



**Snohomish County Public Works**

# **ENVIRONMENTAL CHECKLIST**

## **Maple Road and Ash Way Intersection and Drainage Improvements**

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### **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.

## **SUMMARY**

### **A. BACKGROUND**

1. Name of proposed project:  
**Maple Road and Ash Way Intersection and Drainage Improvements**
  
2. Name of applicant:  
**Snohomish County Public Works  
Engineering Services Division**
  
3. Address and phone number of applicant and contact person:  
**Mary Auld, Senior Environmental Planner  
Transportation and Environmental Services Division  
3000 Rockefeller Avenue, M/S 607  
Everett, WA 98201**  
  
**(425) 388-3488 ext. 4510  
[mary.auld@snoco.org](mailto:mary.auld@snoco.org)**
  
4. Date checklist prepared:  
**June 27, 2016**
  
5. Agency requesting checklist:  
**Snohomish County Public Works  
Transportation and Environmental Services Division**

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

**The project is scheduled to be constructed in 2017, pending permits and approvals.**

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.

- **Technical Memorandum, PACE Engineers, Inc., June, 2012**
- **Ash Way/Maple Road Flood Protection Alternative Analysis Report, WHPacific, November, 2013**
- **Maple Road/Ash Way Drainage Analysis (Draft), Northwest Hydraulic Consultants, September 11, 2015**
- **Maple Road/ Ash Way Improvement Project (Draft Report), Geotechnical Engineering Services, Snohomish County, Washington, Landau Associates, September 11, 2015**
- **Maple Road/Ash Way Intersection and Drainage Improvement Project, Full Drainage Report (60% Submittal), Pertee, February, 2016**
- **Critical Area Study (Draft), Snohomish County Public Works, June, 2016**
- **Biological Assessment (Draft), Snohomish County Public Works, June, 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.

**No applications are pending.**

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

**The following permits and approvals may be required:**

**Permit/Approval:**

**Required from:**

**Land Disturbing Activity (LDA) Permit  
Critical Area Certification**

**Snohomish County  
Snohomish County**

**Section 404 of the Clean Water Act**

**U.S. Army Corps of Engineers**

**Section 7 of the Endangered Species Act**

**National Marine Fisheries  
Service and US Fish and  
Wildlife Service**

**Section 106 of the National Historic  
Preservation Act**

**Federal Lead Agency  
(Corp of Engineers)**

**Section 401 Water Quality and  
CZM Certification**

**Washington State  
Department of Ecology**

<b>Critical Area Permit</b>	<b>City of Lynnwood</b>
<b>Right of Way Permit</b>	<b>City of Lynnwood</b>
<b>Grading, Stormwater, and Road Improvement Permit</b>	<b>City of Lynnwood</b>
<b>Weekend Work Permit</b>	<b>City of Lynnwood</b>

11. Give a 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.)

**Snohomish County and the City of Lynnwood are working together to address flooding in the vicinity of the intersection of Maple Road and Ash Way. Frequent flooding of this intersection forces multiple road closures per year, negatively impacting access into Lynnwood and emergency vehicle response times.**

**The project area is adjacent to a large, high quality wetland complex (approximately 300 acres) associated with Swamp Creek. The project area generally drains to the northeast and south toward Swamp Creek through ditches, stormwater pipes, culverts, and a Washington State Department of Transportation (WSDOT) stormwater pond.**

**During relatively moderate rain events Swamp Creek swells, increasing water runoff into storm pipes and culverts, reducing flow capacity. The intersection is the low point and during high flow events the existing culverts become plugged with sediment causing flooding on the roadway. There is minimal grade change between Swamp Creek and the roadway intersection which contributes to the frequent flooding.**

**The project area is also underlain with peat up to 30 feet thick. Peat is very compressible and the weight of the existing roads has compacted the peat, contributing to settlement of the intersection area. See attached Figure: Existing Conditions.**

**Snohomish County and the City of Lynnwood propose to raise the elevation of the intersection and increase the capacity of the drainage system. Approximately 600 feet of Ash Way and 700 feet of Maple Road would be raised from 0' to approximately 5' above the current elevation using a combination of pin piles, pile caps, grade beams. A structural slab would be used to reconstruct the roadway. Pin piles would be driven 37 to 42 feet below the ground surface through the peat soils and down to a stable glacial till layer. The elevation of the new intersection will be a minimum of six inches above the existing 25-year flood elevation of Swamp Creek.**

**In addition to raising the road, it is also necessary to increase the capacity of the drainage system to reduce upstream flooding. The project will realign short sections of Tunnel Creek and Maple 525 Creek to bypass the WSDOT stormwater facility and direct the water to Dogwood Creek instead. This will require constructing new swales, two new culverts and an 850-foot section of new stream channel through the wetland complex. (See Attached Figure: Proposed Conditions).**

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

**The Maple Road/Ash Way Intersection and Drainage Improvement project is located in southwest Snohomish County, Washington. The project area is northwest of the intersection of Interstate 5 and Interstate 405 (see Figure 1, Vicinity Map) in Sections 10, 11, and 14, Township 27 N, and Range 4 E. The project site extends approximately 350 feet north on Ash Way and 250 feet south from the intersection of Maple Road/Ash Way. The project site also extends approximately 200 feet west and 500 feet east on Maple Road. Maple Road and Ash Way are currently two-way, two-lane roads.**

## **B. ENVIRONMENTAL ELEMENTS**

### **1. Earth**

a. General description of the site (circle one): flat, rolling, hilly, steep slopes, mountainous, other.

**The project area is generally flat.**

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

**The area around the intersection is flat. The steepest slopes are approximately 0 to 2 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 agricultural land of long-term commercial significance and whether the proposal results in removing any of these soils.

**According to the Natural Resources Conservation Service (NRCS) soil survey, the predominant soil type that underlies the project area, as well as the tributary upstream and downstream areas, is Mukilteo muck. Slopes are 0 to 2 percent. Mukilteo muck is a very deep, poorly drained organic soil derived from sedges and other emergent wetland plants. It is underlain by loamy soil at a depth of about 60 inches. If Mukilteo muck soils are drained, they are susceptible to subsidence due to the high organic content. The project area is also underlain**

**with peat up to 30 feet thick. The weight of Ash Way and Maple Road pavements has compressed the peat contributing to settlement of the roadway.**

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

**A geotechnical analysis was prepared for this project by Landau Associates. Although there is evidence of settlement due to the underlying peat, there are no indications of slope stability or erosion. Pin piles will be driven down to approximately 37 to 42 feet below the ground surface through the peat soils to a stable glacial till layer to provide support for the roadway.**

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.

**The purpose of the filling and grading is raise the roadway in the project area so that it is a minimum of six inches above the existing 25 year flood elevation of Swamp Creek. The fill will be gravel borrow compacted in place. Gravel backfill will be used for walls.**

**Approximately 500 feet of Ash Way and 580 feet of Maple Road will be raised. The fill area is on both of these roadways and extending to the catch lines for a total of approximately 82,000 Square Feet or 1.9 acres. The approximate fill quantities include:**

**Gravel borrow = 6,120 tons**

**Gravel backfill for walls = 65 cubic yards**

**Estimated cut to excavate stream channel = 400 cubic yards**

**The affected area is approximately 2.09 acres. Fill material will be from an approved source as supplied by the contractor. The source will likely be a nearby rock quarry or gravel yard. All structural fill would be placed in accordance with Washington State Department of Transportation (WSDOT) standards.**

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

**Yes, erosion could occur during clearing and grading activities for the road improvement project. There may be temporary stockpiling of excavated soils during construction. However, these activities would not result in significant adverse erosion related impacts. Best Management Practices (BMPs) would be used for temporary erosion and pollution control. Stormwater runoff generated on the construction site will be directed to existing systems or temporary sediment basins.**

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

**The existing roadway intersection will be replaced in the same alignment. The existing site is covered with approximately 80 percent impervious surface. No new impervious surface is being added as a result of this project.**

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

**No significant adverse impacts are anticipated. All necessary Best Management Practices (BMPs) would be used throughout the project during construction to prevent erosion. These BMPs would be in place around stockpiles of excavated**

fill and would prevent sediments from entering surface water and storm drainage systems. In addition, there would be seeding and planting of bare soil areas after establishment of final grades.

## 2. Air

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

**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 long-term 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.

**Construction of this project will not exceed applicable state and federal air quality standards.**

## 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.

#### **Streams in the project area:**

**There are four creeks in the project area: Maple 525 Creek, Tunnel Creek, Dogwood Creek and a short unnamed creek. Existing stormwater runoff is collected into the road ditches into which Maple 525 Creek and Tunnel Creek flow. The creeks flow in culverts under the roads toward a WSDOT stormwater detention pond. The stormwater pond is adjacent to Maple Road and outlets to a short section of creek that joins Swamp Creek. Swamp Creek is a fish bearing stream that continues south to Lake Washington. A fourth creek, Dogwood Creek is a tributary to Swamp Creek. See attached figure: Existing Conditions**

**Swamp Creek is approximately 14.7 miles long with headwaters in south Everett. The creek is a salmonid-bearing tributary flowing south southeast discharging to the Sammamish River at River Mile 0.8 at the north end of Lake Washington in Kenmore. The general topography is gently sloping from north to south. Swamp Creek has a low gradient through most of its length. The upper reaches of the creek often go dry during the summer months. Swamp Creek is a typical urban stream with a “flashy” hydrograph, characterized by rapid rise and fall of water levels during storm events. The creek has a low base flow, with recorded 2-year,**

7-day low flows of 4 cubic feet per second (cfs) (USGS Gage data 2010). Flood flows have been recorded as high as 1,090 cfs near RM 0.5.

The upper middle reaches of Swamp Creek run primarily through an area of low to moderate density suburban residential land use. Adjacent to the City of Brier, Swamp Creek picks up flow from its largest tributary stream, Scriber Creek. Downstream of the Scriber confluence, Swamp Creek flows through a predominantly low-density suburban residential area. The lower segments of the creek, located in King County, flow through residential and commercial developments associated with the Kenmore/Bothell areas. The main stem of Swamp Creek drains into the Sammamish River just upstream of its outlet into Lake Washington.

Salmon use has declined quite dramatically in the watershed in the past 30 years. Streams in the Swamp Creek watershed have been degraded by several factors, including a significant increase in the road network, stormwater carrying pollutants from increased impervious surfaces, and reduction of vegetative cover, particularly in riparian areas.

Extensive wetlands once dominated the headwaters of Swamp Creek. Most of the high quality wetlands and salmonid spawning and rearing habitats are still found in the upper reaches, as well as one of the largest populations of freshwater mussels found in the Puget Sound Lowlands. Less than 20 percent of the Swamp Creek basin is forested. Its riparian zones are characterized by landscaped areas, herbaceous vegetation, shrubs and various exotics. In some places, the forested riparian zone is fairly wide and contains mostly mixed coniferous and deciduous forest with few road crossings.

#### Wetlands in the project area:

A large mature forest and sphagnum bog wetland is associated with Swamp Creek, north of the project area. Several smaller wetlands are located north and south of the proposed intersection improvements. The project will impact portions of six wetlands and their associated buffers:

#### Wetland A (Palustrine open water/emergent-POW/PSS)

Wetland A is located within a wide roadside ditch between SR 525 and Maple Road. This area is identified as a WSDOT stormwater pond. The wetland is dominated by reed canarygrass (*Phalaris arundinacea*), cattail (*Typha latifolia*) and Himalayan blackberry (*Rubus armeniacus*). Soils are black (10YR 2/1) silt loam from zero to 16 inches deep. Evidence of wetland hydrology includes standing water. Wetland A is identified by Snohomish County as a Type F (fish-bearing) stream. Tunnel Creek and Maple Creek drain to Wetland A.

#### Wetland E (Palustrine emergent/Palustrine scrub-shrub – PEM/PSS)

Wetland E is a relatively large (300 acre) Category II wetland located north of Maple Road between Alder Way and Ash Way. This wetland includes several streams, mature forest and sphagnum bog habitats. Vegetation adjacent to the

road is dominated by Douglas spiraea (*Spiraea douglasii*), salmonberry (*Rubus spectabilis*), buttercup (*Ranunculus repens*), lady fern (*Athyrium filix-femina*) and reed canarygrass (*Phalaris arundinacea*). Overstory species includes black cottonwood (*Populus balsamifera*), paper birch (*Betula papyrifera*), and red alder (*Alnus rubra*). Soils are black (10YR 2/1) sandy loam from zero to 18 inches deep. These soils met the definition of dark surface. Evidence of wetland hydrology includes standing water. Swamp Creek and Dogwood Creek are associated with this wetland.

**Wetland F (Palustrine emergent – PEM)**

Wetland F is located in the northeast corner of the Ash Way/Maple Road intersection. This wetland is associated with a roadside ditch and is dominated by reed canarygrass (*Phalaris arundinacea*), Himalayan blackberry (*Rubus armeniacus*), and willow (*Salix sp.*). Overflow from this wetland crosses under Maple Road and enters Wetland J. Soils are roadside fill.

**Wetland G/I (Palustrine forested – PFO)**

Wetland G/I is located in the southwest section of the Ash Way/Maple Road intersection. This wetland is dominated by willow (*Salix sp.*), salmonberry (*Rubus spectabilis*), buttercup (*Ranunculus repens*), lady fern (*Athyrium filix-femina*) and reed canarygrass (*Phalaris arundinacea*). Overstory species includes black cottonwood (*Populus balsamifera*), red alder (*Alnus rubra*), and Western red cedar (*Thuja plicata*). Soils were black (10YR 2/1) sandy loam from zero to 18 inches deep. Hydrology included standing water. Maple 525 Creek is associated with this wetland.

**Wetland H (Palustrine forested – PFO)**

Wetland H is located in the northwest corner of the Ash Way/Maple Road intersection. This area is heavily impacted by an Arco gas station and Ash Way. Vegetation is dominated by willow (*Salix sp.*). Soils were roadside fill. Hydrology includes standing water. Maple 525 Creek is associated with this wetland.

**Wetland J (Palustrine emergent/Palustrine scrub-shrub – PSS/PSS)**

Wetland J is located in the southeast of the Ash Way/Maple Road intersection. Vegetation is dominated by willow (*Salix sp.*). Soils were roadside fill. Hydrology includes standing water.

- 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.

**The intersection improvements will be adjacent to the existing wetlands and ditched creeks.**

**Existing Drainage:**

**Existing stormwater runoff is collected into the roadside ditches in which Tunnel Creek and Maple 525 Creek flow. Maple 525 Creek currently flows to the south along the west side of Ash Way, north of the intersection. The stream crosses under Maple Road in a 30-inch corrugated metal pipe (CMP) culvert and joins**

**Tunnel Creek. The stream continues south before entering a 36-inch CMP culvert and crossing under Maple Road. It then flows south in a ditch for a short distance before entering a 42-inch CMP culvert under the SR 525 overpass and into a WSDOT stormwater pond. The pond outlets to the south through a 24-inch CMP culvert with a control structure under Maple Road, into the large wetland complex where it joins Swamp Creek.**

**Proposed Drainage:**

**To improve stormwater conveyance Maple 525 Creek is proposed to be routed under Ash Way in a new 36-inch concrete culvert. Tunnel Creek will also be rerouted through a new culvert under the intersection of Maple Road and Ash Way to join with Maple 525 Creek. The combined waters will flow through a new 850 foot long excavated channel and meander easterly through a Category II wetland, connecting with Dogwood Creek.**

**An earthen berm will be constructed on the west side of Ash Way to ensure the flows are routed to the new Tunnel Creek channel. The proposed realignment of Tunnel Creek will improve the existing ditch and culvert system and reduce flow through the WSDOT stormwater pond.**

**The proposed new channel will become a tributary to Dogwood Creek, which flows into Swamp Creek. The excavated channel will be constructed to provide additional habitat for rearing salmonids. The removal of Tunnel Creek from its current alignment through the WSDOT pond would be beneficial to overall fish passage and water quality. Currently, fish passage through Tunnel Creek is limited due to high velocities and the pond's flow restrictor configuration. The large volume of water entering the WSDOT pond from Tunnel Creek likely flushes out the pond prematurely, decreasing the residence time. Removal of Tunnel Creek from the WSDOT pond would also allow it to function as designed and improve the water quality and detention of the SR 525 drainage area. Connecting Tunnel Creek directly to the Dogwood/Swamp Creek channel would benefit fish passage through the system.**

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

**Approximately 586 cubic yards of fill will be placed in wetlands. There will be approximately 614 cubic yards of cut in wetlands. The source of the fill is unknown at this time. The source will likely be a nearby rock quarry or gravel yard. All fill material will be from an approved source as supplied by the contractor. All structural fill would be placed in accordance with Washington State Department of Transportation (WSDOT) standards.**

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

**Yes, a new channel is proposed to reroute the flow of Maple 525 Creek and Tunnel Creek. See Proposed Drainage above.**

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

**No.**

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.**

**b. Ground Water:**

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

**No ground water will be withdrawn. A new channel will be constructed to direct flows of Maple 525 and Tunnel Creek to Dogwood Creek. During high flows this new channel may contribute to ground water.**

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.

**The source of runoff entering the site is via rainfall directly onto the project site area or via creek flow from Maple 525 Creek and Tunnel Creek. Upon project completion, on-site runoff as well as upstream runoff entering the project site will be collected in the proposed catch basins, roadside ditches and drainage channels. Two new larger culverts and approximately 850 feet of new stream channel are proposed to improve the drainage system and alleviate the frequent flooding in the area of the intersection.**

**The project will realign short sections of Tunnel Creek and Maple 525 Creek to improve stormwater runoff. Maple 525 will be routed in a new 36" corrugated metal pipe (CMP) under Ash Way. Tunnel Creek will be routed in a new 4.5' x 10' box culvert under the intersection of Ash Way and Maple Road. The combined creeks will be directed to a new 850-foot stream channel, which will connect to Dogwood Creek (see figure: Proposed Conditions).**

**Redirecting the stormwater runoff will bypass the WSDOT stormwater facility. Two new berms will be constructed to the south of the intersection to direct flows into the new Tunnel Creek channel.**

2) Could waste materials enter ground or surface waters? If so, generally describe.  
**No waste materials would enter ground or surface water.**

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

**Yes, the project re-aligns Tunnel Creek and Maple 525 Creek as described above. Approximately 850 feet of new channel will be constructed to direct Tunnel and Maple 525 Creeks to Dogwood Creek.**

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

**The intersection of Maple Road and Ash Way will be raised and larger culverts installed to improve drainage in the vicinity and reduce the occurrence of flooding. A new channel will be constructed to direct water to Dogwood Creek. These measures will result in improved control of surface, ground and stormwater runoff water in this area.**

#### **4. Plants**

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

**Deciduous trees: Red alder (*Alnus rubra*), Big leaf maple (*Acer macrophyllum*), Black cottonwood (*Populus balsamifera*), Paper birch (*Betula papyrifera*), Pacific willow (*Salix lasiandra*)**

**Evergreen trees: Western red cedar (*Thuja plicata*), Douglas fir (*Pseudotsuga menziesii*), Spruce (*Picea sitchensis*)**

**Shrubs: Douglas spirea (*Spirea douglasii*), Salmonberry (*Rubus cervis*), Red osier dogwood, Vine Maple (*Acer circinatum*)**

**Grass: Reed canary grass (*Phalaris arundinacea*)**

**Pasture: none**

**Crop or grain: none**

**Orchards, vineyards or other permanent crops: none**

**Wet soil plants: Lady fern (*Athyrium filix-femina*), Buttercup (*Ranunculus repens*), Stinging nettles (*Urtica dioica*), Cattail (*Typha latifolia*), Deer Fern (*Blechnum spicant*), Soft rush (*Juncus effusus*)**

**Water plants: water lily, eelgrass, milfoil, other: Submerged aquatic vegetation is found in the WSDOT stormwater pond**

**Other types of vegetation: Himalayan blackberry (*Rubus armeniacus*), English Ivy (*Hedera helix*)**

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

**Much of the area where the road will be raised is currently underneath the SR 525 overpass and consists of bare soil. The vegetation to be impacted under the raised roadway is primarily herbaceous species such as grasses, ferns, English ivy, stinging nettle and other invasive species. The vegetation outside of the underpass is primarily roadside vegetation such as grasses, buttercup, blackberries and woody shrubs such as willow and spirea. Trees adjacent to the road are primarily cottonwood and birch.**

**In order to construct the proposed stream channel several types of vegetation will be impacted. Approximately 850 feet of stream channel will be dug through the existing wetland (Wetland E) to connect Tunnel/Maple 525 Creeks with Dogwood Creek. The vegetation in the stream alignment is primarily herbaceous species, woody shrubs, cottonwoods and birch. The alignment of the stream will be sited to avoid removing large trees. Impacts to the wetland will be minimized by removing the spoils from the site as the channel is constructed.**

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

**None are known to be on or near the site.**

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

**Impacts to critical areas and their buffers will be avoided or minimized where possible. All areas temporarily impacted by the project will be replanted with native shrubs and trees that are suited for the growing conditions.**

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

**The invasive species found in the project area include: English ivy (*Hedera helix*), stinging nettles (*Urtica dioica*), and Himalayan blackberry (*Rubus armeniacus*).**

## **5. Animals**

- a. List any birds and other animals which have been observed on or near the site or are known to be on or near the site. Examples include:

**The project area is primarily roads and road shoulder. Wildlife are likely limited to those that have adapted to this developed roadside environment. However, to the north of the intersection is a large, undeveloped wetland associated with Swamp Creek that likely includes additional species. Species known to be on the site include:**

**birds: sparrows, robins, common crows, hawks, heron, eagle, songbirds, owls, ducks, woodpeckers**

**mammals:** deer, beaver, opossum, raccoon, coyote, small rodents,  
**fish:** Chinook salmon, steelhead, sticklebacks

- b. List any threatened and endangered wildlife species known to be on or near the site. **As of June 2016 the following threatened, endangered, sensitive, or priority species that may be found within the project area.**

Common Name	Latin Name	Federal Listing	State Listing
Puget Sound ESU Chinook	<i>Oncorhynchus tshawytscha</i>	Threatened	Candidate
Puget Sound Steelhead	<i>Oncorhynchus mykiss</i>	Threatened	N/A
Bald eagle	<i>Haliaeetus leucocephalus</i>	Species of Concern	Sensitive

**Where federally threatened and endangered species are found, all work will conform to the requirements of the Endangered Species Act administered by the US Fish and Wildlife Service and National Marine Fisheries Service. Where state listed species or Priority Habitats and Species (PHS) are found, the Washington Department of Fish and Wildlife Priority Habitats and Species recommendations will be followed, when appropriate. The most current PHS list can be found at: <http://wdfw.wa.gov/conservation/phs/list/>.**

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

**The site lies within the Pacific Flyway for migratory birds of all types. The flyway stretches between Alaska and South America. All migratory birds are protected by the Migratory Bird Treaty Act administered by the US Fish and Wildlife. Bald eagles are protected by the Bald and Golden Eagle Protection Act also administered by the USFWS.**

**The site is located near a stream that Endangered Species Act (ESA) listed salmonids may use when moving between from Swamp Creek to Lake Washington.**

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

**Raising the existing road on the same alignment will cause minimal impact to wildlife species. Areas impacted by construction will be reseeded and replanted, if needed. Culverts will be upsized to convey flood waters and provide fish passage. The new Tunnel Creek channel will be planted with shrubs and will provide additional fish rearing habitat. The rerouting of Tunnel Creek away from the WSDOT Stormwater pond via a new stream channel is proposed to enhance fish habitat. Timing for in water work will conform to Washington Department of Fish and Wildlife (WDFW) requirements.**

**Project construction would occur primarily during the summer months when rainfall is minimal. This will minimize erosion and prevent sedimentation of surface waters that could adversely affect downstream fish. Bare soil areas would be revegetated and planted after site grades have been established. Wetland mitigation areas will be designed to enhance habitat. Mitigation areas will be planted with native trees and shrubs.**

**Mitigation for impacts to wetlands is proposed on a wetland parcel adjacent to North Creek Park. This parcel will be enhanced with native trees and shrubs to improve wildlife habitat and water quality.**

- c. List any invasive animal species known to be on or near the site.  
**None known.**

## **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.

**Minor amounts of fuel would be used by construction equipment to construct the project.**

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 and other construction related fluids could potentially be spilled during construction.**

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

**None known.**

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.

**None known. An Arco gas station is located in the northwest corner of the project intersection.**

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.

**Spills of fuel or other equipment fluids could potentially occur during construction. Spill control and clean-up material would be staged onsite. The crew leader, or other designated person, will have a spill control plan and be trained in spill prevention and clean up. All equipment will be well maintained and in good repair to prevent the loss of any petroleum products. Refueling and vehicle maintenance would generally occur off-site.**

4) Describe special emergency services that might be required.

**No special emergency services are anticipated. Emergency response vehicles may be required in the event of a construction accident. The completed project would not require any additional emergency services.**

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

**An Environmental Site Assessment will be prepared prior to construction to address any potential soil contamination or other hazardous materials in the project area. If any hazardous materials are discovered during project construction, they would be handled and disposed of according to adopted Washington State and local codes governing their disposal.**

**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. Vehicle fueling and handling of other potential contaminants 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)?

**None.**

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.

**Construction noises may be generated and increased on a short-term basis by heavy equipment. These noise levels are likely to exceed existing background noise levels associated with the surrounding residential and commercial properties.**

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

**Noise levels will not exceed applicable state and national standards. Construction will normally be limited to the hours between 7:00 am and 5:00 pm Monday through Friday. Construction equipment will meet Occupational Safety and Health Administration (OSHA) and other applicable noise standards.**

## 8. Land and Shoreline Use

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

**The project site is existing road right-of-way for the City of Lynnwood and Snohomish County. WSDOT State Route 525 crosses above the project area on pilings. Adjacent uses include a gas station, a WSDOT stormwater facility and critical areas (wetlands and streams). Minor impacts to the wetlands and streams will result from the intersection widening and stream rerouting. No other adjacent land use will be impacted.**

**The road shoulder on Maple Road and Ash Way is designated as part of the Interurban Trail. The Interurban Trail is an 11.8 mile bike and pedestrian route. This trail is a joint project between Snohomish County, the cities of Everett and Lynnwood, and Public Utility District No.1 of Snohomish County. While most of the trail is separated from motorized traffic, there are several places where the trail is a designated bike route on the road shoulder.**

b. Has the 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 non-farm or non-forest use?

**No.**

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:

**No.**

c. Describe any structures on the site.

**There is a gas station north of Maple Road between Ash Way and Alderwood Mall Parkway. The State Route 525 overpass crosses above the project area.**

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

**No structures will be demolished.**

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

**The project is on the border between the City of Lynnwood and unincorporated Snohomish County. The current zoning in the unincorporated Snohomish County area of the site is: Public Institutional Use (stormwater facility), Urban Low Density (4 to 6 Dwelling Units/Acre) and Urban Medium Density Residential.**

**The zoning on the adjacent City of Lynnwood side is Planned Commercial Development (PCD), Planned Regional Center (PRC) and Commercial Residential (CR).**

- f. What is the current comprehensive plan designation of the site?  
**The current Comprehensive Plan designations for the unincorporated Snohomish County area adjacent to the site is: Rural Conservation, Residential 7,200 square feet, Business Park and Low Density Multiple residential.**
- The current Comprehensive Plan designations for the City of Lynnwood area adjacent to the project site is: Regional Commercial.**
- g. If applicable, what is the current shoreline master program designation of the site?  
**N/A**
- h. Has any part of the site been classified critical area by the city or county? If so, specify.  
**There are nine wetlands and four streams within the project area (see Surface Waters section above for more information).**
- 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:  
**None proposed.**
- l. Proposed measures to ensure the proposal is compatible with existing and projected land uses and plans, if any:  
**The project is consistent with the Transportation Element of the adopted Snohomish County Growth Management Act Comprehensive Plan and the City of Lynnwood Comprehensive Plan, City of Lynnwood Surface Water Management Comprehensive Plan.**
- m. Proposed measures to ensure the proposal is compatible with nearby agricultural and forest lands of long-term commercial significance, if any:  
**None proposed.**

## 9. Housing

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

**No structures are proposed.**

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

**No views would be altered or obstructed. The road will be raised from several inches to several feet, however the increase in height will not obstruct views. Some roadside vegetation will be removed to accommodate road improvements.**

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

**Temporarily disturbed areas will be revegetated following project construction.**

## 11. Light and Glare

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

**N/A**

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

**No.**

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

**None.**

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

**None proposed.**

## 12. Recreation

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

**Maple Road and Ash Way are part of the Interurban Trail system. The trail is on a widened road shoulder in this section. At the intersection, the trail crosses between the City of Lynnwood and unincorporated Snohomish County. Trail users may be temporarily detoured during construction. The intersection improvements will not impact the trail.**

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

**No.**

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

**None proposed.**

## 13. Historic and Cultural Preservation

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, generally describe.

**No.**

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.

**None.**

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.

**The site was screened by Public Works for proximity to known archeological and cultural sites. There are no known recorded sites located where potential ground disturbing activities are proposed.**

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.

**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 will be made before proceeding with the work and the Department of Archaeology and Historic Preservation will be contacted. If artifacts are uncovered within the project area, work in that area will be stopped and a professional archaeologist will be brought in to examine them.**

## 14. Transportation

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

**The project site is at the intersection of Maple Road and Ash Way. This intersection is on the boundary between the City of Lynnwood and unincorporated Snohomish County. This intersection provides access to the Alderwood Mall shopping area of Lynnwood. The intersection may be closed during construction and a detour route provided.**

**A section of State Route 525 (SR 525) is raised above the intersection and crosses over Maple Road on pilings. SR 525 is a four lane, controlled access freeway which begins at I-5 and terminates on Whidbey Island.**

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?

**The closest bus stop to the project area is on Alderwood Mall Parkway, one block west of the project intersection. This area is served by Community Transit.**

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

**No parking spaces will be created or eliminated.**

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

**The purpose of this project is to improve the existing road intersection and reduce the flooding in the project area.**

e. Will the project or proposal 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 or proposal? If known, indicate when peak volumes would occur and what percentage of the volume would be trucks (such as commercial or non-passenger vehicles). What data or transportation models were used to make these estimates?

**No new vehicular trips will be generated by the completed project.**

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.

**None proposed.**

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

**The proposed project will improve transportation in this area by raising the roadway, improving the drainage and reducing the flooding events in this area. The project will reduce the number of times the intersection is closed due to flooding.**

## 15. Public Services

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

**No. The goal of this improvement is to reduce the need to close this intersection due to flooding which reduces the need to detour around the intersection during flooding, including rerouting emergency vehicles.**

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

**None proposed.**

## 16. Utilities

a. Utilities currently available at the site:

**The utilities currently on the site are: water, power, and sewer.**

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.

**As part of this project, an existing 8-inch (approximately 165 feet) and 12-inch (approximately 310 feet) Alderwood Water and Waste Water District (AWWD) water main will need to be relocated to avoid conflict with the new structural slab and pin piles. AWWD also plans to install a new 8-inch water main extension to the east along Maple Road (approximately 525 feet).**

**An existing 10-inch AWWD sewer main runs east and west along the south side of Maple Road, connecting into a sewer manhole where the main increases in size to 12-inch before it connects to the King County sewer manhole in the intersection. Pin piles will be placed so there is no conflict with this sewer main and there will be no need to relocate.**

**An existing Snohomish County Public Utility District (PUD) power duct bank, running north and south along Ash Way, will need to be relocated to avoid conflict with the new structural slab and pin piles.**

**An existing 36-inch King County sewer main extends north along Ash Way and east along Maple Road. This sewer main is pile supported and has not succumbed to settlement. Pin piles will be placed so there is no conflict with this sewer main and there will be no need to relocate.**

**There is a City of Lynnwood lift station (#4) located near Ash Way and 26<sup>th</sup> Avenue West, just south of the project area. A stub connection may be added to the trunk line during construction of the intersection improvements.**

## **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.

**Name of signee: Mary Auld**

**Position and Agency/Organization: Senior Planner, Snohomish County Public Works**

**Date Submitted: July 5, 2016**