

**APPROVED JURISDICTIONAL DETERMINATION FORM**  
**U.S. Army Corps of Engineers**

**SECTION I: BACKGROUND INFORMATION**

**A. REPORT COMPLETION DATE FOR APPROVED JURISDICTIONAL DETERMINATION (JD): 4 December 2008**

**B. DISTRICT OFFICE, FILE NAME, AND NUMBER: Seattle District – Ferndale Public Works, NWS-2008-1292-NO**

**C. PROJECT LOCATION AND BACKGROUND INFORMATION:**

State: WA County/parish/borough: Whatcom City: Ferndale  
Center coordinates of site (lat/long in degree decimal format): Lat. 48.8433391129102° N, Long. -122.608472755732° W.  
Universal Transverse Mercator: Zone 10 N E

Name of nearest waterbody: Schell Creek

Name of nearest Traditional Navigable Water (TNW) into which the aquatic resource flows: Lummi Bay

Name of watershed or Hydrologic Unit Code (HUC): Strait of Georgia, 17110002

- Check if map/diagram of review area and/or potential jurisdictional areas is/are available upon request.  
 Check if other sites (e.g., offsite mitigation sites, disposal sites, etc...) are associated with this action and are recorded on a different JD form.

**D. REVIEW PERFORMED FOR SITE EVALUATION (CHECK ALL THAT APPLY):**

- Office (Desk) Determination. Date: 20 November 2008  
 Field Determination. Date(s):

**SECTION II: SUMMARY OF FINDINGS**

**A. RHA SECTION 10 DETERMINATION OF JURISDICTION.**

There are no “*navigable waters of the U.S.*” within Rivers and Harbors Act (RHA) jurisdiction (as defined by 33 CFR part 329) in the review area. [Required]

- Waters subject to the ebb and flow of the tide.  
 Waters are presently used, or have been used in the past, or may be susceptible for use to transport interstate or foreign commerce.  
Explain:

**B. CWA SECTION 404 DETERMINATION OF JURISDICTION.**

There **Are** “*waters of the U.S.*” within Clean Water Act (CWA) jurisdiction (as defined by 33 CFR part 328) in the review area. [Required]

**1. Waters of the U.S.**

**a. Indicate presence of waters of U.S. in review area (check all that apply):<sup>1</sup>**

- TNWs, including territorial seas  
 Wetlands adjacent to TNWs  
 Relatively permanent waters<sup>2</sup> (RPWs) that flow directly or indirectly into TNWs  
 Non-RPWs that flow directly or indirectly into TNWs  
 Wetlands directly abutting RPWs that flow directly or indirectly into TNWs  
 Wetlands adjacent to but not directly abutting RPWs that flow directly or indirectly into TNWs  
 Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs  
 Impoundments of jurisdictional waters  
 Isolated (interstate or intrastate) waters, including isolated wetlands

**b. Identify (estimate) size of waters of the U.S. in the review area:**

Non-wetland waters: Stream – 3,940 linear feet: 4 feet wide (avg.) – 0.36 acre  
Wetlands: 10.61 acres.

**c. Limits (boundaries) of jurisdiction based on: 1987 Delineation Manual**

Elevation of established OHWM (if known):

**2. Non-regulated waters/wetlands (check if applicable):<sup>3</sup>**

- Potentially jurisdictional waters and/or wetlands were assessed within the review area and determined to be not jurisdictional.  
Explain:

**SECTION III: CWA ANALYSIS**

**A. TNWs AND WETLANDS ADJACENT TO TNWs**

**B. CHARACTERISTICS OF TRIBUTARY (THAT IS NOT A TNW) AND ITS ADJACENT WETLANDS (IF ANY):**

The agencies will assert jurisdiction over non-navigable tributaries of TNWs where the tributaries are “relatively permanent waters” (RPWs), i.e. tributaries that typically flow year-round or have continuous flow at least seasonally (e.g., typically 3 months). A wetland

<sup>1</sup> Boxes checked below shall be supported by completing the appropriate sections in Section III below.

<sup>2</sup> For purposes of this form, an RPW is defined as a tributary that is not a TNW and that typically flows year-round or has continuous flow at least “seasonally” (e.g., typically 3 months).

<sup>3</sup> Supporting documentation is presented in Section III.F.

that directly abuts an RPW is also jurisdictional. If the aquatic resource is not a TNW, but has year-round (perennial) flow, skip to Section III.D.2. If the aquatic resource is a wetland directly abutting a tributary with perennial flow, skip to Section III.D.4.

A wetland that is adjacent to but that does not directly abut an RPW requires a significant nexus evaluation. Corps districts and EPA regions will include in the record any available information that documents the existence of a significant nexus between a relatively permanent tributary that is not perennial (and its adjacent wetlands if any) and a traditional navigable water, even though a significant nexus finding is not required as a matter of law.

If the waterbody<sup>4</sup> is not an RPW, or a wetland directly abutting an RPW, a JD will require additional data to determine if the waterbody has a significant nexus with a TNW. If the tributary has adjacent wetlands, the significant nexus evaluation must consider the tributary in combination with all of its adjacent wetlands. This significant nexus evaluation that combines, for analytical purposes, the tributary and all of its adjacent wetlands is used whether the review area identified in the JD request is the tributary, or its adjacent wetlands, or both. If the JD covers a tributary with adjacent wetlands, complete Section III.B.1 for the tributary, Section III.B.2 for any onsite wetlands, and Section III.B.3 for all wetlands adjacent to that tributary, both onsite and offsite. The determination whether a significant nexus exists is determined in Section III.C below.

**1. Characteristics of non-TNWs that flow directly or indirectly into TNW – Ditches A and B (seasonal RPWs)**

**(i) General Area Conditions:**

Watershed size: 795 **square miles**

Drainage area: 50 **acres**

Average annual rainfall: 34.8

Average annual snowfall: 8.6

**(ii) Physical Characteristics:**

**(a) Relationship with TNW:**

Tributary flows directly into TNW.

Tributary flows through **2** tributaries before entering TNW.

Project waters are **5-10** river miles from TNW.

Project waters are **Pick List** river miles from RPW.

Project waters are **2-5** aerial (straight) miles from TNW.

Project waters are **Pick List** aerial (straight) miles from RPW.

Project waters cross or serve as state boundaries. Explain: .

Identify flow route to TNW<sup>5</sup>: Water from Wetland D flows into Ditch B, which flows 1,580 feet into Ditch A. Water from Wetlands A-C flow into Ditch A, which flows 770 feet eastward into Schell Creek, which flows 0.88 miles before becoming the Red River, which flows 1.58 miles into the Lummi River, which flows 2.76 miles before emptying into Lummi Bay

Tributary stream order, if known: 1.

**(b) General Tributary Characteristics (check all that apply):**

**Tributary is:**  Natural

Artificial (man-made). Explain:

Manipulated (man-altered). Explain: Historic drainages have been channelized and re-routed

**Tributary properties with respect to top of bank (estimate):**

Average width: 5

Average depth: 3

Average side slopes: **2:1**.

**Primary tributary substrate composition (check all that apply):**

Silts

Sands

Concrete

Cobbles

Gravel

Muck

Bedrock

Vegetation. Grasses/ 30% cover:

Other. Explain: .

Tributary condition/stability [e.g., highly eroding, sloughing banks]. Explain: Stable

Presence of run/riffle/pool complexes. Explain: None.

Tributary geometry: **Relatively straight**

Tributary gradient (approximate average slope): 3%

**(c) Flow:**

<sup>4</sup> Note that the Instructional Guidebook contains additional information regarding swales, ditches, washes, and erosional features generally and in the arid West.

<sup>5</sup> Flow route can be described by identifying, e.g., tributary a, which flows through the review area, to flow into tributary b, which then flows into TNW.

Tributary provides for: Seasonal flow  
 Estimate average number of flow events in review area/year: 6  
 Describe flow regime: Tributary has persistent flow from December to May and at other times conveys flows during moderate to heavy rainfall events.  
 Other information on duration and volume: .

Surface flow is: **Pick List**. Characteristics: .

Subsurface flow: **Unknown**. Explain findings: .

Dye (or other) test performed: .

Tributary has (check all that apply):

- Bed and banks
  - OHWM<sup>6</sup> (check all indicators that apply):
    - clear, natural line impressed on the bank
    - changes in the character of soil
    - shelving
    - vegetation matted down, bent, or absent
    - leaf litter disturbed or washed away
    - sediment deposition
    - water staining
    - other (list):
  - the presence of litter and debris
  - destruction of terrestrial vegetation
  - the presence of wrack line
  - sediment sorting
  - scour
  - multiple observed or predicted flow events
  - abrupt change in plant community
- Discontinuous OHWM.<sup>7</sup> Explain: .

If factors other than the OHWM were used to determine lateral extent of CWA jurisdiction (check all that apply):

- High Tide Line indicated by:
  - oil or scum line along shore objects
  - fine shell or debris deposits (foreshore)
  - physical markings/characteristics
  - tidal gauges
  - other (list):
- Mean High Water Mark indicated by:
  - survey to available datum;
  - physical markings;
  - vegetation lines/changes in vegetation types.

**(iii) Chemical Characteristics:**

Characterize tributary (e.g., water color is clear, discolored, oily film; water quality; general watershed characteristics, etc.).  
 Explain: Water is clear during normal to peak flows; stained brown by organics during low flows. Watershed has been heavily developed for agricultural and residential uses.  
 Identify specific pollutants, if known: Petrochemicals (road runoff) and herbicides/pesticides.

**(iv) Biological Characteristics. Channel supports (check all that apply):**

- Riparian corridor. Characteristics (type, average width): Riparian cover is mixed grasses/shrubs.
- Wetland fringe. Characteristics: PEM wetlands abut right bank of Ditch A at SW corner of site .
- Habitat for:
  - Federally Listed species. Explain findings: Puget Sound Chinook identified as using the downstream waters of Schell Ditch for foraging and rearing.
  - Fish/spawn areas. Explain findings: Areas downstream of Ditch A (in Schell Creek) have riffle/pool complexes used by spawning salmonids. Schell Creek contains Essential Fisheries Habitat (Magnuson-Stevens Fishery Conservation and Management Act designation) for coho salmon
  - Other environmentally-sensitive species. Explain findings: .
  - Aquatic/wildlife diversity. Explain findings: Diversity of aquatic species in downstream waters rated moderate to high by WA Department of Fish & Wildlife.

**2. Characteristics of wetlands adjacent to non-TNW that flow directly or indirectly into TNW – Wetlands A, B, and D**

**(i) Physical Characteristics:**

**(a) General Wetland Characteristics:**

Properties:

Wetland size: 0.20 acres

Wetland type. Explain: PEM depressional

Wetland quality. Explain: Wetland A, B, and D are Category III wetlands per Washington State wetland rating System (based on a scale of I to IV, I being the highest functioning)

<sup>6</sup>A natural or man-made discontinuity in the OHWM does not necessarily sever jurisdiction (e.g., where the stream temporarily flows underground, or where the OHWM has been removed by development or agricultural practices). Where there is a break in the OHWM that is unrelated to the waterbody's flow regime (e.g., flow over a rock outcrop or through a culvert), the agencies will look for indicators of flow above and below the break.

<sup>7</sup>Ibid.

Project wetlands cross or serve as state boundaries. Explain:

(b) General Flow Relationship with Non-TNW:

Flow is: **Intermittent flow**. Explain: Wetlands outflow into seasonal RPWs during annual rain events.

Surface flow is: **Pick List**

Characteristics:

Subsurface flow: **Unknown**. Explain findings:

Dye (or other) test performed:

(c) Wetland Adjacency Determination with Non-TNW:

Directly abutting

Not directly abutting

Discrete wetland hydrologic connection. Explain: See additional information section.

Ecological connection. Explain:

Separated by berm/barrier. Explain:

(d) Proximity (Relationship) to TNW

Project wetlands are **5-10** river miles from TNW.

Project waters are **2-5** aerial (straight) miles from TNW.

Flow is from: **Wetland to navigable waters**.

Estimate approximate location of wetland as within the **100 - 500-year** floodplain.

(ii) **Chemical Characteristics:**

Characterize wetland system (e.g., water color is clear, brown, oil film on surface; water quality; general watershed characteristics; etc.). Explain: Water flowing from wetlands is clear, general water quality is good, watershed has been extensively developed for agricultural and residential uses, downstream waters of Schell Creek are not on the WA State 303(d) list.

Identify specific pollutants, if known: herbicides, fertilizers.

(iii) **Biological Characteristics. Wetland supports (check all that apply):**

Riparian buffer. Characteristics (type, average width): Emergent (herbaceous), 10-20 feet.

Vegetation type/percent cover. Explain: Emergent (grass species) 75% cover; scrub shrub 25% cover.

Habitat for:

Federally Listed species. Explain findings:

Fish/spawn areas. Explain findings:

Other environmentally-sensitive species. Explain findings:

Aquatic/wildlife diversity. Explain findings:

3. **Characteristics of all wetlands adjacent to the tributary (if any)**

All wetland(s) being considered in the cumulative analysis: **4**

Approximately 10.61 acres in total are being considered in the cumulative analysis.

For each wetland, specify the following:

<u>Wetland</u>	<u>Directly abuts? (Y/N)</u>	<u>Size (in acres)</u>
A	N	0.16
B	N	0.004
C*	Y	10.40
D	N	0.04

\* Extends offsite

Summarize overall biological, chemical and physical functions being performed: see Section C below for summary.

**C. SIGNIFICANT NEXUS DETERMINATION**

A significant nexus analysis will assess the flow characteristics and functions of the tributary itself and the functions performed by any wetlands adjacent to the tributary to determine if they significantly affect the chemical, physical, and biological integrity of a TNW. For each of the following situations, a significant nexus exists if the tributary, in combination with all of its adjacent wetlands, has more than a speculative or insubstantial effect on the chemical, physical and/or biological integrity of a TNW. Considerations when evaluating significant nexus include, but are not limited to the volume, duration, and frequency of the flow of water in the tributary and its

proximity to a TNW, and the functions performed by the tributary and all its adjacent wetlands. It is not appropriate to determine significant nexus based solely on any specific threshold of distance (e.g. between a tributary and its adjacent wetland or between a tributary and the TNW). Similarly, the fact an adjacent wetland lies within or outside of a floodplain is not solely determinative of significant nexus.

**Draw connections between the features documented and the effects on the TNW, as identified in the *Rapanos* Guidance and discussed in the Instructional Guidebook. Factors to consider include, for example:**

- Does the tributary, in combination with its adjacent wetlands (if any), have the capacity to carry pollutants or flood waters to TNWs, or to reduce the amount of pollutants or flood waters reaching a TNW?
- Does the tributary, in combination with its adjacent wetlands (if any), provide habitat and lifecycle support functions for fish and other species, such as feeding, nesting, spawning, or rearing young for species that are present in the TNW?
- Does the tributary, in combination with its adjacent wetlands (if any), have the capacity to transfer nutrients and organic carbon that support downstream foodwebs?
- Does the tributary, in combination with its adjacent wetlands (if any), have other relationships to the physical, chemical, or biological integrity of the TNW?

**Note: the above list of considerations is not inclusive and other functions observed or known to occur should be documented below:**

1. **Significant nexus findings for non-RPW that has no adjacent wetlands and flows directly or indirectly into TNWs.** Explain findings of presence or absence of significant nexus below, based on the tributary itself, then go to Section III.D:
2. **Significant nexus findings for non-RPW and its adjacent wetlands, where the non-RPW flows directly or indirectly into TNWs.** Explain findings of presence or absence of significant nexus below, based on the tributary in combination with all of its adjacent wetlands, then go to Section III.D:
3. **Significant nexus findings for wetlands adjacent to an RPW but that do not directly abut the RPW.** Explain findings of presence or absence of significant nexus below, based on the tributary in combination with all of its adjacent wetlands, then go to Section III.D:
4. **Subject wetlands have a significant nexus to downstream TNW.**  
 Subject reach includes the on site wetlands and Ditches A and B down to the confluence with Schell Creek. Water from on-site wetlands flows into Ditches A and B, a tributary system of Schell Creek, which becomes the Red River downstream of the site and flows into the Lummi River, a tributary of Lummi Bay, a tidal waterbody used for interstate and foreign commerce.

Watershed has been extensively developed for agricultural, commercial and residential uses, downstream waters of Schell Creek receive stormwater and urban runoff from an 870 acre basin. Essential Fish Habitat for Pacific Salmon (designated under the Magnuson-Stevens Fishery Conservation and Management Act) extends from the TNW (Lummi Bay) upstream into Schell Creek. Fish species listed under the Endangered Species Act utilize the waters of Schell Creek; designated critical habitat for chinook salmon exists in Schell Creek.

Associated wetland functions are minimal wildlife habitat and habitat diversity, moderate enhanced food web support, moderate floodwater storage/attenuation, and moderate sediment input reduction and toxin removal.

The wetlands create and transfer organic carbon which supports the downstream food web of the TNW. Wetlands improve downstream water quality in TNW through sediment and toxin interception. The lengthy vegetated tributary/wetland complexes have the capacity to capture pollutants (road runoff petrochemicals, herbicides, pesticides and sediments) to reduce the amount of pollutants, sediments or flood waters from reaching the TNW. Wetlands attenuates downstream flooding by reducing peak flow in the watershed during major storm events and attenuates erosion by detaining high flows during storms and reduce the duration of erosive flows, thus decreasing downstream erosion in streams.

**D. DETERMINATIONS OF JURISDICTIONAL FINDINGS. THE SUBJECT WATERS/WETLANDS ARE (CHECK ALL THAT APPLY):**

1. **TNWs and Adjacent Wetlands.** Check all that apply and provide size estimates in review area:  
 TNWs: linear feet width (ft), Or, acres.  
 Wetlands adjacent to TNWs: acres.
2. **RPWs that flow directly or indirectly into TNWs.**  
 Tributaries of TNWs where tributaries typically flow year-round are jurisdictional. Provide data and rationale indicating that tributary is perennial:  
 Tributaries of TNW where tributaries have continuous flow “seasonally” (e.g., typically three months each year) are jurisdictional. Data supporting this conclusion is provided at Section III.B. Provide rationale indicating that tributary flows seasonally: Based on information provided by the consultant, the unnamed tributary has persistent annual flow between November and April (6 months).

Provide estimates for jurisdictional waters in the review area (check all that apply):

- Tributary waters: 2,260 linear feet: 3 feet wide (avg.) – 0.15 acre  
 Other non-wetland waters: .

Identify type(s) of waters:

**3. Non-RPWs<sup>8</sup> that flow directly or indirectly into TNWs.**

- Waterbody that is not a TNW or an RPW, but flows directly or indirectly into a TNW, and it has a significant nexus with a TNW is jurisdictional. Data supporting this conclusion is provided at Section III.C.

Provide estimates for jurisdictional waters within the review area (check all that apply):

- Tributary waters: linear feet width (ft).  
 Other non-wetland waters: acres.

Identify type(s) of waters: .

**4. Wetlands directly abutting an RPW that flow directly or indirectly into TNWs.**

- Wetlands directly abut RPW and thus are jurisdictional as adjacent wetlands.  
 Wetlands directly abutting an RPW where tributaries typically flow year-round. Provide data and rationale indicating that tributary is perennial in Section III.D.2, above. Provide rationale indicating that wetland is directly abutting an RPW:  
 Wetlands directly abutting an RPW where tributaries typically flow “seasonally.” Provide data indicating that tributary is seasonal in Section III.B and rationale in Section III.D.2, above. Provide rationale indicating that wetland is directly abutting an RPW: The report titled, “*City of Ferndale Detention Pond Site Wetland/Fish and Wildlife Reconnaissance and Delineation*,” dated February 2008 and the addendum dated November 11, 2008, identifies the boundary of Wetland C as abutting both Ditch A and Schell Creek.

Provide acreage estimates for jurisdictional wetlands in the review area: **10.40 acres.**

**5. Wetlands adjacent to but not directly abutting an RPW that flow directly or indirectly into TNWs.**

- Wetlands that do not directly abut an RPW, but when considered in combination with the tributary to which they are adjacent and with similarly situated adjacent wetlands, have a significant nexus with a TNW are jurisdictional. Data supporting this conclusion is provided at Section III.C.

Provide acreage estimates for jurisdictional wetlands in the review area: **0.21 acres.**

**6. Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs.**

- Wetlands adjacent to such waters, and have when considered in combination with the tributary to which they are adjacent and with similarly situated adjacent wetlands, have a significant nexus with a TNW are jurisdictional. Data supporting this conclusion is provided at Section III.C.

Provide estimates for jurisdictional wetlands in the review area: acres.

**7. Impoundments of jurisdictional waters.<sup>9</sup>**

As a general rule, the impoundment of a jurisdictional tributary remains jurisdictional.

- Demonstrate that impoundment was created from “waters of the U.S.,” or  
 Demonstrate that water meets the criteria for one of the categories presented above (1-6), or  
 Demonstrate that water is isolated with a nexus to commerce (see E below).

**E. ISOLATED [INTERSTATE OR INTRA-STATE] WATERS, INCLUDING ISOLATED WETLANDS, THE USE, DEGRADATION OR DESTRUCTION OF WHICH COULD AFFECT INTERSTATE COMMERCE, INCLUDING ANY SUCH WATERS (CHECK ALL THAT APPLY):<sup>10</sup>**

**F. NON-JURISDICTIONAL WATERS, INCLUDING WETLANDS (CHECK ALL THAT APPLY):**

**SECTION IV: DATA SOURCES.**

**A. SUPPORTING DATA. Data reviewed for JD (check all that apply - checked items shall be included in case file and, where checked and requested, appropriately reference sources below):**

- Maps, plans, plots or plat submitted by or on behalf of the applicant/consultant: project drawings, wetland delineation, and mitigation plan.  
 Data sheets prepared/submitted by or on behalf of the applicant/consultant.  
 Office concurs with data sheets/delineation report.  
 Office does not concur with data sheets/delineation report.

<sup>8</sup>See Footnote # 3.

<sup>9</sup>To complete the analysis refer to the key in Section III.D.6 of the Instructional Guidebook.

<sup>10</sup>Prior to asserting or declining CWA jurisdiction based solely on this category, Corps Districts will elevate the action to Corps and EPA HQ for review consistent with the process described in the Corps/EPA Memorandum Regarding CWA Act Jurisdiction Following Rapanos.

- Data sheets prepared by the Corps: .
- Corps navigable waters' study: .
- U.S. Geological Survey Hydrologic Atlas: .
  - USGS NHD data.
  - USGS 8 and 12 digit HUC maps.
- U.S. Geological Survey map(s). Cite scale & quad name: 7.5min, Ferndale Quad.
- USDA Natural Resources Conservation Service Soil Survey. Citation: .
- National wetlands inventory map(s). Cite name: .
- State/Local wetland inventory map(s):WA Dept. of Ecology, 2001.
- FEMA/FIRM maps: .
- 100-year Floodplain Elevation is: (National Geodetic Vertical Datum of 1929)
- Photographs:  Aerial (Name & Date):WA Dept of Ecology, 2005.  
or  Other (Name & Date): .
- Previous determination(s). File no. and date of response letter: .
- Applicable/supporting case law: .
- Applicable/supporting scientific literature: .
- Other information (please specify): .

**B. ADDITIONAL COMMENTS TO SUPPORT JD:**

In an addendum provided by the agent dated November 11, 2008, the following information was provided:

“Wetland A is 20 feet from its closest point to the ditch [Ditch A]. Wetland B is 64 feet from its closest point to the ditch [Ditch A]. Both Wetlands A and B slope southwest and therefore they are seasonally connected to the ditch. Vegetation is herbaceous between both Wetlands A and B to the ditch.”

“Wetland D is likely connected via overland flow during the wet season and storm events to the ditch [Ditch B] that flows south along the western edge of the proposed project site. There is an estimated 4 percent slope to the south of Wetland D with emergent vegetation.”