent Signature	Date
Taya K. MacLean, PWS	Taya K. MacLean	7/29/2021

11c. Property Owner Signature (if not applicant) [help]

Not required if project is on existing rights-of-way or easements (provide copy of easement with JARPA).

I consent to the permitting agencies entering the property where the project is located to inspect the project site or any work. These inspections shall occur at reasonable times and, if practical, with prior notice to the landowner.

Property Owner Printed Name	Property Owner Signature	Date
See attached.		

18 U.S.C §1001 provides that: Whoever, in any manner within the jurisdiction of any department or agency of the United States knowingly falsifies, conceals, or covers up by any trick, scheme, or device a material fact or makes any false, fictitious, or fraudulent statements or representations or makes or uses any false writing or document knowing same to contain any false, fictitious, or fraudulent statement or entry, shall be fined not more than $10,000 or imprisoned not more than 5 years or both.

If you require this document in another format, contact the Governor's Office for Regulatory Innovation and Assistance (ORIA) at (800) 917-0043. People with hearing loss can call 711 for Washington Relay Service. People with a speech disability can call (877) 833-6341. ORIA publication number: ORIA-16-011 rev. 09/2018