Snohomish County
Planning and Development Services

Dave Somers
County Executive

Barb Mock, Interim Director
3000 Rockefeller Avenue M/S #604
Everett, WA 98201-4046
(425) 388-3311 FAX (425) 388-3832

DETERMINATION OF NONSIGNIFICANCE

Local File Number(s): 16 101998 LDA; 16 101999 FZ; 16 101983 SHOR
Project File Name: Moga Back-Channel Reconnection Project
Applicant: Cindy Dittbrenner - Snohomish Conservation District

DESCRIPTION OF PROPOSAL: Land Disturbing Activity and flood hazard permit for a watershed restoration project to improve fish habitat by opening a relic right-bank side-channel to the Snohomish River at 15.7 river mile to reestablish connection of aquatic and riparian habitat with the river.

An evaluation of the information submitted with the application coupled with an on-site investigation has resulted in a determination that the application complies with Chapter 30.62A SCC (Wetlands and Fish & Wildlife Habitat Conservation Areas) and is consistent with the purpose and objectives of the chapter in regulation of development activities in critical areas to safeguard the public health, safety and welfare.

Location of Proposal: 15106 SHORT SCHOOL RD SNOHOMISH

Tax Account Number: 270605-002-006-00

Lead Agency: Snohomish County Planning and Development Services

THRESHOLD DETERMINATION:

The lead agency for this proposal has determined that it does not have a probable, significant adverse impact on the environment. An environmental impact statement (EIS) is NOT required under RCW 43.21C.030(2)(c). This decision was made after review by Snohomish County of a completed environmental checklist and other information on file with this agency and such information is adopted herein by reference. This information is available for public review upon request.

The lead agency has determined that the requirements for environmental analysis, protection, and mitigation measures have been adequately addressed in the development regulations and comprehensive plan adopted under chapter 36.70A RCW, and in other applicable local, state, or federal laws or rules, as provided by RCW 43.21C.240 and WAC 197-11-158. Our agency will not require any additional mitigation measures under SEPA.

This Determination of Nonsignificance is issued under WAC 197-11-340 (2) and is subject to a 14 day comment period. Written comments may be submitted to the lead agency at the address below. Comments must be received by June 29, 2016.

APPEALS:

This DNS may be appealed pursuant to the requirements of Section 30.61.300 SCC and Chapter 2.02 SCC. The fourteen (14) day appeal period commences on the date of publication of notice. Any appeal must be addressed to the County Hearing Examiner, accompanied by a filing fee of $500.00, and be filed in writing at the Customer

Support Center on the 2nd Floor, County Administration Building East, Everett, WA. The appeal must be received by June 29, 2016. The appeal must contain the items set forth in 30.71.050(5) SCC as follows:

(a) Facts demonstrating that the person is aggrieved by the decision;

(b) A concise statement identifying each alleged inadequacy in the threshold determination;

(c) The specific relief requested; and

(d) Any other information reasonably necessary to make a decision on appeal.

Please note that failure to file a timely and complete appeal including all the above items shall constitute waiver of all rights to an administrative appeal under county code. In addition to the above requirements, SCC 30.61.305(1) also requires that any person filing an appeal of a threshold determination made pursuant to this chapter shall file with the hearing examiner, within seven days of filing the appeal, a sworn affidavit or declaration demonstrating facts and evidence, that, if proven, would demonstrate that the issuance of the threshold determination was clearly erroneous.

Contact Person: Randy Middaugh

Responsible Official: Barb Mock, Interim Director
Planning and Development Services

Address: County Administration Building East, 2nd Floor
3000 Rockefeller Avenue, M/S 604
Everett, Washington 98201

Signature: HKnight Date: 6-6-16
Howard Knight for Responsible Official

Date Issued: June 15, 2016 ICJ Quett /RRC

DISCLAIMER:

The determination that an environmental impact statement does not have to be filed does not mean there will be no adverse environmental impacts. Snohomish County codes governing noise control, land use performance standards, construction and improvement of county roads, off site road improvement obligations, drainage control, fire protection and building practices will provide substantial mitigation of the aforementioned impacts.

The issuance of this Determination of Nonsignificance should not be interpreted as acceptance or approval of this proposal as presented. Snohomish County reserves the right to deny or approve said proposal subject to conditions if it is determined to be in the best interest of the county and/or necessary for the general health, safety and welfare of the public to do so.

DISTRIBUTION LIST:

Snohomish County Department of Public Works, Environmental Services
Community Transit

Washington State Department of Ecology

	Department of Transportation Department of Fish and Wildlife
Tribes	Tulalip Tribes Natural Resources Environment Dept. Cultural Center Snoqualmie Tribe Environment and Natural Resources Dept.
Utilities	PUD #1 of Snohomish County
Fire District	#4
Snohomish School District	#201
Others	39th Avenue Organization Spadafora Development Little Bear Creek Protection Association
Adjacent Property Owners	Notice of the issuance of this Determination of Nonsignificance This Determination of Nonsignificance has been mailed to property owners of record within 500 feet of the external boundaries of this project.

ATTACHMENTS

1. Environmental Checklist
2. Vicinity Map
3. Ownership & Zoning Map
4. Site Plan

SEPA ENVIRONMENTAL CHECKLIST

Purpose of checklist:

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

Instructions for applicants:

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

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

Instructions for Lead Agencies:

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

Use of checklist for nonproject proposals: [help]

For nonproject proposals (such as ordinances, regulations, plans and programs), complete the applicable parts of sections A and B plus the SUPPLEMENTAL SHEET FOR NONPROJECT ACTIONS (part D). Please completely answer all questions that apply and note that the words "project," "applicant," and "property or site" should be read as "proposal," "proponent," and "affected geographic area," respectively. The lead agency may exclude (for non-projects) questions in Part B - Environmental Elements –that do not contribute meaningfully to the analysis of the proposal.

A. Background [help]

PFN: 16 101983 000 00 SHOR
Moga Back-Channel Reconnection Project

Received - 02/09/2016

1. Name of proposed project, if applicable: [help]
Moga Back-Channel Reconnection Project

2. Name of applicant: [help]
Applicant/Project Sponsor: Snohomish Conservation District
Landowner: Moga Properties, LLC; Owner: Greg Moga

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

Project Sponsor:
Attn: Cindy Dittbrenner
Snohomish Conservation District
528 9st Ave NE Ste A
Lake Stevens, WA 98258

Contact: Cindy Dittbrenner
Phone: 425-377-7005
Email: cindy@snohomishcd.org

Landowner:
Moga Properties LLC
Attn: Greg Moga
Mailing address: 4915 25th Ave NE #204
Seattle, WA 98105
Phone: (312) 925-1820
Email: gmoga@mogainvestments.com

4. Date checklist prepared: [help]
January 11, 2016

5. Agency requesting checklist: [help]
Snohomish County

6. Proposed timing or schedule (including phasing, if applicable): [help]
Construction window: July, 2016 – September, 2016
Riparian planting: October, 2016 – April, 2017
Planting maintenance and monitoring: June, 2017 - Dec., 2019

7. Do you have any plans for future additions, expansion, or further activity related to or connected with this proposal? If yes, explain. [help]
No additional work is planned for the project.

8. List any environmental information you know about that has been prepared, or will be prepared, directly related to this proposal. [help]
Moga Back-Channel Reconnection Project Preliminary (30%) Design Report (Cardno 2015)
Reach Scale Geomorphic Analysis of Hydraulic, Hydrologic, and Sediment conditions in the Snohomish River Between SR 522 and Ebey Slough (R2 Resource Consultants 2015)
Critical Area Study – including Wetland Delineation and Categorization (Snohomish Conservation District 2016)

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

No other proposals directly affecting the property covered by this proposal.

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

Anticipated Permits and agency approvals include:
ESA Consultation – NMFS and USFW - *complete*
Army Corps of Engineers – Section 404 – *in process*
Hydraulic Project Approval (HPA) – WA Department of Fish and Wildlife
Snohomish County Shoreline Conditional Use permit (Shoreline Exemption Type: Restoration - Fish Enhancement)
Snohomish County Land Disturbing Activities Permit (Clearing and Grading)
Snohomish County Flood Hazard Permit

Additional Approvals:
Water Quality Certification 401 – WA Department of Ecology – *in process*
Section 106 Cultural Resources Consultation – lead agency is Army Corps of Engineers - *complete*
Department of Natural Resources - *Not Applicable – DNR determined not on State Owned Aquatic Lands*

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

This project is located on agricultural land adjacent to the Snohomish River at river mile 15.7 near Snohomish, WA. This Salmon Recovery Funding Board grant funded project will reconnect 6.3 acres and 0.71 miles of off-channel habitat to the Snohomish River to benefit threatened Puget Sound Chinook salmon, threatened steelhead, and other species of salmonids.

Project construction will include replacement of two barrier access road crossings with 12 foot diameter round culverts, removal of a foot path barrier crossing (resulting in correction of three fish passage barriers), excavation of 0.55 mile of relic channel, placement of 65 wood structures within the side channel, and planting of five acres of riparian forest.

The side channel is currently acting as an occasional oxbow lake that is inundated only at high flood flows when both the dike is overtopped and water enters from the downstream end. Because it is disconnected during normal flow, the oxbow is likely not benefiting Chinook salmon and may strand fish. By removing the blockages at the downstream end, the channel will be re-connected with the mainstem river to serve as valuable off-channel refuge habitat. While our long-term goal for the site will be to open the channel up at both ends, opening it up to exchange from the river at the downstream end is predicted to provide significant Chinook habitat gains.

12. Location of the proposal. Give sufficient information for a person to understand the precise location of your proposed project, including a street address, if any, and section, township, and range, if known. If a proposal would occur over a range of area, provide the range or boundaries of the site(s). Provide a legal description, site plan, vicinity map, and topographic map, if reasonably available. While you should submit any plans required by the agency, you are not required to duplicate maps or detailed plans submitted with any permit applications related to this checklist. [help]

The project will take place on agricultural land owned by one landowner (Moga Properties LLC) that is located on the right bank of the Snohomish River in Snohomish County, WA.
The street address is 15106 Short School Rd, Snohomish, WA 98290. The specific Snohomish County parcels on

which the project will occur are 27060600100400, 27060600100700 and portions of 27060500200400 and 27060500200800 (NOTE: A boundary line adjustment for portions of these latter two deeded the area west of Shorts School Rd to Greg Moga on 6/24/2014. Boundary Line Adjustment documents available upon request).
Latitude and Longitude: 47.859143 N lat / -122.076477 W long.
Section Township Range: NE quarter of section 6, Township 27N Range 06E.
See Moga Back-Channel Reconnection Final Design Sheets (Design Sheets; attached) for additional information about location of specific project activities.

B. ENVIRONMENTAL ELEMENTS [help]

1. Earth [help]

a. General description of the site: [help]

(circle one): (Flat), rolling, hilly, steep slopes, mountainous, other _____
The site is generally low-gradient floodplain although there is a steep slope along the northeastern edge of the project site.

b. What is the steepest slope on the site (approximate percent slope)? [help]
Along the eastern border of the construction zone, there is a 25-40% slope. No construction activities, however, will occur on the slope.

c. What general types of soils are found on the site (for example, clay, sand, gravel, peat, muck)? If you know the classification of agricultural soils, specify them and note any agricultural land of long-term commercial significance and whether the proposal results in removing any of these soils. [help]
The project is located within the Snohomish River floodplain and the project area includes a relict side channel and two wetland complexes; as such, the site is characterized by a variety of soils typical of floodplain and wetlands including clays, sand/gravel/cobble riverwash, peat and muck.
According to USDA's Web Soil Survey, the site soils include Puget Silty Clay Loam, Sultan Silt Loam, and Tokul-Ogarty-Rock outcrop complex 0 – 25% slopes on the hillside and top of slope. A detailed soil investigation has not been completed for the site.

d. Are there surface indications or history of unstable soils in the immediate vicinity? If so, describe. [help]
There are no indications of unstable soils in the immediate vicinity.

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

Restoration of relic side-channel to re-connect wetlands with river at normal flows will include:
- Excavation of 7,412 cubic yards of material from 1.25 acres of channels
- Placement of 7,412 cubic yards of material on adjacent agricultural field spread to a depth of less than 6 inches over 0.34 acres.
- Placement of 57 cubic yards of large woody debris and 30 cubic yards of woody slash material for habitat within side-channel

Removal of barriers and installation of two 12 foot diameter culverts along side-channel will include:
- Temporary Excavation and Backfill of approximately 1,700 cubic yards to create trenches for culverts
- Placement of 120 cubic yards of subgrade bedding material to place culverts upon

- Placement of 1200 cubic yards of suitable excavated native material as backfill around culverts
- Placement of 120 cubic yards of streambed material inside culverts
- Spread remaining 500 cubic yards of excavated alluvium in agricultural field to a depth less than 6 inches.
- Subgrade bedding and streambed material will be sourced and hauled in from a quarry and will meet Construction and WSDOT specifications.

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

Approximately 0.55 miles of newly restored side-channel (1.25 acres) will be excavated during a one month construction period. Construction will occur during the summer low flow period (July – September, 2016) when little to no water is in the channel. Potential erosion would be expected as a result of precipitation only. Temporary sediment and erosion control measures will be installed during and after construction (see question 1h).

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

0%. No impervious surfaces will be added.

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

The contractor will be responsible for implementing all temporary erosion control measures. These measures will be in accordance with the project Specifications, Snohomish County regulations and Washington State Department of Transportation (WSDOT) standards. The contractor will submit and adhere to a diversion and dewatering plan approved by the construction engineer and the Snohomish Conservation District should groundwater inflow or flow from the wetland occur.

Turbidity will be monitored on a frequent basis by project management and inspection staff onsite. Turbidity amounts in excess of the permitted amount and/or durations will cause work to be stopped until improved practices are in effect and the problems controlled.

Upon completion of the excavation, long-term erosion control measures will be put into effect. These include erosion control fabric, grass seed, and straw on bare ground, and replanting native trees and shrubs along channel and riparian zone.

2. Air [help]

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

Small and medium sized excavators along with dump trucks will be used during construction, approximately one month. Upon completion of the construction, no emissions will be generated.

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

NA

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

If exposed soils are at high risk of becoming airborne during construction due to excessive winds, soils will be sprayed with water or covered with tarps following WSDOT specifications.

3. **Water** [help]

a. Surface Water:

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

The project will re-connect a relict side-channel and associated wetlands with the Snohomish River at RM 15.7 at normal flows. All restoration construction activities will occur in the side-channel, and not in the mainstem river.

There are currently a series of wetland ponds (Ponds 1 and 2 in Moga Back Channel Reconnection Project Design Sheets attached) along the relict side-channel that are connected to the river only at high flood flows. Water overtops the Crabbs/Moga dike at the upstream end of the property and water backs up through depressions in the agricultural field at the downstream end. Water that enters these wetland ponds during flood flows is then backed up by the barrier crossing that is effectively acting as a dam, keeping water levels artificially high. These flow dynamics create conditions for invasive fish species to thrive and to strand juvenile salmonids that are not able to escape during normal flows. There is a small channel that flows from the barrier crossing to the river, but the majority of water that enters the ponds during high water floods through the agricultural field. Therefore, from the barrier downstream, the side-channel does not provide sufficient habitat for juvenile or adult salmonids in its current condition.

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

Yes, work will occur adjacent to existing wetland ponds and within the relic side-channel that has been largely silted in due to lack of flow exchange with the Snohomish River (Moga Back-Channel Reconnection Project Design Sheets (Design Sheets).
The project will include the following elements:

- Install site isolation and temporary erosion and sediment control measures as indicated on the Design Sheets and Construction Specifications and required turbidity monitoring at the downstream end of project area (on side channel near mouth and/or at confluence with Snohomish River).
- Complete construction survey, demark grading limits, and complete vegetation clearing and trimming as described in the Design Sheets and Construction Specifications.
- As described in the Design Sheets and Construction Specifications, isolate or de-water and de-fish construction site.
- Excavate and enhance 0.55 miles of relic off-channel habitat. Use excavators to complete grading for new channel depths, slopes, and widths described and complete large wood structure installation as depicted and described in the Design Sheets for each channel segment. Place 57 cubic yards of large woody material (logs, branches, rootwads) and 30 cubic yards of woody slash along channels.
- Install two 12 ft wide round steel culverts at locations indicated in Design Sheets (pgs 4, 5, and 10).
  Culvert 1: install 80 ft long by 12 ft wide round steel culvert
  Culvert 2: install 54 ft long by 12 ft wide round steel culvert
- Excavate floodplain channel at mouth of northeast and west channel segments to elevations on Design Sheets to connect channel to Snohomish River.
- Rehabilitate and revegetate (as needed) disposal sites, hauling routes, staging areas, and all excavated and disturbed soils.
- Complete 5 acres native species riparian planting as described in the Design Sheets (pg 6). Activities will include removal/control of non-native, invasive vegetation (Himalayan blackberry, knotweed species) using mechanical (hand-held brushcutters, hand tools) and

chemical (backpack sprayers) methods. Install livestakes (cuttings), bare root, and container stock.

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

Restoration of relic side-channel to re-connect wetlands with river at normal flows will include:

- Excavation of 7,412 cubic yards of material from 1.25 acres of channels
- Placement of 57 cubic yards of large woody debris and 30 cubic yards of woody slash material for habitat within side-channel
- Excavated material will be spread in the adjacent agricultural field (7,412 cubic yards)

Removal of fish passage barriers and installation of two 12 foot diameter culverts along side-channel will include:

- Excavation of approximately 1,700 cubic yards to create trenches for culverts
- Placement of 120 cubic yards of subgrade bedding material to place culverts upon
- Placement of 1200 cubic yards of suitable excavated native material as backfill around culverts
- Placement of 120 cubic yards of streambed material inside culverts
- Subgrade bedding and streambed material will be sourced and hauled in from a quarry and will meet Construction and WSDOT specifications
- Any excess excavated soil (~500 cubic yards) will be spread in adjacent agricultural field as per Design Sheets.

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

As this project will be constructed during summer low flow, little surface water diversion, if any, is anticipated. The contractor will be required to submit a diversion and de-watering plan to the construction engineer and Snohomish Conservation District for approvel prior to construction. De-watering will likely involve de-fishing and then pumping water to be dispursed in adjacent vegetated riparian zones or agricultural fields.

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

Yes, this project does lie within the 100-year floodplain (Design Sheets, pg 3).

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

No.

b. Ground Water:

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

No.

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

NA

c. Water runoff (including stormwater):

1) Describe the source of runoff (including storm water) and method of collection and disposal, if any (include quantities, if known). Where will this water flow? Will this water flow into other waters? If so, describe. [help]

NA

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

Excess sediment may enter surface waters upon completion of project while vegetation is establishing but this will be controlled by erosion control measures described above (fabric, grass seed, straw).

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

Yes, flow and drainage patterns will be significantly altered from current conditions to more closely resemble historic patterns and improve salmonid habitat. The wetland pond complexes (Ponds 1 and 2 in Design Sheets) are currently disconnected at normal flows and accumulate water only during flood flows. The barrier crossings act as dams holding water back and keeping water levels artificially high. These flow dynamics create conditions for invasive fish species to thrive and strand juvenile salmonids that are not able to escape during normal flows. The project will re-connect this channel and wetland ponds with the river at normal flows, allowing for more continuous flushing and providing valuable off-channel rearing habitat for juvenile salmonids.

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

NA. The purpose of the project is to alter drainage patterns to benefit threatened salmonid species.

4. **Plants** [help]

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

_X_ deciduous tree: alder, maple, aspen, other
_X_ evergreen tree: fir, cedar, pine, other
_X_ shrubs
_X_ grass
____ pasture
_X_ crop or grain
____ Orchards, vineyards or other permanent crops.
_X_ 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? [help]
Existing native vegetation will be protected to the maximum extent possible; existing trees will be left in place and trimmed only to the extent necessary for construction unless noted in Design Sheets; any trees removed will be used in the large wood structures in LWD structures or as racking material. The area of disturbance for the channels will be approximately 4 acres total with most of that being reed canary grass and other invasives.

Invasive vegetation (reed canary grass, himilayan blackberry, and knotweed) within the riparian planting zone will be removed and replaced with native trees and shrubs. A total of 5 acres will be restored with native plantings.

c. List threatened and endangered species known to be on or near the site. [help]
No threatened or endangerd plant species have been detected on the site.

d. Proposed landscaping, use of native plants, or other measures to preserve or enhance vegetation on the site, if any: [help]
For much of the existing side-channel, the riparian buffer is an intact cottonwood gallery ranging between 200 and 500 feet wide. The Conservation District will enhance riparian forest conditions in this zone where necessary to include removal of Japanese knotweed and blackberry vegetation and understory planting of native conifer species and other native plant species as appropriate. The construction portion of the project below the barrier replacement will include planting of riparian forest all along newly constructed channels. The buffer width will be a minimum of 100 ft from the edge of the channel. Total riparian planting area is estimated at five (5) acres. Page 6 of the Design Sheets shows the planting area zones and proposed native wetland plants, shrubs, and trees that will be installed.

e. List all noxious weeds and invasive species known to be on or near the site. [help]
Invasive species on the site include:
Japanese knotweed and bohemian knotweed (*Polygonum cuspidatum* and *P. x bohemicum*)
Himilayan blackberry (*Rubus armeniacus*)
Reed canary grass (*Phalaris arundinacea*)

Invasive vegetation within the project area will be controlled using integrated pest management techniques to ensure the success of native plantings.

5. **Animals** [help]

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

- Bald eagle
- American Beaver
- River otter
- Northwest salamander egg sacks
- Chinook, pink, chum, and coho salmon in the mainstem Snohomish River adjacent to project area
- Cutthroat trout, bull trout and steelhead in the mainstem Snohomish River adjacent to the project site

b. List any threatened and endangered species known to be on or near the site. [help]
Puget Sound Chinook (threatened) is expected to benefit from this project through creation of off-channel rearing habitat. It is possible that juvenile Chinook were trapped in the existing wetland ponds during flood flows and will be returned to the river during de-fishing prior to construction.

c. Is the site part of a migration route? If so, explain. [help]
The site is adjacent to the Snohomish River where adult salmon migrate to spawn and juvenile salmonids migrate to the sea. This site is on the west coast waterfowl migration route known as the Pacific Flyway. It is unknown if the site is used by migratory insects or terrestrial animals.

d. Proposed measures to preserve or enhance wildlife, if any: [help]
The *Snohomish River Basin Salmon Conservation Plan* (2005) identifies rearing habitat in the mainstem Snohomish River as one of the highest priority limiting factors for recovery of threatened Chinook salmon. The proposed project will directly address this limitation by providing an additional 6.3 acres of off-channel rearing habitat and 0.55 miles of new channels to provide a total of 0.71 miles of off-channel habitat re-connected to the Snohomish River. These ponded area calculations are for a design river elevation of 16.5 feet, which is expected during winter rearing and springtime snowmelt periods.

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

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

a. What kinds of energy (electric, natural gas, oil, wood stove, solar) will be used to meet the completed project's energy needs? Describe whether it will be used for heating, manufacturing, etc. [help]
There will be no long-term energy needs associated with this restoration project.
During construction, transportation to and from work site, hauling, and construction equipment will consume fuel. The construction period will be approximately one month long.

b. Would your project affect the potential use of solar energy by adjacent properties? If so, generally describe. [help]
Planted trees are not expected to impact the use of solar energy by a potential future home site at the top of the slope (no residences currently exist).

c. What kinds of energy conservation features are included in the plans of this proposal? List other proposed measures to reduce or control energy impacts, if any: [help]
Excavated materials will be spread on site to greatly reduce fuel costs associated with hauling and disposal.

7. **Environmental Health** [help]

a. Are there any environmental health hazards, including exposure to toxic chemicals, risk of fire and explosion, spill, or hazardous waste, that could occur as a result of this proposal? If so, describe. [help]

1) Describe any known or possible contamination at the site from present or past uses. [help]
This site has been in agricultural use and no known contamination exists.

2) Describe existing hazardous chemicals/conditions that might affect project development and design. This includes underground hazardous liquid and gas transmission pipelines located within the project area and in the vicinity. [help]
This site has been in agricultural use and there are no known hazardous conditions or underground structures in the project area. The residence was located on the top of the slope, far from the project

area, and has since been removed. Any contamination or underground facilities associated with the residence should not impact project work in the floodplain.

3) Describe any toxic or hazardous chemicals that might be stored, used, or produced during the project's development or construction, or at any time during the operating life of the project. [help]

During project construction, hazardous chemicals associated with heavy equipment will be present on site. The contractor is responsible to ensure that no petroleum products, hydraulic fluid, chemicals, or other toxic materials are allowed to enter or leach into the river or wetlands.

Integrated pest management practices will be used to remove and control invasive species in the riparian planting areas. Herbicide use will be minimized and applied by licensed pesticide applicators. Herbicides will be selected that are approved for use in aquatic areas. Herbicides will not be stored on site.

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

The contractor will submit a stormwater pollution prevention plan (SWPPP) and spill prevention, control and countermeasures plan (SPCC) to the construction engineer and Snohomish Conservation District for approval.

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

NA

b. Noise [help]

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

The project is located in a rural and agricultural area; traffic noise is low and farming noise from small and medium farming equipment is light but present. Surrounding sources of noise are not expected to affect the project.

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

During the approximate one month of side-channel and crossing construction, daily moderate construction noise will be generated by multiple pieces of small and medium sized equipment including excavators, dump trucks, and hand-held power tools and equipment such as chainsaws, compactors, etc. These noise impacts are expected to minimally impact the surrounding three landowners. Equipment will be operated within reasonable (daylight) hours as described in the Construction specifications (likely 8 am – 6 pm). Construction will increase traffic noise by several cars per day (for construction workers and project inspectors/engineers). Hauling materials and equipment on-site and off-site will increase traffic noise on the rural road temporarily and for short durations including:

- Mobilization and demobilization (deliver equipment)
- Delivery of materials including culverts, bedding and streambed sediment for culverts, and LWD and slash material

- Note: excavated material will be disposed of on-site to minimize traffic noise

Noise associated with riparian planting will be minimal and is expected to only affect the project site; noise may be generated by hand-held brushcutters, power augers, and small ATV and trucks to transport plants around site. This noise will be similar to or lower in intensity and duration to farming noise on and adjacent to the project.

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

Excavated material will be disposed of on-site to minimize hauling traffic noise. As much as feasible, materials (suitable soil, cleared vegetation) from on-site will be used for backfill, LWD and slash to reduce the number of trucks/trips needed to haul materials to the site. Construction noise will be limited to daylight hours (generally 8 am – 6 pm).

8. Land and Shoreline Use [help]

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

The project is located on agricultural land that is currently used to produce grass/hay. Previous crops included corn and hay. Adjacent properties are used as a combination of rural residential (primary and rental residences) and active farming. Crops include corn, hay, and other crops. Livestock may be raised on adjacent properties, but if present, livestock populations are low (few animals – few horses or a couple of beef or dairy cows). These land uses have occurred for many years.

The proposed project will not affect adjacent land use. The project activities may improve agricultural production on the site by improving access.

b. Has the project site been used as working farmlands or working forest lands? If so, describe. How much agricultural or forest land of long-term commercial significance will be converted to other uses as a result of the proposal, if any? If resource lands have not been designated, how many acres in farmland or forest land tax status will be converted to nonfarm or nonforest use? [help]

The project site is farmed and was farmed in the past. The proposed project will not significantly reduce farming acreage on the property. The project is likely to improve agricultural productivity by removing stream crossing barriers that impound water and by providing deepened channels through which winter river flows can move (instead of through the field). The newly added stream crossings (see Design Sheets) will improve farming access to the floodplain field.

The 5 acre riparian forest buffer planting and side channel excavation will impact a small percentage of total acreage available on the property for farming; some of the 5 acres of riparian area is currently vegetated with cottonwood and invasive plant species, and much of the side channel areas to be excavated are seasonally flooded and infeasible for farming most or all of the year.

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

The project will not impact adjacent farm and forest land operations.

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

There is one agricultural outbuilding and a temporary motor home/trailer that is not inhabited permanently. The agricultural outbuilding is an old wood barn that was moved onto the property from New England/East coast. No

historic structures are documented on the property. A dirt/gravel agricultural road crosses the side channel to provide access to the floodplain agricultural field; surveys did not locate a culvert beneath the road. There is a 12in culvert near the mouth of the side channel (approximately 50 – 80 feet upstream of mouth) where a footpath crosses the side-channel that will be removed as part of the project.

A residence on the property was demolished and removed from the property.

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

No.

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

The site is zoned Resource-A-10 (Agriculture-10 acres). The project will not change current zoning

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

The Comprehensive Plan designation of the site is Riverway Commercial Farmland (RCF – Snohomish River) (Snohomish County Comprehensive Plan, July 2015). The project will not result in a change of designation

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

The project is located within Natural Shoreline Environment and Resource Shoreline Environment designations.

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

The project site is located within critical areas for freshwater shoreline, streams (fish-salmon and non-fish bearing seasonal and perennial), and wetlands. The wetlands have been delineated but required buffers widths have not been identified.

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

Zero.

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

Zero.

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

NA.

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

The project is compatible with existing and projected future land use. The improved stream crossing and addition of a second stream crossing will improve access to the agricultural field.

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

The project will not negatively impact nearby agricultural lands. Providing additional channel length (0.55 miles, 1.25 acres) and improved riparian zone health (5 acres of planting) will, however, provide additional flood storage capacity.

9. **Housing** [help]

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

None.

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

None.

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

NA.

10. **Aesthetics** [help]

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

NA.

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

No views will be obstructed; the planted riparian buffer is not within the line of sight of any existing structures.

b. Proposed measures to reduce or control aesthetic impacts, if any: [help]

NA.

11. **Light and Glare** [help]

a. What type of light or glare will the proposal produce? What time of day would it mainly occur? [help]

NA.

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

No.

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

None.

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

NA.

12. **Recreation** [help]

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

Public recreational activities are not present on the project site. Recreational fishing, boating/floating/swimming is allowed in the Snohomish River although no public access exists from the project site. The nearest public access point is at the Bob Heirman Wildlife Preserve at Thomas' Eddy which is immediately across the river from the project site; Lord Hill Regional Park is less than two miles

upstream of the project site. These public areas provide additional recreational opportunities including hiking, picnicking, and wildlife viewing; Lord Hill allows horseback riding and mountain biking as well.

b. Would the proposed project displace any existing recreational uses? If so, describe. [help]
No.

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

13. **Historic and cultural preservation** [help]

a. Are there any buildings, structures, or sites, located on or near the site that are over 45 years old listed in or eligible for listing in national, state, or local preservation registers located on or near the site? If so, specifically describe. [help]
No. A search in the Information System for Architectural and Archeological Records Data (WISAARD) database indicated that a historic property inventory was completed in July 2011 and identified a structure of unknown age (residence). This residence was demolished in 2014/2015. An old barn was relocated onto the property from New England; the project will not impact this structure. No historic register properties are located on the project site.

b. Are there any landmarks, features, or other evidence of Indian or historic use or occupation? This may include human burials or old cemeteries. Are there any material evidence, artifacts, or areas of cultural importance on or near the site? Please list any professional studies conducted at the site to identify such resources. [help]
None known features or evidence of Native American or historic use. No known archeological studies for the project site.

c. Describe the methods used to assess the potential impacts to cultural and historic resources on or near the project site. Examples include consultation with tribes and the department of archeology and historic preservation, archaeological surveys, historic maps, GIS data, etc. [help]
The Army Corps of Engineers completed consultation with DAHP and local tribes to satisfy Section 106 requirements. The Snoqualmie Tribe requested a tribal monitor be on-site during construction.

d. Proposed measures to avoid, minimize, or compensate for loss, changes to, and disturbance to resources. Please include plans for the above and any permits that may be required. [help]
The Conservation District completed and will follow an inadvertent discovery plan that follows DAHP's recordation guidelines and WSDOT guidelines. The Conservation District worked with the Army Corps of Engineers and DAHP to satisfy Section 106 requirements (completed). The Snoqualmie Tribe requested a tribal monitor be on-site during construction and no other responses were received.

14. **Transportation** [help]

a. Identify public streets and highways serving the site or affected geographic area and describe proposed access to the existing street system. Show on site plans, if any. [help]
The project site is accessible from a County-owned road (Short School Rd) and a private driveway/farming road (see Design Sheets).

No public streets or highways will be directly impacted by the project except by limited construction transit (equipment mobilization/demobilization, materials delivery, and daily passenger vehicles for

project worker transport to and from the site). Traffic impacts are expected to be minimal; the typical travel route to the project site will take place on the following roads: Interstate 5 (minimal travel for project work), State Route (SR) 9, US Route 2, and several city (City of Snohomish) and county (Snohomish County) roads including 92nd St SE, Lincoln Ave, Old Snohomish Monroe Rd, and Treosti Rd.

b. Is the site or affected geographic area currently served by public transit? If so, generally describe. If not, what is the approximate distance to the nearest transit stop? [help]

No.

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

None. Construction equipment and personal vehicle parking will be temporary.

d. Will the proposal require any new or improvements to existing roads, streets, pedestrian, bicycle or state transportation facilities, not including driveways? If so, generally describe (indicate whether public or private). [help]

The project includes improvements to the private farming access road to benefit fish passage and water flow. One fish passage barrier (an earthen footpath) will be removed and two fish passage barriers created by fill from the farm access road will be replaced with 12 ft diameter culverts.

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

No.

f. How many vehicular trips per day would be generated by the completed project or proposal? If known, indicate when peak volumes would occur and what percentage of the volume would be trucks (such as commercial and nonpassenger vehicles). What data or transportation models were used to make these estimates? [help]

During the one month of construction, an estimated three to seven passenger vehicles (cars, SUVs or trucks) will travel to and from the project site daily during the morning commute to the site (6 am – 9 am) and evening commute from the site (4 pm – 7 pm). Mobilization and demobilization (equipment transport to and from the site via commercial trailers) is expected to take two to four days (estimated based on similar projects). Material transport to the site will include gravel and large wood (similar to logging trucks). An estimated 57 cubic yards of large woody debris will be hauled to the site and the additional 30 cubic yards of slash material will be generated on the site during clearing activities. The large wood will be transported by logging trucks and dump trucks/trailers (approximately 3-10 trips total). These estimates are based on experience with similar projects.

Traffic impacts during riparian planting and subsequent maintenance (one to three visits annually during the growing season May through September for three to five years) will be minimal. Riparian planting will take place between October 2016 and April 2017 over four to six weeks. Between one and two passenger vehicles (including crew cab truck) will be used to transport work crew and hand equipement to the project site daily. Approximately 2,500 – 3,500 native plants will be transported to the site using box trucks and covered trailers (estimated 3 to 5 trips). Maintenance travel will involve one to two passenger vehicles traveling to and from the project site for an estimated 10 days each year.

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

Construction and planting traffic is not expected to impact the movement of agricultural or forest products within the area.

h. Proposed measures to reduce or control transportation impacts, if any: [help]

Excavated soils will be used and disposed of on-site to minimize the need for off-site hauling of soil. Heavy equipment will be delivered once to the project site (excepting any required repairs) and stored for the duration of the project to minimize delivery transportation impacts. Riparian work crew will utilize one field truck (six person capacity) for planting and maintenance activities to minimize the number of vehicles driving to the project site.

15. **Public Services** [help]

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

No increased need for public services.

c. Proposed measures to reduce or control direct impacts on public services, if any. [help]

NA.

16. **Utilities** [help]

a. Circle utilities currently available at the site: [help]

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

Although utility services exist on the property, utilities are not needed for the operation or maintenance of this project and utilities will not be impacted during the project. Utilities currently available at the site are known utilities; additional utilities may be present but are not known at this time

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. [help]

No utilities are needed for this project.

C. Signature [help]

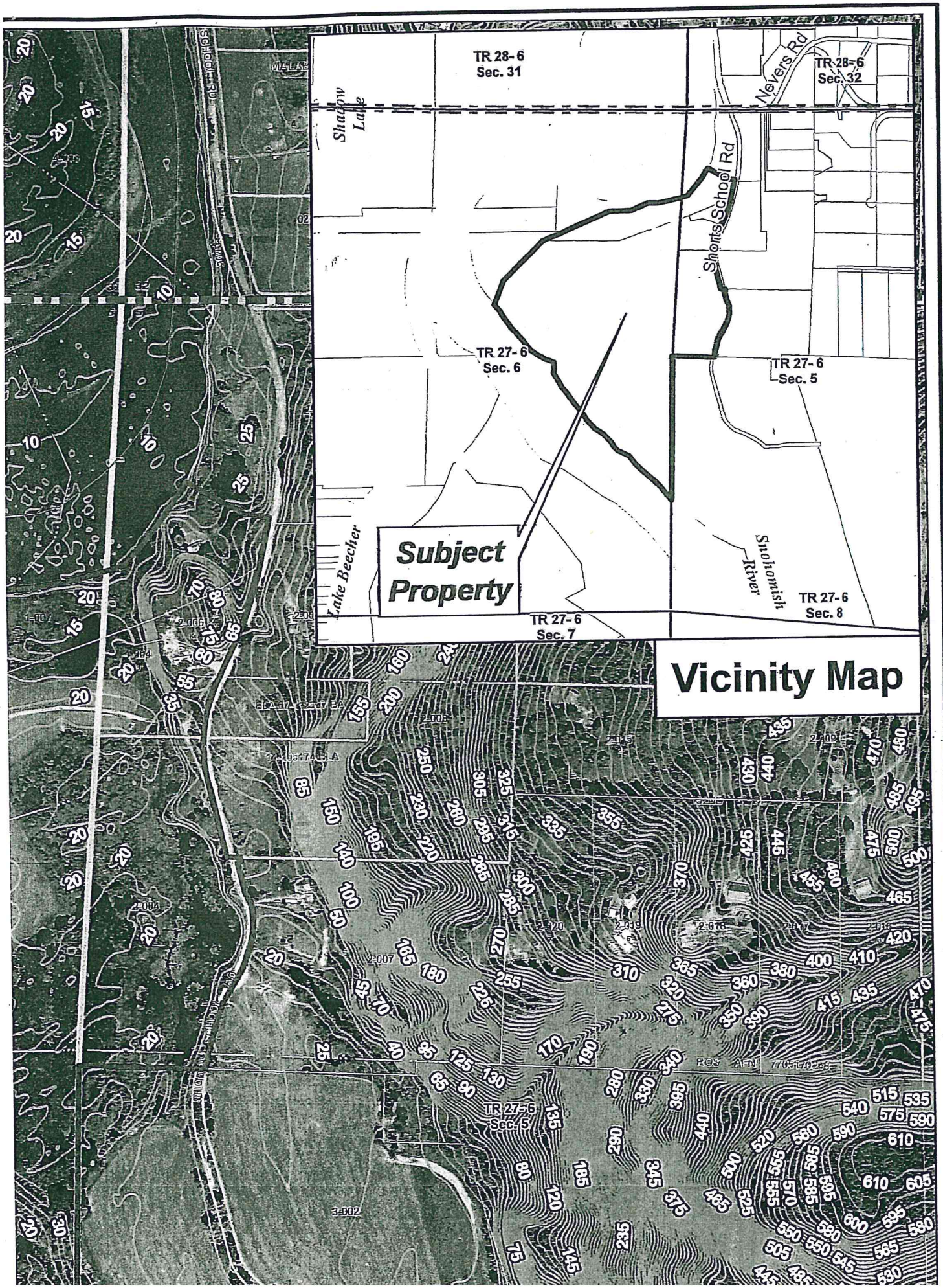
The above answers are true and complete to the best of my knowledge. I understand that the lead agency is relying on them to make its decision.

Signature: Cindy DiHbrenner

Name of signee Cindy DiHbrenner

Position and Agency/Organization Program Mgr., Snohomish CD

Date Submitted: 2-9-16


TR 28-6
Sec. 31
TR 28-6
Sec. 32
Nevers Rd
Shadow
Lake
Shorts School Rd
TR 27-6
Sec. 6
TR 27-6
Sec. 5
Subject
Property
Lake Beecher
Snohomish
River
TR 27-6
Sec. 8
TR 27-6
Sec. 7
Vicinity Map
TR 27-6
Sec. 5

16-101983-LDA Moga Back-Channel Reconnet Project - NE

Township: 27 Range: 6 Section: 5

Parcels
Selected Parcels
Parcel(s) of Interest
Mailing Radius (1000 feet)
PLSS Grid

N
W E
S

Snohomish County

Application Provided by:
Information Services/GIS
Produced 6/9/2016