Snohomish County Public Works

ENVIRONMENTAL CHECKLIST

Project Number: RR 49241

Purpose of Checklist:

The State Environmental Policy Act (SEPA), Chapter 43.21C RCW, requires all governmental agencies to consider the environmental impacts of a proposal before making decisions. An environmental impact statement (EIS) must be prepared for all proposals with probable significant adverse impacts on the quality of the environment. The purpose of this checklist is to provide information to help you and the agency identify impacts from your proposal (and to reduce or avoid impacts from the proposal, if it can be done) and to help the agency decide whether an EIS is required.

SUMMARY

A. BACKGROUND

1. Name of proposed project:
   South Fork Stillaguamish River Engineered Log Jam

2. Name of applicant:
   Snohomish County Public Works
   Surface Water Management Division

3. Address and phone number of applicant and contact person:
   3000 Rockefeller Avenue, M/S 607
   Everett, WA 98201

   Contact Person: Stephanie Cotton, Senior Environmental Planner
   Transportation and Environmental Services Division
   (425) 388-3488 ext. 4687 or
   stephanie.cotton@snoco.org

4. Date checklist prepared:
   March 1, 2011

5. Agency requesting checklist:
   Snohomish County Public Works
   Transportation and Environmental Services Division

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

The proposed restoration work would be conducted during summer 2011.

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

No other future additions, expansion, or further activities have been identified at this time.

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

Reach Scale Analysis, R2 Resource Consultants for Snohomish County, July 2010
Project Plans, January 2011
Specific Project Information Form, Snohomish County, January 2011
Joint Aquatic Resources Permit Application, Snohomish County, January 2011

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.

Several applications are pending, see #10 for details.

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

The following permits and approvals will be required:

Permit/Approval:	**Required from:**
Section 404 Authorization	**U.S. Army Corps of Engineers**
Endangered Species Act Concurrence	**National Marine Fisheries Service and U.S. Fish and Wildlife Service**
Water Quality Certification and Coastal Zone Management	**WA State Department of Ecology**
NPDES	**WA State Department of Ecology**
Hydraulic Project Approval	**WA State Department of Fish and Wildlife**
Aquatic Lands Lease	**WA State Department of Natural Resources**
Shoreline Exemption	**Snohomish County Planning and Development Services**
Flood hazard permit	**Snohomish County Planning and Development Services**
Land Disturbing Certification	**Snohomish County – Public Works**
Critical Areas Certification	**Snohomish County – Public Works**
Drainage Certification	**Snohomish County – Public Works**

11. Location of proposal:

The project site is located in the South Fork Stillaguamish River and a side channel, near the city of Arlington, situated in Section 1, Township 31N, Range 5E, WM of Snohomish County, WA.

12. Give a brief, complete description of your proposal, including the proposed uses and the size of the project and site.

Snohomish County Public Works received a grant from the State Salmon Recovery Funding Board and proposes to construct two engineered log jams on the South Fork Stillaguamish River, near the city of Arlington. The log jams will divert some of the river flow in order to restore a side channel that has filled in with sediments. The side channel is important refuge and rearing habitat for juvenile salmon. Other project elements to facilitate the side channel restoration include:

- **Excavating two pilot channels at either end of the side channel to direct flows from the South Fork Stillaguamish River into the side channel**
- **Removing encroaching vegetation within the side channel to increase flow paths**
- **Installing a series of flood fences: 1) on the banks of the side channel to trap floating debris and direct current flows away from the banks and 2) at the log jams for scour protection**

B. ENVIRONMENTAL ELEMENTS

1. Earth

a. General description of the site (shown in ***bold*** type): ***flat***, rolling, hilly, steep slopes, mountainous, other.

The project site is generally flat and is located within the South Fork Stillaguamish River floodplain.

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

The steepest slope on the site is approximately 5% percent.

c. What general types of soils are found on the site (for example, clay, sand, gravel, peat, muck)? If you know the classification of agricultural soils, specify them and note any prime farmland.

The soil type that is found within the project area is mapped as Puyallup fine sandy loam. This very deep, well drained soil is found on stream terraces. The soil formed in alluvium of mixed origin.

Typically, the surface layer is dark grayish brown, fine sandy loam about 10 inches thick. The upper part of the underlying material is dark grayish brown and olive brown, fine sandy loam about 20 inches thick. The lower part to a depth of 60 inches or more is dark grayish brown sand. Permeability of this Puyallup soil is moderately rapid. Available water capacity is moderate. Effective rooting depth is 60 inches or more. Runoff is slow, and the hazard of water erosion is slight. Rare periods of flooding occurs from November to April.

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

No

e. Describe the purpose, type, and approximate quantities of any filling or grading proposed. Indicate source of fill.

Excavation for the log jams, pilot channels, and flood fences would total approximately 8,450 cubic yards. Excavation would be performed by a large trackhoe. Material from trenching would be sidecast, the log structures would be installed, and the sidecast material would be used to fill in around the structures. If necessary, a log lattice brace would be used to keep the logs upright. Based on similar projects, shoring for the trenches is not expected to be required.

Fill for the log jams and flood fences would total approximately 8,450 cubic yards. The only fill material would be riverbed gravels and sands from excavating the pilot channels, and the logs buried within the log jams and flood fences. Cut material from excavation would be smoothed around the log structures using a trackhoe bucket.

No excavated material will be removed from the site and no fill material will be imported to the site (approximately 0.7 acres), therefore there will be no net excavation or fill.

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

The project would avoid and minimize impacts primarily through project timing and the use of Temporary Erosion and Sedimentation Control Best Management Practices (BMPs). Construction would occur during the summer months when river flows are low. Installation of the log jams and flood fences will be during the fish window provided by Washington Department of Fish and Wildlife (WDFW). No erosion would result from use of the completed improvements.

g. About what percent of the site will be covered with impervious surfaces after project construction?

No new impervious surfaces would be added to the site.

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

All project activity would be subject to Best Management Practices and would comply with the provisions of all applicable permits. Best Management Practices may include the following:

- **Equipment would access the side channel bar when it is dry—no mechanized equipment will cross live water.**
- **All log structures would be installed when the side channel is dry.**
- **BMPs would be in place to contain any turbid water resulting from trenching or other activity that disturbs the substrate.**

- **Material excavated for trenches and pilot channels would not be removed from the site, but integrated into the logjams and/or spread around the flood fencing to provide channel roughness.**

2. Air

a. What types of emissions to the air would result from the proposal (i.e., dust, automobile odors, and industrial wood smoke) during construction and when the project is completed? If any, generally describe and give approximate quantities if known.

Construction equipment, construction-related activities, and vehicles carrying workers and equipment to and from the site would result in minor, temporary increases in emissions and dust. There would be no increase in emissions once construction is complete.

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

No

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

During construction, equipment emissions would not exceed state and national air quality standards. The project would use only equipment and trucks in optimal operational condition.

3. Water

a. Surface Water

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

The proposal is located in the South Fork Stillaguamish River and a side channel near the city of Arlington, WA.

2) Will the project require any work over, in, or adjacent to (within 200 feet) the described waters? If yes, please describe.

The proposal would require work within the South Fork Stillaguamish River and the side channel.

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.

As described in Section 1e, there will be approximately 8,450 cubic yards of onsite excavation that will be used as fill material onsite. There will be no net excavation or fill, cut and fill will balance out.

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

The proposal would not require any surface water withdrawals or diversions.

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

The entire project area lies within the 100-year floodplain.

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

No waste materials would be discharged to surface waters.

b. Groundwater

1) Will ground water be withdrawn, or will water be discharged to groundwater? If so, describe the type of waste and anticipated volume of discharge.

No water would be withdrawn from or discharged to groundwater.

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.

N/A

c. Water Runoff (including storm water)

1) Describe the source of runoff (including stormwater) 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.

There is an existing access road to the project site. No new runoff or treatment is proposed.

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

No

3) Proposed measures to reduce or control surface, ground, and runoff water impacts, if any:

The project would comply with all applicable regulations, and all appropriate measures would be taken to reduce impacts to surface and ground water runoff. Best management practices would be used during construction.

4. Plants

a. Check types of vegetation found on or in close proximity to the site:

- ☑ deciduous trees:
- ☑ evergreens:
- ☑ shrubs:
- ☑ grasses:
- ☑ pasture
- ☑ wet soil plants:
- ☐ water plants:
- ☐ other types of vegetation:

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

Approximately 2 acres of vegetation growing within the elevated side channel would be removed to facilitate restoration. Cottonwood saplings, to 12 feet tall, would be removed from the side channel and replanted at a downstream island. The remaining vegetation, Japanese knotweed, Pacific willow, and butterfly bush (*Buddleia sp.*) would be disposed of at a County approved site.

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

None is known to be on or adjacent to the project site. If such plant species are found, all project work would comply with the requirements of the Endangered Species Act and other applicable regulations.

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

As described in 4b, cottonwood would be replanted, all other non-native and invasive species will be removed from the site.

5. Animals

a. Circle any birds and animals which have been observed on or near the site or are known to be on or near the site (shown in ***bold*** type):

birds: hawks, heron, eagle, songbirds, other: owls, **ducks**, woodpeckers, **mergansers**
mammals: deer, bear, elk, **beaver**, other: opossum, **raccoon**, **coyote**, **small rodents**, **long-tailed weasel, red fox, river otter**
fish: bass, **salmon, trout,** herring, shellfish, other: **peamouth**
And other species typically found in Puget Sound lowlands

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

Chinook salmon, Puget Sound steelhead, and bull trout are threatened species known to be on the site.

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

Yes. The site is within the Pacific Flyway. Migratory waterfowl can be observed in the greater project vicinity.

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

Project construction would occur primarily during the summer months when rainfall is minimal. This would minimize erosion and prevent sedimentation of surface waters. Additional timing restrictions could also be applied if it is determined that the project could adversely affect eagles and other bird species in the project area.

The proposed restoration project is to enhance in-channel conditions by allowing water to flow through the side channel.

6. Energy and Natural Resources

a. What kinds of energy (electric, natural gas, oil, wood stove, solar) will be used to meet the completed project's energy needs? Describe whether it will be used for heating, manufacturing, etc.

No changes in energy use would result from the completed proposal. No energy is needed to meet the completed project's needs. However, during construction minor amounts of fuel would be used by construction equipment during site grading and paving activity.

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

No

c. What kinds of energy conservation features are included in the plans of this proposal? List other proposed measures to reduce or control energy impacts, if any:

N/A

7. Environmental Health

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

No potentially hazardous materials have been identified at or in proximity to the project site. Fuel spills and other construction equipment fluids could potentially occur during construction.

1) Describe special emergency services that might be required.

Emergency response vehicles may be required in the event of a construction accident. The completed project would not require any additional emergency services.

2) Proposed measures to reduce or control environmental health hazards, if any:

Spill control and clean-up material would be staged onsite. The crew leader or other designated person would have a spill control plan and be trained in spill prevention and clean up. All equipment would be well maintained and in good repair to prevent the loss of any petroleum products. Vegetable oil would be used in hydraulic lines of equipment. Refueling and vehicle maintenance would generally occur off-site.

b. Noise

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

No noise in the area would affect the proposal.

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.

During construction (short-term) there would be increased noise levels generated by heavy equipment. These noise levels are likely to exceed existing background noise levels associated with surrounding residential properties. No increase in noise levels would be generated on a long-term basis from the proposal. Construction would occur during the weekday in daylight hours.

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

None

8. Land and Shoreline Use

a. What is the current use of the site and adjacent properties?

The site is the South Fork Stillaguamish River and a side channel. The County has a conservation easement from private property owners to maintain the property as a salmon habitat restoration project. Adjacent properties are agricultural lands, with farming and pasture and proposed sport fields by the city of Arlington.

b. Has the site been used for agriculture? If so, describe.

In the past, the site has been used for agriculture. The adjacent properties are farms and agricultural lands.

c. Describe any structures on the site.

No structures are currently above the ground surface of the project site. The Williams Pipeline, a large natural gas pipeline, runs underground approximately two hundred yards west of the project area.

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

No structures would be demolished.

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

The current zoning classification is Agriculture – 10 acre.

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

The current comprehensive plan designation is Urban Horticulture (UHORT).

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

The current shoreline designation is Conservancy. Under RCW 90.58.147 qualifying projects can be exempted from substantial development permits if they are designed to improve fish or wildlife habitat or fish passage. The project will apply for a shoreline exemption.

h. Has any part of the site been classified as an "environmentally sensitive" area? If so, specify.

No

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

None

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

None

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

N/A

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

N/A

9. Housing

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

None

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

None

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

N/A

10. Aesthetics

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

There are no proposed structures associated with this proposal.

b. What view in the immediate vicinity would be altered or obstructed?

No views would be altered or obstructed.

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

N/A

11. Light and Glare

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

No light or glare is associated with this proposal.

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

N/A

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

Existing off-site sources of light or glare would not affect the proposal.

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

No light or glare impacts are anticipated as a result of either project construction or completion. No mitigation is proposed.

12. Recreation

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

Swimming, fishing, and boating occurs on the South Fork Stillaguamish River in this area. Twin Rivers Park on SR 530 is approximately one mile downstream from the project site and River Meadows Park on Jordan Road is approximately two miles upstream from the project site.

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

The proposal would not displace any existing recreational uses.

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

No impacts to recreation are anticipated as a result of either project construction or completion. No mitigation is proposed.

13. Historic and Cultural Preservation

a. Are there any places or objects listed on, or proposed for, national, state, or local preservation registers known to be on or next to this site? If so, generally describe.

This site was screened by Public Works for proximity to known archaeological and cultural sites. There are no known recorded sites located where potential ground disturbance activities are anticipated.

b. Generally describe any landmarks or evidence of historic, archaeological, scientific, or cultural importance known to be on or next to the site.

None have been identified.

c. Proposed measure to reduce or control impacts, if any:

Although no known archaeological sites are in close proximity to the project, there is still a possibility that cultural resources could be present. If, during construction, cultural resources are found, a systematic collection of artifacts would be made before proceeding with the work, and the Department of Archaeology and Historic Preservation would be contacted. If artifacts are uncovered within the project area, work in that area would be stopped and a professional archaeologist would be brought in to examine them. During construction the contractor would monitor the site for potential cultural materials. If artifacts or human remains are uncovered within the project area, work would stop until a qualified archeologist can make an assessment.

14. Transportation

a. Identify public streets and highways serving the site, and describe proposed access to the existing street system. Show on site plans, if any.

SR 530, Talcott Avenue, and East Gilman Avenue

b. Is the site currently served by public transit? If not, what is the approximate distance to the nearest transit stop?

There are no Community Transit routes in the project area. The closest Community Transit routes are located on SR 530.

c. How many parking spaces would the completed project have? How many would the project eliminate?

None

d. Will the proposal require any new roads or streets, or improvements to existing roads or streets, not including driveways? If so, generally describe (indicate whether public or private)

No

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

No

f. How many vehicular trips per day would be generated by the completed project? If known, indicate when peak volumes would occur.

None

g. Proposed measures to reduce or control transportation impacts, if any:

No impacts to transportation are anticipated as a result of either project construction or completion. No mitigation is proposed.

15. Public Services

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

No additional or increased need for public services would result from this project.

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

No impacts to public services are anticipated as a result of either project construction or completion. No mitigation is proposed.

16. Utilities

a. Utilities currently available at the site:

Existing utilities along East Gilman Avenue include electricity and phone lines to local residences. The Williams Pipeline, a large natural gas pipeline, runs underground approximately two hundred yards west of the project site.

b. Describe the utilities that are proposed for the project, the utility providing the service, and the general construction activities on the site or in the immediate vicinity which might be needed.

The project proposes no new utilities.

C. SIGNATURE

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

Signature: Stephanie Cotton Date: 3/1/11

Stephanie Cotton, Senior Environmental Planner